

MATHEMATICAL SCIENCES IN THE KARMA ANTIQUITY

BY
LAXMI CHANDRA JAIN
WITH THE COLLABORATION OF
PRABHA JAIN

VOLUME - I

GOMMAṬASĀRA (JĪVAKĀṆḌA)
THE SUMMARY OF THE REVELATION
(BIO-SECTION)



PUBLISHED BY

GULAB RANI KARMA SCIENCE MUSEUM

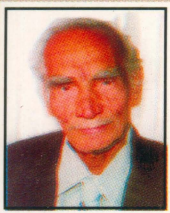
554, SARAFI PURANI BAJAJI, JABALPUR

AND

SHRI BRAHMI SUNDARI PRASTHASHRAM SAMITI

21 KANCHAN VIHAR, VIJAY NAGAR, JABALPUR (M.P.)

2008



About the Author

He was born at Saugar (M.P.) on the 1st July, 1926. He passed the M.Sc. examination in applied mathematics from the University of Saugar in 1949. Interestingly, he also holds a Diploma in Homoeopathy and Biochemistry (1971). He joined the Madhya Pradesh State Educational Service in 1951, and served various Government Colleges in various capacities till his retirement in 1984 as Principal of the Govt. P.G. College, Chhindwara. Since then he is the Honorary Director of the Acharya Shri Vidyasagara Research Institute, Vijay Nagar, Jabalpur. He is secretary of the Gulab Rani Karma Science Museum, Jabalpur.

Prof. Jain is a well-known scholar, especially, in the field of Jaina mathematics. He has carried out deep studies of Sanskrit and Prakrit texts of the Jaina School. He is very proficient in mathematical systems theory.

He is prolific writer both in Hindi and English. His writings are full of variety, covering publications in unified field theories of Einstein and Kondo, history of Indian Sciences, and popular articles which are related to general topics as well as to history of mathematics. Special mention may be made of his recently completed huge INSA project on the Labdhisāra (about 1000 A.D.) which is on advanced theory of Karma System. He has also completed an INSA project on the "Prastāra Ratnāvalī", as well as the third project from INSA on the Mathematical Contents of the Digambara Jaina Texts on the Kararānuyoga Group.

The work of Professor L.C. Jain, Dr. R.C. Gupta (Unesco representative in India) and Professor J. Needham shall go a long way in filling up the gaps in the history of science in India.

For more than three decades, Prof. L.C. Jain has been dedicated to ancient mathematics. His vast knowledge of Jaina sources and long experience has made him a great authority on Jaina Exact Sciences. He has a good knowledge not only of ancient languages (including Sanskrit and Prakrit) and of ancient exact sciences but also of some foreign languages and modern mathematical sciences.

He had been awarded the Prakrit Jnana Bharti Education Trust, Bangalore Award for his meritorious services in scientific studies of Prakrit Literature. His work, The Tao of Jain Sciences, had also been awarded by the Kūṇḍkūṇḍ Gyan Pith, Indore. He has also won the Mahāvīra Award (Jaipur), Ahimsā International Award (Delhi) and Śrūta Samvardhana Award (Meerut).

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BY

LAXMI CHANDRA JAIN

M.SC., D.H.B.

RETIRED PRINCIPAL, GOVT. P.G. COLLEGE, CHHINDWARA
Visiting Fellow, Director - A.V.R.I, Kanchan Vihar, Founder - S.B.S.P., Jabalpur

Ex. INSA Rresearch Associate

Secretary - Gulab Rani Karma Science Museum, Jabalpur

Ex. Editorial Board : JSIR, Advisor : Bhāva Vijñāna

WITH THE COLLABORATION OF

PRABHA JAIN

M.A., M. Phil., Ph.D.

DIRECTOR - SHRI PRAJNA PRAKARSH SAMITI, JABALPUR

CO-AUTHOR - COMPILER OF INSA PROJECTS

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BLESSINGS

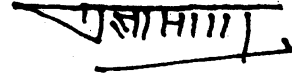
The Śaṭkhaṇḍāgama and the Kaśāyaprābhṛta are the two fundamental, universal as well as the most profound Indian heritage-texts on the mathematical theory of Karma (action).

I am delighted to find that their summary texts and commentaries thereon have been taken up for publication in their INSA project format, by Professor L.C. Jain and Dr. Prabha Jain (Compiler). This theory of Karma gave impetus not only to scientific awakening but also to spiritual awareness, for many centuries, in India as an under current. It served to break the barriers of caste, creed, nepotism, colour and to remove racial and religious prejudices throughout the world.

These texts are the Gommaṭasāra and the Labdhisāra by Nemicandra Siddhānta Cakravartī, now compiled from the INSA project (1984-87) in the "Mathematical Sciences in the Karma Antiquity" as a series of two volumes.

It is hoped that the world of scholars and the elite will find this work as thought provoking and a promoter of kindness, harmony, wisdom, peace and humanity while sweeping away all types of cruelties.

I send my heartfelt blessings to the erudite author and the compiler for accomplishing the publication of both the volumes without any hurdle or break.



Shri 108 Muni Prajñā Sāgara

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THE FORMER AUTHOR WOULD LIKE TO EXPRESS HIS SOLEMN AND CHERISHED GRATITUDE TO HIS BELOVED LATE WIFE SMT. GULAB RANI WHO COOPERATED WITH HIM FOR MORE THAN HALF A CENTURY IN HIS RESEARCH, TEACHING AND ADMINISTRATIVE WORKS.

INDEBTEDNESS IS DUE TO THE FOLLOWING ACADEMICIANS FOR THEIR TIMELY HELP:

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PROFESSOR Lakhmi C. Jain (Adelaide, Australia)

Note : Upto date printing style and setting of volumes, within a short span of time, has been made possible with the assistance of *Shri Rajesh Koshta*, Computer Typist, Jabalpur to whom the Prasthashram owes its sincere regards.

MEMORABILIA

OF

MY LATE FATHER SHRI VIJAY KUMAR JAIN



It is indeed very difficult to describe an ideal personality; a complete man following his persona which is not being replicable and has no parallel.

My father had a grand health with a height of six feet, fair colour, broad forehead, smiling bright eyes, stout walk, always joyful, attractive, simple dressed, regular life, kind heart and friendly behaviour. He was born at Sagar (M.P.) on 17/2/1944 in a reputed family. His father, Munshi Shri Dharm Chandra Jain was a freedom fighter and mother Shrimati Sona Bai was a simple natured and religious lady. His father died while involved in freedom movement towards arrest in 1960. The responsibility of maintenance of his five younger brothers, sister and mother fell on his premature shoulders. However, he struggled hard through privation, and attained the degrees of B.A., LL. B. from the Sir Hari Singh Gaur University of Sagar. Soon he got appointment as an inspector of income tax in 1965 at Sagar.

Thus he was a self-made man, taking part in poetry, sports, club activity, art , science and religious functions. He used to collect stamps, coins and was interested in astrology. He had calculated and often so spoke that he will live only upto the age of 45 years as his father lived.

With this presumption, he was utilizing every moment of his precious life while helping others, serving the cause of the Acharya Shri Vidyasagar Research Institute and Pisanhari Gurukul at Jabalpur. He extended his hearty cooperation to all who approached him in difficulties whether domestic, or social . He had great faith and love towards the ascetic orders and hence most of his time was spent in their dutiful service.

With all such social and religious activities, he was very cautious about the education of his three sons and an only daughter. He was suffering from blood pressure, still then he did not care about his health. Just a few days before his death, he was taken, under request , to the medical college hospital for check up and his cholesterol was found to be abnormal. He never worried over it and suddenly, a few days later, all heard about his sad demise due to heart failure on 15th May 1989. The whole society, family and friendly circle were shocked at his untimely death. His promotion orders were just late by eight days alone.

It was my 16th when I last lived with him, and no doubt the best part of my life... It is not because he was my beloved father but a personality I have never come across and the learning's can't be substituted.

Nothing was impossible for him and his powerful signature smile was able to get him all-out success whichever field / space was touched by him. It wasn't easy for anyone to forget him, value in his life, his kindness, passion and affection... though it could be only just a few moments shared together. An impression of a class.. unforgettable !

He had troubled childhood and great responsibilities on his shoulder.... But he had tremendous will power, strength and persuasion and he had proven him best capable person in all fields... bringing up his facility, social support, education, arts... and being best performer in the job. Worst difficult situations were turned around by him and he had always come off with flying colors, beating all odds.

At his last day, ... the market got closed following his journey to peace and every eye was wet seeing as their personal loss and that condolence was given to him even by Rashtriya Sant Acharya Shri Vidyasagar ji, a surprise, as it was a very rare occasion for such a mighty.

It was only his grooming that has given us courage that my last tears dropped in his final journey. And since then it was our efforts to prove our best, following his dreams and keep his respect. After his departure, we were left with nothing more than his memories on how to lead life in difficulties and maintaining his grace we had fought with the situation.

I had grown as an electrical engineer with PG in marketing management and now heading a senior respectable leadership position in a giant engineering MNC. My younger, Jayant is heading branch of India's biggest private sector bank and Dushyant is a financial brain in corporate to a leading telecom Indian MNC.

It was only her courage, that my mother a true housewife had decided to support the family by working in his place. It was indeed a very difficult task being in a very conservative family background together with following her strong religious rituals (not eating any outside food and drinks, always eating before sunset only, taking only home processed foods..., etc.) She had shown her capabilities following it more strongly, being the best mother to all four of us and then proven her mark and got immense respect for her quality of work and being praised by all seniors and colleagues.

It did not stop there, she had her parallel completed higher education - M.A. (Philosophy), M.Phil. and then Ph.D. (Philosophy) following through the incomplete work of my father in discovering work of old genius in Jainology and ranked in the university.

It was her perseverance and following the impression of my father that we have now become capable to pay our tribute to father's dreams and pay a small contribution to profound researcher Prof Laxmi Chandra Jain.

After my father it was only his counseling, preaching and technical support that had given me confidence, a way to rediscover our self and be with mother to bringing up family, following the ideology practised by my father.

I am lucky to have such strong personalities making impression on my life - my father, my mother and Guru.

I am indeed now grateful to all of them for showing me a way in life and I wish I will come up to their expectations and live up to their names.

I also owe gratitude to Shri Azad Kumar Jain, Sanchi Agencies, Jabalpur for his intervening care.



Yashwant Kumar Jain, Asstt. Vice President
Head -Sales & Marketing - Central Region ABB Limited,
4th & 5th Floor Maruti Heights, Amanaka G.E.Road , Raipur
E-Mail : yk.jain@in.abb.com; yashi140699@rediffmail.com
Mobile : 9425383791, 9926849733, 9755508200

PUBLISHER'S NOTE

It is our privileged pleasure to express our sincere gratitude to Shri Yashvant Kumar Jain, Raipur, who has financed the publication of this volume in sacred and cherished memory of his late father, Shri Vijay Kumar Jain, Sagar.

Professor L.C. Jain operated three projects at the instance of the Indian National Science Academy from 1984 to 1996, on the History of Science in India. We have already published his third project, edited as "Exact Sciences in the Karma Antiquity" in four volumes, with collaboration of Dr. Prabha Jain on "no profit no loss" basis. Now his first project is being published in part as "Mathematical Sciences in the Karma Antiquity" duely compiled by Dr. Prabha Jain, in two volumes out of which this is the first volume, the second one is in press.

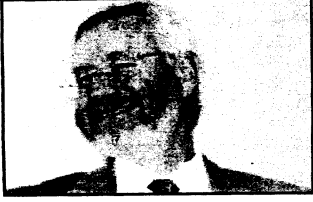
A research publication is a hard nut to crack, as the scholars are only a few, in the beginning, interested in this new branch of study. It is on the Mathematicosymbolic Karma System Theory on which about forty-five large volumes in Prakrit and Sanskrit are available. Due to its treatment through an abstruse unified theory of Karmic interactions between bios and matter, this study has a history of individual scholars, mainly preceptors, from the initiated Mauryan Emperor Chandragupta, through a gap of about two hundred years as said to have been in each of their works. The last of them was Pandit Tōḍaramala of Jaipur (1721-1761?) who had to sacrifice his life, as a victim to a conspiracy against his works. About two centuries after him, professor L.C. Jain took up this study in a modern updated form through INSA projects which we are publishing gradually and slowly.

We acknowledge the keen interest taken by Shri Nirmal Kumar Sethi, Chairman, SBDJ, Mahasabha, New Delhi; Shri Ajit Kumar Singh Kasliwal, the chairman of Kundakund Gyan Pith, Indore; Shri Jinaraj Jain, Paper Udyoga, Delhi and Dr. Anupam Jain who moved us for this arduous task. We should like to express our hearty gratitude to professor Dr. Peter Flügel, University of London, for his fervour and deep concern in our INSA project editions. We are obliged to him for his prologue.

Thanks are due to the Up-to-Date Print Media, Jabalpur, particularly to Shri Rajesh Kumar Jain, the proprietor, for their meticulous care and interest.

It is hoped that the institutions and individual scholars will take the benefit of our unprecedented publications of these INSA projects for probing deep into the still veiled mysteries of the non-violent culture of India.

Varddhman Vikramaditya
(GRKSM)
Sanjay Kumar Jain
(SBSPS)



PROLOGUE

Peter Flügel
(SOAS)

Doctrines of karman occupy the space between natural and moral philosophy. They mediate between determinism and free will. Tensions between the two principal components of karman theory, a deterministic philosophy of nature or karmic causality and intention-based ethics, are in evidence throughout the history of Indian philosophy.¹ In Jaina philosophical texts, expounding the most sophisticated deliberations on karman, the word karman, action, is also used in different ways. Historically, Jaina karman theory seems to have developed from a voluntaristic theory of action, concerned with the relationship between subjective choices and objective consequences of action for both subject and object, to a system theory of the working of karman, conceived from an entirely objective, quasi-scientific, point of view. Here, the word karman designates both an objective process and its result, karmic matter or *karman pudgala*, the seed for renewed action of the same kind. In modern bio-cybernetic terms, the system theory of karman can be interpreted as a boundary maintaining mechanism, governed by an internal control-hierarchy. In the Jaina case, the constitutive goals of the control-hierarchy of the karmic system are not individual preferences, but scripted religio-cultural values. The difference between the voluntaristic and the system theoretical approach is significant. A system does not act. It functions. Ethical considerations, concerning right and wrong conduct, are external to the system theory of karman which describes the inner working of karma in purely theoretical terms.

The earliest surviving Jaina texts on karman, the 'Seniors' among the Śvetāmbara Āgama texts, generally dated fourth or third century B.C.E., are concerned exclusively with ethics, while later Digambara and Śvetāmbara texts of from the beginning of the first millennium C.E. abound with cosmological speculation and technical philosophical and mathematical detail.² The first fully-developed system theories of karman are in evidence in the Digambara "Siddhānta" and in rudimentary form already in late-canonical Śvetāmbara scriptures, such as Samavāya, Viyāhapannatti, and Ārya Śyāma's (c. 79 B.C.E.) Paṇṇavaṇā, whose contents overlap in parts with the much more elaborated Śaṭkhaṇḍāgama of the Digambaras Puṣpadanta and Bhūtabali (c. 100-200 C.E.) as MĀLVANĪYĀ (1971: 223-231) showed.³ The later karma-theoretical works of the Digambaras⁴ and the

1. Wilhelm HALBFASS 1991/1992: 294 summed up the principal theoretical issues in karma theory: 'There are symptomatic "grey zones," questions and ambiguities concerning the scope and limits of karmic causality. It is by no means simply taken for granted that the whole world is just a stage for ethically committed or soteriologically meaningful events, or that natural processes are necessarily governed by or subordinate to retributive causality. The realm of cosmology and even that of biology is not *eo ipso* coextensive with the realm of saṃsāra, that is, of retribution and of possible soteriological progression. There are various ways of specifying and delimiting karma and saṃsāra and of relating karmic causality to other contexts of causality. ... In its various contexts and applications, it has at least three basically different functions and dimensions: karma is (1) a principle of causal explanation (of factual occurrences); (2) a guideline of ethical orientation; (3) the counterpart and stepping-stone of final liberation. These three functions are balanced, reconciled, and integrated in various manners; they do not form a simple and unquestioned unity'.

2. 'There are two schools in particular who are opposing one another on many by-issues: the Āgamikas and the Kāmagrānthikas' (GLASENAPP 1915/1942: xvi).

3. "One thing is certain that the system of exposition through *anuyogadvāras* which we find in several parts of Śaṭkhaṇḍāgama clearly follows the system of exposition demonstrated in *Anuyogadvārasūtra*. Nothing of this sort is found in *Prajñāpanā*. This fact indisputably proves *Prajñāpanā* to be older than *Śaṭkhaṇḍāgama*" (MĀLVANĪYĀ 1971: 231). That Digambara authors as late as NEMICANDRA (10th Century C.E.) frequently cite Śvetāmbara texts has been demonstrated by FUJINAGA 2007, who pointed out that the rejection of the 'authenticity' of the Śvetāmbara canon, whose origins are obscure, seems not in evidence in early Digambara literature.

4. See infra.

Śvetāmbara works Kammaṇayaḍi (Karmaprakṛti) of Śivaśarmasūri, Pañcasamgaha (Pañcasamgraha) of Candrarṣi Mahattara, and the Karmagranthas of the thirteenth century Devendrasūri, all composed in Prakrit, are largely predicated on these earlier scriptures, albeit more systematic with new details added in particular on the mechanisms underlying the guṇaṭṭhāṇas (guṇasthāna) and their mathematical quantification, apparently imported from named, now lost, Puvva (Pūrva) texts such as the Kaṣāyapāhuḍa (Kaṣāyaprābhṛta). Both Śvetāmbara and Digambara texts containing system theoretical approaches of karman claim to be based on the Pūrvas, the reportedly oldest and hence most authentic Jaina texts, or on parts thereof, such as the lost twelfth Aṅga, the Diṭṭhivāya (Dṛṣṭivāda). Because some of the concepts elaborated by the later Karmagranthas are already in evidence in the canonical compilations,⁵ SCHUBRING (1935/2000: 74-6, 187, 322) was tentatively prepared to consider the possibility of the existence of an extinct common source, while ALSDORF (1973: 2) remained "not convinced", because "in contents and style, they are typical products of later scholasticism, far removed from the much simpler language and spirit of the old canonical texts".

How can a theory of action, combining subjective and objective perspectives, moral and causal constraints, and a system theory, privileging the observer's perspective, be integrated without contradiction? A glance at the transition from action-theory to general systems theory in modern sociology illustrates the problem. Originally, action was conceived as a teleological means-ends relationship, oriented toward the realisation of a value chosen by a competent agent. To circumvent the subjectivism underpinning this conception, which does not account for the internalised norms and values orienting individual action, Talcott PARSONS created a model of action as a boundary maintaining system, perceived from an observer's rather than an agent's point of view. He argued that a single action, the elementary unit of an action system, can be analysed as a functional system combining four variables.⁶ That is, every action can be conceived as a system formed by the interplay of the four components or functions: values, norms, aims and resources. The action system, construed in this way, is but a special case of a living system, with norms and values integrated as functional sub-systems, rather than overarching controls. This model and PARSONS' subsequent cybernetic system theory of action opened new ways of thinking about elementary actions and combinations of actions, social systems, without prejudicing the ontological question of what an action IS, and where it begins and ends:

'Just as the units of a mechanical system in the classical sense, particles, can be defined only in terms of their properties, mass, velocity, location in space, direction of motion, etc., so the units of action systems also have certain basic properties without which it is not possible to conceive of the unit as "existing". ...

It should be noted that the sense in which the unit act is here spoken of as an existent entity is not that of concrete spatiality or otherwise separate existence, but of conceivability as a unit in terms of a frame of reference' (PARSONS 1949 I: 43f.).

Critics of cybernetic theories of action, such as HABERMAS, pointed to the problem that the system perspective abstracts from the agent of action altogether:

'In the concept of an action system, actors disappear as acting subjects; they are abstracted into units to which the decisions and thus the effects of action are attributed. In so far as actions are viewed in terms of their internal analytical structure and conceived of as the outcome of a complex joint operation among the specific subsystems, actors are merely circumscribed by the places they can occupy - in each instance under different aspects - in the four subsystems' (HABERMAS 1981/1987: 235).

Because instrumentalist and structural-functionalist perspectives cannot be integrated in a seamless theoretical whole without reducing one to the other, HABERMAS argued, the variation of viewpoints is the only viable solution. His proposition to systematically vary actor and system perspectives was chided as 'eclecticism' by critics.⁷ Yet, it is interesting to note that ancient Jaina philosophers reacted in a similar way to comparable

5. SCHUBRING 1935/2000: 176f., 187f., 320-3.

6. The model is known as the AGIL paradigm. The four functions or sub-systems are: A = Adaptation to the environment (economy), G = Goal attainment (politics), I = Integration (norms), L = Latent pattern maintenance (values).

7. BOURDIEU's 1980/1990 notion of *habitus*, which he somewhere in his later writings compares with karman, also combine two perspectives, but ultimately privileges the system perspective.

theoretical problems. In response to the conundrum of integrating proto-scientific karman-theoretical explanations of the objective functioning of the cosmos (Karman Theory B) with earlier subject- rather than karma-centred soteriologies (Karman Theory A), Jaina philosophers developed a distinct perspectivist epistemology (anekāntavāda) and logic (syādvāda).⁸

The comparison of Jaina karman theories with modern sociological theories of action and social systems sharpens the eye for the idiosyncracies and the blind spots of both approaches. The most striking formal similarity is that both the developed Jaina karman theory and social theory break with ordinary common sense perception by positing the real or theoretical existence of unobservable entities and processes as explanations for the changes in the phenomenal world. In this sense, both models are essentially theoretical. Yet, they are predicated on different ontologies. Social theory and karman theory explain different phenomena, or rather different aspects of the same phenomenon (action or systems of action). Jaina thinkers are not concerned with the opposition of individual and society, nor with social ontology or social theory. They are interested in exploring the opposition of jīva and ajīva, and their modes of interaction,⁹ to build up a model of the shared components and mechanisms determining the fate of the individual soul and the cosmos. The sociological quest of explaining the mechanisms underlying the coordination of actions of more than one individual was never addressed in Jaina literature which generally privileges a subject- or soul-centred perspective. Given Its premises are: Karman accrues exclusively to the individual. It can not be transferred or shared. The individual soul alone is responsible for its own karmic fate. From this perspective, social action appears to be at best a source of problems. Social interaction is fraught with danger for the individual, something to be renounced if at all possible. According to Max WEBER (1922/1972: 11), "action is social insofar as ... it takes account of the behaviour of others and is thereby oriented in its course." Because it is oriented towards the sensitivities of others, Jaina karman theory is also a theory of social action, albeit a one-dimensional one, a negative social theory, exclusively focussing on the avoidance of injury of others and hence of one-self. Jaina karman theory considers the existence and behaviour of others, even of animals and plants, but only indirectly under the aspect of non-violence, not from the point of view of cooperation; despite the often invoked *dictum* of Tattvārthasūtra 5.21, parasparopagraho jīvānām, "souls render service to one another,"¹⁰ which modern commentators interpreted either as an import from Hindu scriptures or as an out of place common sense view of Umāsvāti himself.¹¹

The main difference between the two approaches is one of ontology and of method. Both instrumentalist and functionalist theories of social action, whether conceived as closed or open systems or as autopoietic systems,¹² differ from corresponding Jaina perspectives by not taking refuge to metaphysical assumptions such as the 'law of karmic retribution'. Reciprocity is not treated as a given but as something to be explained.¹³ Jaina doctrines

8. The practical/transcendental opposition is theorised in Jaina philosophical texts in terms of the vyavahāra-naya/nīścaya-naya distinction. ALBERT 1991: 126 argued that all double-truth theories are dogmatic 'immunisation strategies': 'Particular viewpoints are introduced that supposedly allow the separation of some problem areas from others, with the intention of eliminating any possibility of criticism from that direction; in short, one applies *dogmatic shielding principles*'.

9. The difficult theoretical question how a spiritual substance can interact with and be bound by a material substance has been addressed in classical Jaina philosophy in terms of doctrines of psycho-physical parallelism and indirect conditioning. See SS vv. 75, 82, 313, etc., on the difference between substantive cause, *upādāna kāraṇa*, and instrumental cause, *nimitta kāraṇa*.

10. Translation by Nathmal Tatia.

11. The *Prasamarati* replaces it with the Āgamic concept of samyaktva-jñāna-cāritra-vīrya-śikṣā' (OHIRA 1982: 61).

12. LUHMANN 1984/1995.

13. See the attempts WUNDT 1874, NIETZSCHE 1887, MAUSS 1925, MEAD 1934, LÉVI-STRAUSS 1950, PARSONS & SMELSER 1956, and LUHMANN 1984.

simply posit the 'law of karman' (*karmavāda*). That is, they assume that both the intended and the unintended consequences of action automatically rebound on the agent exactly proportionate to the degree of violence committed. Yet, they do (and can) not explain its mysterious inner workings. In both the Śvetāmbara and in the Digambara version of Umāsvāti's classical Tattvārthasūtra and in the later Karmagranthas the existence of living beings, the injuring and the injured, is entirely bracketed. Only the objective effect of an action on the acting karmic system itself is described in terms of an abstract feedback mechanism. The solipsistic imagery of the embodied soul's attraction and bondage of further invisible material particles floating throughout the cosmos due to the karmic activity of the passions (*kaṣāya*)¹⁴ contrasts with the focus of the early Āgamic karma theory on (the avoidance of) violence (*ārambha*) committed by a tangible agent in different situations. Yet, despite the existence of two different if not competing interpretations of karman as such in Jaina literature, the karmic law of reciprocity, interpreted in a moral-ontological sense, is nowhere put forward as a model whose explanatory power is to be tested and refined by a process of falsification. It is taken as a given mechanism *in re* which can be dogmatically projected or inferred but not rationally understood by non-omniscient beings, as GLASENAPP (1915/1942: xix) pointed out:

"The task of the Karmagranthas is to expose completely a dogma but not to prove it. That is why we find in them a full enumeration of the different kinds of the *karman*, of the states of the soul, the degrees of their development, etc., but we do not hear why any of this is thus and not otherwise."

Jaina karman theory was not designed to address social phenomena. What about natural or cosmological phenomena? To what extent is Jain karman theory compatible with the modern natural sciences? Johannes BRONKHORST (2000) produced one of very few studies addressing the question of the relationship between teleological and non-teleological, i.e. naturalistic, karman theoretical explanations of the world. He noticed similar tendencies in the history of modern science and in the history of Indian philosophy to move away from teleological explanations to non-teleological explanations:

'Indian thinkers were confronted with essentially the same problem, and were at times ready to take drastic steps in order to arrive at explanations of processes which at first sight seem to be goal-oriented in non-teleological terms' (ibid., p. 122).

With regard to Jainism, he came to the conclusion that, in contrast to the non-dualistic philosophical systems of Hinduism, arguing that the world at large is determined by the collective actions of all its inhabitants, in Jaina philosophy (and to some extent in Sāṃkhya and Yoga philosophy) 'the working of karma is confined to the soul to which it sticks. Other occurrences in the world have to be explained through other causal processes.' In Jaina karma theory "None of the eight kinds of karma ... is claimed to have an effect on the world at large, and none have an effect on the creation of the world' (ibid., p. 119). In contrast to Śaṅkara, for instance, classical Jaina cosmology distinguishes between purely physical forms of causality, such as attraction and repulsion of atoms, and karmic forms of causality. Yet, because most tangible entities, including the elements, are conceived as living beings, that is, as composites of a soul and karmic matter, from a Jain point of view, the object of modern natural sciences, dead matter, can hardly ever be experienced, except for a short period after an act of killing. The Jain concept of pure matter (*puṇḍrala*) is for all conventional analytical purposes a theoretical concept, a limiting case, as much as the notion of the pure soul. During their creative period, almost two millennia ago, the Jain life-sciences were preoccupied with the classification and analysis of the empirical world of living beings, which is the world of karman, conceived from the perspective of Karman Theory B. Yet, the constitutive Jaina problematic of the fundamental ontological dualism and the resulting question of how spirit and matter can interact through the mysterious workings of the law of karman are not explained by Jain thinkers, but accepted qua belief in the supernatural insight (*kevala jñāna*) of the Jinās.¹⁵

14. 'Because of its passions, the soul attracts and assimilates the material particles of karmic bondage' (TS 8.2, cf. 8.24/8.25). It is not precisely that 'Karmic matter is said to be found "floating free" in every part of occupied space (JAINI 1979: 112), but fine matter capable of being transformed into karmic matter (*karmaṇo yogyān pudgalān*) (personal communication P.S. JAINI, March 2008).

15. See also HALBFASS 1991/1992: 297.

From a modern scientific perspective, predicated as it is on the diremption of nature and culture, both early and classical Jaina models of karman merge natural philosophical and moral considerations in an unclear way. Probably the closest analogy of Jaina karma theory in modern (life) science is the theory of genetic modification. But modern science has still a long way to go until phenomena as subtle as those theorised by the ancient Jaina philosophers can be addressed in a methodical way. Rather than merely associating ancient Jaina conceptions metaphorically with the jargon of modern science, Yuvācārya MAHĀPRAJÑA (1992) and Jethalal ZAVERI and his son Muni MAHENDRA KUMAR (1991, 1992) pointed out at least some tentative ways in which a theory of karma that is compatible with natural scientific methods could be developed experimentally in a creative way.¹⁶

To explain how the act of killing effects the killer, early Jaina texts resorted to popular hydraulic metaphors of invisible moral fluids, conceived as physical substrates, flowing in and out of the embodied souls, as Hermann JACOBI (1914: 468, etc.) and others observed.¹⁷ Two disciples of Dalsukh MĀLVANĪYĀ, Krishna Kumar DIXIT (1973: 6), who commented on Viyāhapannatti (Viy.) 1.8.68 [91b], and Suzuko OHIRA (1994: 5-8), who commented on Āyāra 1.3.2.3 and Sūyagaḍa (Sūy.) 1.1.1.3 and 1.10.21, argued that, historically, the Jaina notion of karman emerged from the concept of revenge, *vera* (Skt. *vaira*, from *vīra*),¹⁸ of which it is but an objectified form.¹⁹ In the earliest strata of the Āyāra and Sūyagaḍa, and in the Viyāhapannatti, the word *vera* seems to be used to designate the 'energy discharged by a victim's soul' in form of a stream, *soya* (Skt. *srota*) (AS 1.3.4.143f.).²⁰ The word *soya* is rarely used in later texts. In Viy. 1.8.2 [91b], the expression *verenaṃa puṭṭhe*,

16. The theory is based on the hypothesis that a 'karmic' purification, a psycho-physical self-transformation, can be achieved via the meditative stimulation of hormones which in turn act on the physiology of the body including the constitutive genes. A somewhat similar scientific approach led to the discovery of the experimentally successful Weber-Fechner-Law, the foundation of Gustav Theodor FECHNER's (1860) theory of psycho-physical parallelism ('In order that the intensity of a sensation may increase in arithmetical progression, the stimulus must increase in geometrical progression'). The approach stimulated Wilhelm WUNDT's (1863, 1874) work, which was also influential on modern social psychology and social behaviourism. The Jainologist Ernst LEUMANN (1889) published an early Yoga inspired scientific paper on 'The activities of the soul and its relationship to blood circulation and breathing' in Wilhelm WUNDT's journal.

17. Another example for the conception of invisible moral fluids in Jaina texts cited by JACOBI 1914: 468 are the unique Jaina concepts of *dharma* and *adharma*, medium of motion and medium of rest: 'For, as their names *dharma* and *adharma* indicate, they seem to have denoted in primitive speculation, those invisible "fluids" which by contact cause sin and merit. The Jains, using for the latter notions the terms *pāpa* and *puṇya*, were free to use the current names of those "fluids" in a new sense not known to other Indian thinkers.' JACOBI's view of early Jaina doctrine as founded on popular 'animism' was reiterated by SCHUBRING 1935/2000: 14f., and others. On 'moral fluids' in contemporary popular Hindu imagination, see for instance MARRIOTT 1991 and DANIELS 1987.

18. See also the explanation of the concept of soul-energy, *vīriya*, in Viy. 1.8.3 [94a].

19. 'Likewise, the primitive populace seem to have believed that any intentional violence committed to a victim is retributed by his *vaira* (revenge, hostility and anger, etc.) which catches hold of the assailant until his due revenge is fulfilled. *Vaira* is the efficacy of the retribution which will hit and bind an assailant without fail, and will not abate until due fruition is achieved. When looked at from the side of an assailant, *vaira* is the sin that he committed by his own self. And sins were considered in the old days as something material which could be cleansed by water or burnt up by fire' (OHIRA 1994: 5f.). See also SCHMITHAUSEN 2000a, 2000b (I am grateful to Prof. W. Bollée for this reference).

20. For salient passages see PISCHEL 1900/1999 § 61: 70. '*Atipāta-srota* probably means that *vaira* is emitted by a victim upon his slaughter in the form of a stream, and *ādāna-srota* probably signifies that the slaughterer receives the emitted *vaira*' (OHIRA 1994: 7). Instead of *soya* (Skt. *srota*), the term *āsava* (Skt. *āsava*) is later used to designate the 'inflow' of karman. Cf. DIXIT 1973: 6.

'being touched by the revenge' of the victim, is used.²¹ In Uttarajjhayāṇa 4.2, and 6.7 and Dasaveyāliya 9.3.7, the word *vera* is employed more in the ordinary sense of hostility and anger, not in the sense of retribution. In the early sections of the same two texts, the word *kamma* (Skt. *karman*) is understood as karmic matter (*kamma puggala*, Skt. *karma pudgala*), rather than as action in general, as in Ācāra I.²² It is worthwhile citing DIXIT's (1973: 5f.) speculative reconstruction of the evolution of the early Jaina karman theory at length:

'The Bhagavāi' treatment of the problems of karma-doctrine has its own value. In this connection a peculiar verbal usage of the text deserves notice. Thus when it intends to say that a person commits a *kriyā* (*kriyām karoti*) it sometimes says that this person is touched by this *kriyā* (*kriyayā sprṣṭaḥ*) [91b]. Certainly, the phrase "touched by *kriyā*" used here is somewhat odd but it seems to have been patterned after a popular phrase of those times. For in the dialogue considering the case of one person killing an animal and another person killing this person himself we are told that the first person is touched by the enmity of the animal (*mṛgavaireṇa sprṣṭaḥ*), the second person touched by the enmity of the first person (*puruṣavaireṇa sprṣṭaḥ*) [91b]. Now the modern anthropologists tell us of the primitive people who believe that when a person commits a crime against another person this crime hounds the first person as long as it does not bring upon him an appropriate disaster. And in all probability such a belief was prevalent among that circle of Indian populace which was accustomed to the phrase "touched by the enmity of so and so". This in turn became the starting point for the Jaina authors developing their doctrine of *karma* which in its essence is but a refined version of the belief in question. The first step in this connection must have been to speak of the technical concept "*kriyā*" instead of the popular concept "*vaira*". Then the idea must have occurred to those Jainas that if *kriyā* is to touch a person it must be something tangible, and thus came into existence the concept of *kriyā* treated as a physical entity. Soon, however, *kriyā* qua a physical entity came to be designated *karma* and one began to speak of a person committing a *karma* (*karma karoti*) or a person being touched by a *karma* (*karma sprṣṭaḥ*). Lastly, the search was made for an active voice usage expressing the same idea as "*karmanā sprṣṭaḥ*", and the phrase "*karma badhnāti*" (binds down a karma) was the outcome.

Here we reach the stage represented by the classical Jaina authors who in this connection exclusively employed the phrase "*karma badhnāti*". But the noteworthy thing is that in *Bhagavatī* the phrase "*karma badhnāti*" is a relatively rare occurrence; for here the moral usual phrase is *karma* (or *kriyām*) *karoti* (or *prakaroti*) [*prakaroti*: 51b, *karoti*: 52a, 52b, 63b, 79a], occasionally *karmanā* (or *kriyayā*) *sprṣṭaḥ* [91b]. All this makes it sufficiently clear that in *Bhagavatī* what we here have before our eyes are the beginnings of the specific Jaina version of the doctrine of *karma* - of which version there was little trace in the oldest texts.'

Suzuko OHIRA (1994: 5-8) subsequently argued that the word *vera* was used in the sense of 'revenge' already in Āyāra 1.3.2.3²³ and Sūyagaḍa (Sūy.) 1.1.1.3 and 1.10.21, but ceased to be used in later texts. She speculated that the *vaira* theory was taught by Pārśva and then transformed by Mahāvīra into the *karmavāda* doctrine evident

21. Mahāvīra replies to Gautamā's question concerning the karmic consequences for a man who beheads another man who is about to kill an animal with an arrow, and who actually kills the animal after his head is severed from his body: *je miyaṃ māreṃ se miya-vereṇaṃ puṭṭhe* / *je purisaṃ māreṃ se purisa-vereṇaṃ puṭṭhe* || (Viy. 1.8.2 [91b]).

22. 'It has already been noted that the word *karma* in the Ācāra I is used in the sense of action in general, and the same generally holds true in the *Sūtrakṛta* I. However, the word *karma* occurring in the *Uttara* ... and *Daśavaikālika* very often ... connotes *karmic* matter. The Jainas thus seem to have understood *karma* in the sense of a concrete material substance, like *rajas* or dust in the late first canonical stage' (OHIRA 1994: 7f.). Cf. Sūyagaḍa 1.2.1.15, 1.2.16, 1.8.7, 1.2.21, Uttarajjhayāṇa 3.11, 4.7, 7.8, 10.3, Dasaveyāliya 3.14, 4.15.21-25, 9.3.15.

23. Cf. Āyāra 1.2.5.5 and JACOBI's 1884: 24 n. 2 remark that *veraṃ vaḍḍhai appaṇo* (translation: 'increases his own unrighteousness') is 'apparently the close of a śloka'.

in AS 1.²⁴ Klaus BRUHN (1993 II: 48) noted, in sum, that the Jaina theory of karman is 'neither a consistent whole nor a concept which tries to explain human behaviour in its entirety'. Further, 'we notice not only high-level syncretism, but also the dynamism of popular beliefs and the parallelism of karma and fate':²⁵ 'in ethics, emphasis is sometimes on the act and sometimes on the attitude; finally, Jainism as a whole, oscillates between ahiṃsā legalism and *kaṣāya* soteriology' (ibid., p. 21). Jaina karman theory, it is argued, assumed its classical form after interpreting karmic matter in terms of the imported atomistic philosophy of the Vaiśeṣika tradition. BRUHN and BUTZENBERGER (1994: iv) summarised the principal features of currently prevalent academic interpretations:

'... If we ignore some very primitive statements we can probably say that there was a clear shift of emphasis from popular ethical thought (offence, suffering = atonement, restoration of the original state of the offender) to abstract soteriology. The latter term stands in this case not for a doctrine of salvation in its usual sense, but for an esoteric current in Jaina dogmatics which is not merely detailed and technical, but likewise in its basic character far removed from the common notions about action, retribution, and redemption. The typical "later karman theory" is of course later than the last period of the canon and also later than the Tattvārthasūtra. ... (iii) ... Presuming quite unspecific assumptions on moral retribution, the development started with explicitly investigating the nature of this retribution, and with considering it to be a stream of subtle matter afflicting the individual. A second major event seems to have been the idea of describing matter according to the latest atomistic theories of natural philosophy, and thus being able to explain the otherwise disturbing circumstance that karmic matter is invisible: except if they constitute a considerably large conglomeration like a pot, etc. (*ghaṭādikārya*), atoms are invisible (*apratyakṣa*).'

The question, how the rebounding effect of an action on the agent can be explained in other than naturalistic moral-ontological terms has hardly been addressed in ancient or modern literature. From the perspective of an individual, a point of departure for a comparative phenomenology of 'guilt', or generalised feeling of 'obligation', may be offered by the Jaina doctrine of *lessā* (Skt. *leśyā*), colouration of the soul, which could be compared, for instance, with HEIDEGGER's (1927/1962) notion of mood (*Grundstimmung*)²⁶.

How can momentary actions have consequences even after long intervening periods of time? Wilhelm HALBFASS (1992: 300ff.) showed that in the Brāhmaṇic tradition the Pūrvamīmāṃsā concept of *apūrvā*, potency, and the Vaiśeṣika concept of the *adrṣṭa*, unseen, were proposed to explain storable causal potencies which attach to the agent of an (sacrificial) action (*kriyā*), and hence account for the efficacy and power of sacrifices. According to the 'magico-ritualistic world-view' of the mīmāṃsā philosopher Kumārila in his Apūrvādhikaraṇa of the Tantravarttika, the agent is *ātman*, the soul of the sacrificer who pays for the sacrifice, and the positive consequences of his sacrificial action - the *apūrvā* or *dharma* - remain in form of personal dispositions (*saṃskāra*). Śaṅkara later

24. 'MV [Mahāvīra] grasped the old theory [of Pārśva] of *vaira* in the context of the then current theory of *karma* and gave it a new logical outlook. ... In other words, MV systematized the old tenet of Pārśva by integrating the current thoughts, and established an independent sect of the Jainas by advocating the Jainas to be *ātmavāda*, *lokavāda*, *karmavāda* and *kriyāvāda* (OHIRA 1994: 6).

25. On elements of determinism in Jaina karma theory, see JAINI 1977.

26. One of the few theoretical reconstructions of the genesis of the 'law of reciprocity' in human societies is Marcel MAUSS' (1925/1988) still much-discussed Essai sur le don, which analyses the perceived causative 'power of the gift', or sacrifice, to oblige the receiver to present a return gift, in terms of a reinterpretation of DURKHEIM's socio-psychological theory of collective emotions and the theories of WUNDT on the interaction of gestures, using the Maori term of *mana* as an example. An elaboration of MAUSS' theory is Jan C. HEESTERMAN's (1984) notion of the transcendence of sacrifice through its interiorisation, or self-obligation, a process which Max WEBER (1922) called ethicisation; which resonates with Uttarajjhayaṇa 25 on 'the sacrifice of sacrifice'. The implications of these approaches are still awaiting further analysis, for instance from the point of view of symbolic interactionism and the theory of emotions.

related the non-karmic *apūrva* theory to karman in his Brahmasūtrabhāṣya. In contrast to the Mīmāṃsa tradition, the Vaiśeṣika concepts work within the framework of a karman theory which accounts for both positive and negative consequences not only of sacrifices but of all actions. The classical Vaiśeṣika author Praśastapāda uses the term *adr̥ṣṭa* to designate *dharma* and *adharma*, merit and demerit. The Jaina perspective rejects the notion of an invisible mystical force (*adr̥ṣṭa*) altogether, and in the second stage of the development of Jaina karman theory instead posits the notion of invisible karmic matter which attaches itself to and binds the soul, producing certain causal conditions.²⁷ This is a purely theoretical conception of karman, far removed from its original meaning of the term. In contrast to the observable, more or less violent, actions of an individual, unseen karmic particles and processes of karmic transformation are mechanisms which can be modelled conceptually and mathematically, but are unrelated to human psychology or ethics. SCHUBRING (1935/2000: 323) commented: "it appears that here the Jains have cultivated psychology without soul."

Jaina Mathematics and Karman Theory

Professor Laxmi Chandra JAIN's pioneering work on the mathematical content of classical Jaina karman theoretical texts deals exclusively with the mathematically refined forms of what he calls the 'karma system theoretical approach' or the biocybernetic system functionalism' of the mathematical passages in the Digambara commentaries on the Śaṭkhaṇḍāgama and the Kaśāyapāhuḍa. What a unit of *karman pudgala* actually represents, how karmic matter (a uniquely Jaina conception) is formed, and how Karman Theory B relates to Karman Theory A does not concern these texts. Hence, the term karman is used in a special sense in the present volume, which applies the language of modern biocybernetic system theory to the karman theory of Nemicaṇḍra:

' "Karma" has been translated as "functional" and it has a mathematical significance of two meanings: as a transformation and as an operator with lapse over time' (L.C. JAIN, *infra*, p. 16/26).²⁸

The author has created a whole range of further new translations to account for the specific technical mathematical use of vocabulary that seems familiar from Jaina philosophical contexts. The author's system theoretical interpretation of the guṇasthāna scheme informs the translations of *guṇasthāna* as 'control station', of *mārgaṇasthāna* as 'way-ward-station', of the *āsrava*, *saṃvara*, *nirjarā* as 'cause-effect' or 'input-output relations' of the karman system. *Jīva* is translated as 'bios' and *dravya* as 'fluent' (elsewhere also: 'organism'). *Kartā* becomes 'functor', *kartr̥iva* 'function', and *niṣeka* 'nissus'. Even a trained Jainologist who is unfamiliar with this terminology, which needs to be learned first, will find it difficult to follow both the original texts and their translation through strings of English neologisms. The advantage of this creative exercise of defamiliarisation is that the conceptual differences between instrumental and functional Jaina karma theories become apparent.

Professor L.C. JAIN began his research on the terminology of the mathematical passages in the Digambara scriptures more than fifty years ago. His inquiries commenced in 1955 in form of discussions with Digambara luminaries such as Kṣullaka Manohara Lāla Varṇī 'Sahajānanda', Ratan Chand Mukhtar and Dr Hiralal Jain, which benefited his first major publication entitled *Tiloyapaṇṇattī kā Gaṇita* (1957), comparing the mathematical karman theory in the *Tiloyapaṇṇattī* with modern system theory and the cybernetics of N. WIENER. This approach informed a lifetime of research in the history of Indian mathematics. The south Indian Digambara Jaina School of Mathematics developed a distinctive mathematical symbolism (*saṃdr̥ṣṭi*) for theorising the classical mathematical Digambara Jaina 'system theory of karman', or *karma praṇālī siddhānta*, an approach which seems to be missing in the Śvetāmbara Karmagranthas. Between 1984-1995 L.C. JAIN worked on three Indian National Science Academy (INSA) funded projects on mathematical passages in Digambara Jain texts. The first project, under Dr A. K. BAG, focussed on the decipherment of the mathematical symbolism in the Labdhisāra

27 GLASENAPP 1942: 3.

28. L.C JAIN 1992, Appendices: 10f. translates karma as 'action' and kriyā as 'activity', cāritra as 'disposition'.

(1984-87). This was followed by two projects on the *Prastāra Ratnāvalī* (1989-91), and Mathematical Contents of the Digambara Jaina Texts of the Karaṇānuyoga Group (1992-95). At this time a long-standing collaboration with the Sanskritist Brahmācārī Dr Prabha JAIN was initiated which informed the seminal work of the author, *The Tao of Jaina Sciences* (1992), which contains his principal analytical ideas, and the publication of the first volume on the Labdhisāra, containing a glossary of technical terms (L.C. JAIN 1994: 17-66) and summary tables of the proposed decoding of the 'Symbolism and List of Working Symbols', especially the geometric symbolism, or *ākāra saṃdṛṣṭi* (ib., pp. 67-98). Between 2003-2005 four volumes were published in the series Exact Sciences in the Karma Antiquity on the Tiloyapaṇṇatī, Trilokasāra, Lokavibhāga, Jambūdīva Paṇṇatti Saṃgaho and the Karaṇānuyoga texts. The explanation of the symbolism of the Labdhisāra is given in the present first volume²⁹ of the planned Labdhisāra study, to be published as part of a five volume series entitled *Mathematical Sciences in the Karma Antiquity* comprising the outcomes of the first INSA project on Nemicandra's work, with a focus on the mathematical content of the Labdhisāra and its application to theory of karma. It is based on the original text edited by Gajādhara Lāla JAIN and Śrī Lāla JAIN in 1919, and the Sanskrit and Hindi paraphrases of the original Prakrit by M. SHASTRI (Bombay 1916) and the Hindi commentary by Pt. R.C. MUKHTAR (Mahavirji 1982).

The symbolism employed in the mathematical passages of the Labdhisāra cannot be understood without a prior study of the Trilokasāra and the Gommaṭasāra, and the Kṣapaṇāsāra. Nemicandra understood these four works as 'summary' explanations of the entire Digambara Siddhānta. That is, the Śaṭkhaṇḍāgama of Puṣpadanta and Bhūtabali, and the Kasāyapāhuḍa of Guṇadharācārya, and their commentaries. He conceived the Gommaṭasāra as a synopsis of the Śaṭkhaṇḍāgama, and the Labdhisāra and Kṣapaṇāsāra as summaries of Guṇadharācārya's Kasāyapāhuḍa, while the Trilokasāra summarises the Tiloyapaṇṇatī (Trilokaprajñapti) of Yativṛṣabhācārya (5th -6th C.). The present first volume, focussing on the Gommaṭasāra Jīvakāṇḍa, and the second volume on the Gommaṭasāra Karmakāṇḍa are conceived as introductions to the study of the mathematical content of Nemicandra's (late 10th - early 11th century) Labdhisāra, Essence of Attainment. This text represents the culmination of the work of Nemicandra, who was given the honorific title Siddhānta Cakravartin, Conqueror of all Scripture, which apparently the Digambara community conveyed only to one who mastered both the Śaṭkhaṇḍāgama and the Kasāyapāhuḍa (Kasāyaprabhṛta), the two main texts of the so-called Digambara Siddhānta. Because both text collections were, however, hardly accessible, both physically and intellectually,³⁰ for many centuries, Nemicandra's Gommaṭasāra, Essence of Excellence, was regarded as the most sacred scripture of the Digambara tradition; until the re-discovery and publication of the only surviving manuscripts of the Śaṭkhaṇḍāgama and the Kasāyapāhuḍa in the 20th century.³¹

Both the Śaṭkhaṇḍāgama and the Kasāyapāhuḍa claim to be based on the lost Pūrvas of the 'original' Jaina canon. Generally, the Kasāyapāhuḍa is considered to be a later text than the 2nd century Śaṭkhaṇḍāgama. But L.C. JAIN considers it to be an earlier composition of the first century C.E.

The present text is a collection of diverse materials for the study of the Labdhisāra. It is divided into three parts, the first two of which are introductory:

(I) An 'Introduction' of seventy one pages on the mathematical content of the Gommaṭasāra and the Labdhisāra texts, based on the commentaries of ..., comprising five sections, an introduction and concluding remarks (see infra), establishes the necessary link between the Gommaṭasāra and the Labdhisāra.

(II) A Reprint of the original text and the 1927 English translation of the Gommaṭasāra Jīvakāṇḍa by Barrister Jugmandar Lal Jaini and Brahmācārī Śītal Prasād Jain, published in 1927, minus the English commentary, but with Hindi translation.

(III) An English rendition of the *Artha Saṃdṛṣṭi*, Gauge (Measure) Symbolism, a chapter in Paṇḍita Ṭoḍaramala's

29. *The Labdhisāra of Nemicandra Siddhānta Cakravartī*. By Laxmi Chandra JAIN. Jabalpur: Shri Brahmi Sundari Prasthashram.

30. In the early twentieth century the texts were only "preserved in one single Ms. Copy which nobody had been allowed to read for centuries" (ALSDORF 1973: 252f.).

31. JAINI 1979: 51, n. 15.

18th century Samyag-Jñāna Candrikā. This two hundred and one page long English text, presented under the title 'Jīvakāṇḍa' as a 'Prelude' to the symbolism of the Labdhisāra (the proliferation of multiple heading in the books can be disorientating), is the main contribution of the present book. It supplements both the 1927 English translation and the Hindi commentary to the latest Gommaṭasāra edition published by Bhāratiya Jñānapīṭha in 1978-1981, which offer no explanation of the symbolism and meaning of the mathematical verses in Nemicaṇḍra's work.

The 'Introduction' comprises seven sections of diverse nature, summarising much needed background information.

(1) 'Introduction'

(2) About the Labdhisāra, its author and date

(3) Summaries of selected verses of the Trilokasāra divergent from the Tiloyapaṇṇatī on the basis of the Sanskrit commentary of Mādhava Candra Traividya (the source for Pt. Ṭoḍaramala's commentary) and the Hindi commentary of Āryikā Viśuddhimati.

(4) Analytical summaries of selected verses from the Gommaṭasāra Jīvakāṇḍa, on the basis of the 11th century auto-commentary Jīva Tattva Pradīpikā of Nemicaṇḍra (Kaṇṇāṭaka Vṛtti and Sanskrit Ṭikā), and the 18th century commentary Samyag-jñāna-candrikā written in ḍhūṇḍhārī by Pt. Ṭoḍaramala (c. 1720-1767).

(5) The 'Exposition (Vṛtti) and Commentary of the Labdhisāra and their Authors' discusses the problem of the authorship of the only Sanskrit commentary of the Labdhisāra, the incomplete anonymous Vṛtti, which is here attributed to the 16th century author Nemicaṇḍra [II], though the 14th century Kanarese author Keśavavarṇī is mentioned as another likely source. The only full commentary on the Labdhisāra is contained in Ṭoḍaramala's Samyag-jñāna-candrikā, which has a separate chapter on the mathematical verses of the Labdhisāra and the Kṣapaṇāsāra, entitled Artha Saṃdr̥ṣṭi Adhikāra, , whose section on the Kṣapaṇāsāra relies on the Kṣapaṇāsāra commentary by Mādhavacandra Traividya of 1203. This chapter is the focus of the present volume.

(6) The section entitled 'Scientific Thought Evident in the Labdhisāra' is based on an article already published by L.C. JAIN (2005b). It comprises the following sub-sections: A. Sets (rāśis), B. Structure (yantra), C. Systems Concepts, D. Symmetry Concepts, E. Sign and Symbol (Saṃdr̥ṣṭi), F. Cybernetic Contents: (a) Algorithm, (b) Self-Regulation and Self-Reproduction, (c) Linguistics, (d) Calculation Mathematics.

(7) 'Concluding Remarks'.

It is difficult to comment on the mathematical or indeed philosophical content of the selected Artha Saṃdr̥ṣṭi passages. The work shows that the classical Digambara doctrines of karman theorised changes and transformations of karman in terms of 'sequences and series, progressions and regressions' of 'successive instants (samaya)', of 'instant sets' (p. 42). For the history of science, the value of decoding their mathematical, scientific and philosophical content is immense. Sensibly, the author of *Mathematical Sciences in the Karma Antiquity* refrains from premature conclusions, and presents the reader with the material without adding his own comments. The stated aims of the text are to furnish 'the basis for a chapter on Indian mathematical systems theory in the larger history of ancient mathematical science' (xiv): Its 'ancient form was called the "Karma Theory" or "Action Theory" or "Functional Theory"' (ib.). It is the invaluable great contribution of the author to have explicated the symbolism and the system theoretical implications of the mathematical passages of Nemicaṇḍra's work together with his assistant Brahmācārīṇī Doctor Prabha JAIN. The works of Professor L.C. JAIN confine themselves to the Digambara Jaina school of mathematics. It is unlikely that work of a similar magnitude and depth will be conducted in the near future on the mathematical contents of the Śvetāmbara Karma granthas which also point to the lost Dr̥ṣṭivāda as their source.

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Thornhaugh Street
Russell Square
London WC1H 0XG
United Kingdom
Tel.: 0044-(0)20-7898 4776
E-mail: jainstudies@soas.ac.uk
Website: <http://www.soas.ac.uk/jainastudies>
E-mail: pf8@soas.ac.uk

Dr Peter Flügel
Chair, Centre of Jaina Studies
Department of the Study of Religions
Faculty of Arts and Humanities
School of Oriental and African Studies
University of London



तिनका जागदी है ~~बहु~~ विपुलमतिकारुत्कष्टद्रव्यहो है ॥ वहरि रूजुमतिका विषय न्यग्र
 क्षेत्र दोयवातीन कोश उत्कष्टसातवा आठ योजन अर विपुलमतिकारुत्कष्टद्रव्यहो है ॥
 वानव योजन उत्कष्ट है ताती सत्ताप योजन मात्र सम चतुरस्र क्षेत्र तो की रचना
 वहरि रूजुमतिका विषय ज्ञान्य काल दोयतीन तव उत्कष्ट सात आठ योजन अर
 विपुलमतिकारुत्कष्टद्रव्यहो है ॥ वहरि रूजुमतिका विषय न्यग्र उत्कष्ट पत्थका असे स्वातवी साग
 असा **पुन** वहरि रूजुमतिका विषय न्यग्र उत्कष्ट पत्थका असे स्वातवी साग
 उत्कष्ट यातै असे स्वात गुणी अर यातै नी असे स्वात गुणी विपुलमतिकारुत्कष्टद्रव्यहो है ॥
विषय ताको उत्कष्ट असे स्वात लोक मात्र जानने ॥ तिन की रचना ॥ मध्यमे द्वित्रिके ग्रह एनि

नाम	द्वय	रुद्र	काल	मान	मन्त्रविंशति
उक्त विपुल मति	स० १०० खरव २०० १०० २००	स० १०० २००	न १००	३०	वहु रिं जाव नि की सी र्खा विषे मति ज्ञानी श्रुत ज्ञानी पत्य के अ सी र्खा तवै जाग मात्र १०० मन्त्र पर्य ज्ञानी
मध्यम विपुल मति	स० १०० २००	स० १०० २००	न १००	३०	संख्यात १०० केवली ज्ञानी संख्या त अ धि क मि द रा शि मात्र १००
अधम विपुल मति	स० १०० २००	स० १०० २००	न १००	३०	वहु रिं अ व धि ज्ञान रा हित त्रि यु व प्र ति ज्ञानी ज्ञी व नि के अ सं र्खा त वै १००
उक्त रुद्र मति	स० १०० २००	स० १०० २००	न १००	३०	अ व धि ज्ञान रा हित त्रि यु व प्र ति ज्ञानी ज्ञी व नि के अ सं र्खा त वै १००
अधम विपुल मति	स० १०० २००	स० १०० २००	न १००	३०	अ व धि ज्ञान रा हित त्रि यु व प्र ति ज्ञानी ज्ञी व नि के अ सं र्खा त वै १००

LIST OF ABBREVIATIONS AND BIBLIOGRAPHY OF SOURCE MATERIAL

1. **ASG**: Artha Saṁdr̥ṣṭi chapter in the Samyakjñāna Candrikā commentary of the Gommaṭasāra [GJK (o), GKK (0), q. v.) by Pundit Ṭoḍaramala of Jaipur. This consists of 308 pages in Dhūṇḍhārī language of Rajsthan, published; c.1919, Calcutta.
2. **ASL**: Artha Saṁdr̥ṣṭi chapter in the SJC of the Labdhisāra [LDS as well as LDS (0), q. v.] by Pundit Ṭoḍaramala of Jaipur. This consists of 207 pages in LDS (0), published in Dhūṇḍhārī, c. 1919. Calcutta ASL (0) is published as included in LDS (0).
3. **DVL** : The Dhavalā commentary by Vīrasenācārya, published in the Ṣaṭkhaṇḍāgama of Puṣpadanta and Bhūtabali Ācāryas, ed. H. L. Jain, et al., vols. 1-16, Amaraoti and Vidisha (1939-1959). This is in Prakrit with Hindi translation. New editions of vol. 1 (1973) and vol. 2 (1976) are available.
4. **GJK** : The Gommaṭasāra Jīvakāṇḍa of Nemicaṇḍra Siddhāntacakraṇvartī, with Kaṇḍāṭakavṛtti (KVR) Sanskrit Ṭikā (STL) or JTP and Hindi translation following SJC, (q. v.), eds. A. N. Upadhya and K. C. Shastri, Bharatiya Jnana Pitha, New Delhi, vols. 1 (1978), 2(1979). English edition : [GJK (E)], edited by J. L. Jaini, et al., Central Jains Publishing House, Ajtashram, Lucknow, 1927 under sacred Books of the Jainas, vol. v. Old edition : [GJK (0)], edited by G. L. Jain and S. L. Jain, includes JTP, and MPB Sanskrit commentaries, alongwith the SJC (q. v.), pp. 1329, 29 × 20 c. m.², including ASG, Calcutta (c. 1919). Manus cripts : [GJK (M)], available at Digambara Jaina Pāśvanātha Baḍā Mandira, Hanumantal, Jabalpur, and at Digambara Jaina Pārśvanātha Khandelwal Bīsā Pantha Mandira, Udaipur, Rajasthan.
5. **GKK** : Gommaṭasāra Karmaḱāṇḍa of Nemichandra Siddhānta cakravartī, with KVR, STL or JTP and Hindi translation following SJC, (q. v.), eds A. N. Upadhya and K. C. Shastri, Bharatiya Jnana Pitha, New-Delhi, vols. 1 (1980), 2(1981).
English Edition : [GKK (E)], ed. Sital Prasad, et al., Ajitashram, Lucknow, vol. 1 (1927, vol. 2 (1937), under the Sacred Books of the Jainas, vols. VI and VII.
Old Edition: [GKK (0)], edited by G. L. Jain and S. L. Jain, uncludes JTP, MPB, Sanskrit commentaries, alongwith the SJC (q. v.), pp. 1200, 29 × 20 c. m.². This includes a chapter on ASG of GKK, Calcutta (c. 1919).
6. **GSS** : Gaṇita Sāra Saṁgraha of Mahāvīrācārya, edited with English translation by M. Rangacarya, Madras, 1972; and edited with Hindi translation by L. C. Jain, Sholapur, 1963.
7. **HHM** : History of Hindu Mathematics, A Source Book, edited by B. B. Datta and A. N. Singh, Part I and Part II, Bombay, 1962.
8. **JDL** : The Jaya Dhavalā commentary of the KPD (q.v.) original in Tāḍapatras, referred in LDS (q.v.).
9. **JDV** : The Jai Dhavalā commentary of the KPD, by Vīrasenācārya and Jinasenācārya, published in the Kaśāya pāhuḍaṇ of Guṇadharācārya. This has also been denoted by KSP, eds. P. C. Siddhānta shastri, and K. C., Siddhanta shastrī, vols. 1-15, Mathura, 1944-1984.

10. **JPS** : The Jambūdīvapaṇṇatī Saṃgaho of Paumaṇaṇḍi, ed. by A. N. Upadhyaya and H. L. Jain. with introduction on Mathematics of the Tiloyapaṇṇatī (TPG, q. v.) by L. C. Jain in Hindi, with Hindi paraphrase by B. C. Siddhanta shastri, Jaina Saṃskṛti Saṃrakṣaka Saṅgha, Sholapur, 1958.
11. **JTP** : The Jiva Tattva Pradīpikā commentary by Muni Nemichandra of GJK and GKK, (q. v.). This is in Sanskrit, following in lesser details than in the KVR (q. v.)
12. **KNS** : The Kṣapaṇāsāra of Nemichandra Siddhāntacakravartī, published in the LDS, (q. v.), alongwith SJC and ASL, (q. v.). An independent work, The Kṣapaṇāsāra, was compiled by Mādhavacandra Traividya on the basis of which Ṭoḍaramala wrote its SJC as well as the portion of Artha Saṃdr̥ṣṭi relevant to it.
13. **KPD** : The Kasāyapāhuḍa Sutta of Guṇadharācārya, with cūrṇi [KPD (c)] of Yatīvr̥ṣabhācārya, ed. H. L. Siddhāntashastri, Calcutta, 1955. This has also been denoted by KPD (s). This contains original verses in Prakṛit with Cūrṇi and Hindi translation.
14. **KSP** : The Kasāyapāhuḍam of Guṇadharācārya with Cūrṇi Sūtras of Yatīvr̥ṣabhācārya, and the Jayadhavalā commentary by Virasenācārya as completed by Jinasenācārya, ed. P. C. Siddhantashastri and K. C. Siddhantashastri, vols. 1-15, Mathura, 1944-1984. Vide JDV also.
15. **KVR** : The Karṇāṭaka Vṛtti by Keśava Varṇī of the GJK, GKK, (q. v.).
16. **LDS** : The Labdhisāra of Nemichandra Siddhāntacakravartī, (Kṣapaṇāsāra garbhita), alongwith STL or Śanskrit Ṭikā of unknown authorship, the authorship by Keśava varṇī being refuted now, and the SJC, ed. P. C. Siddhāntashastri, Agas, Gujrat, 1980. This contains ASL (q. v.).
- Other Editions :
- LDS (0)** : edited with STL, MPB and SJC along with ASL (0), by G. L. Jain and S. L. Jain, Calcutta, c. 1919. This contains ASL (0) in 207 pages.
- LDS (1)** : edited with Sanskrit and Hindi paraphrase by M. L. Shastri, Bombay, 1916.
- LDS (2)** : edited along with the Kṣapaṇāsāra with Siddhānta Bodhinī and Karmakṣapaṇa Bodhinī, Hindi commentaries, by Pundit R. C. Mukhtar, Shantivira Nagar, Shri Mahaviraji, 1982. This contains Prakrit verses and their detailed explanation through excerpts quoted from the JDV in Hindi translation.
- LDS (M J)** : Manuscript available at Digambara Śrī Pārśvanātha Jaina Baḍā Mandira, Hanumantal, Jabalpur. Scribe's name and the date of its writing is not traceable in the manuscript. The GJK (M), however, at Udaipur, mentioned earlier, available at the Pārśvanātha Digambara Jaina Khaṇḍelavāla Bīsā Pantha Mandira, Maṇḍī kā Nāla, Udaipur (Rajasthan) was written in 1778 A. D., after ten years of the probable execution of Pundit Ṭoḍaramala of Jaipur. The name of the scribe was Sāhā Amaradāśa Jñānti Citorā, Pratapgarh, in the reign of Mahārāṇā Bhīma Siṃha at Udaipur. The tail (pūñchaḍī) formation in certain symbols is similar in both the manuscripts. This formation seems so have been abandoned in the printed works.
17. **MBD** : The Mahābandha of Bhagavanta Bhūlabali, ed. S. C. Diwakar and others, Bhāratiya Jñāna Pīṭha, Kashi. vols. 1-7, 1947-1958. This is also called as the Mahādhavalā (MDV) q. v.

- 18. PSK** : The Pañcāstikāya of Kundakundācārya, published in Kundakunda Bharatī, KKB, ed. P. L. Sahityacharya, Phaltan, 1970. This contains 173 verses in Prakrit. These have been translated into Hindi.
- 19 PVS** : The Pravacanasāra of Kunda Kunda Ācārya, published in KKB, (q. v.), This contains 275 verses in Prakrit. These have been translated into Hindi, for detailed dialectical matter, vide PVS, ed. and composed by M. Varṇī, Sahajānanda, as Sapta Daśāṅgī Commentary, Meerut, 1979.
- 20. SJC** : The Samyak Jñānacandrikā commentary by Ṭoḍaramala, of the GJK, GKK, LDS and KNS.
- 21. SKG** : The Ṣaṭkhaṇḍāgama of Śrī Bhagavāna Puṣpadanta and Bhūtabali, ed. Sumati bai Shahā, Phaltan, 1965. This contains Prakrit verses and their Hindi translation. This does not contain either MBD/MDV or DVL.
- 22. SMS** : The Samayasāra of Kundakundācārya, published in KKB, (q. v.). This contains 415 verses in Prakrit, alongwith their Hindi translation. For detailed dialectical matter, vide SMS, ed. and composed by M. Varṇī, Sahajānanda, as Sapta Daśāṅgī Commentary, Meerut, 1977.
- 23. SSD** : The Sarvārthusiddhi of Pūjyapāda, the commentary on the Tattvārtha Sūtra, ed. P. C. Siddhān shastri, Kashi, 1955. An English translation of the text, excluding some portion, is available as "Reality" by S. A. Jain, Calcutta, 1960.
- 24. STL** : The anonymous Sanskrit commentary of the LDS, (q. v.), Formerly Keśava Varṇī was regarded as the commentator ; JSI, p. 412, has however mentioned Muni Nemichandra as the commentator, which seems doubtful, in absence of authority.
- 25. TLS** : The Trilokasāra of Nemichandra Siddhāntacakravartī with commentary of Mādhavacandra Traividya in Sanskrit, and Hindi commentary by Āryikā Viśuddhamatī, ed. R. C. Mukhtar and C. P. Patni, Shri Mahaviraji, 1974.
- TLS (0)** : ed. by M. L. shastri, with commentary of Pundit Ṭoḍaramala, Bombay, 1918.
- TLS (1)** : ed. by M. L. Shastri, with commentary of Mādhavacandra Traividya, in Sanskrit, Bombay, 1917.
- 26. TPT** : The Tiloyapaṇṇattī of Jadivasaha, ed. A. N. Upadhye and H. L. Jain, Part I (1943), Part II (1951), Sholapur.
- TPT (1)** : ed. C. P. Patni, with commentary by Āryikā Viśuddhamatī, Kota, (1984), Part II (1986), Kota.
- 27. TVS** : The Tattvārtha sūtra of Umāsvāmī, published in the SSD, (q. v.).
- 28. TVT** : The Tattvārtha Vṛtti of Śrutasāgara Sūri, Kashi, 1949. Cf. also the Rāja Vārtika, (RVK), Bhāratīya Jñāna Pīṭha, also denominated as the Tattvārtha vārtika of Akalaṅkadeva Ācārya, Kashi, 1953.
- Note** : 1. For source material of the Śvetāmbara Jaina School, Cf. JSBI, pp. 110-114. These start with the karma Prakṛti of Śivaśarma sūri (c. 5th century, A. D.), in broken tradition.

ABBREVIATION

AHRNT:-	Acta Historiae rerum Naturalium nec non Technicarum
AJOS:-	Aligarh Journal of Oriental Studies
ASG:-	Artha Saṃdr̥ṣṭi of the Gommaṭasāra
ASL:-	ArthaSaṃdr̥ṣṭi of the Labdhisāra (1980)
ASL(O):-	Artha Saṃdr̥ṣṭi of the Labdhisāra (old calcutta c. 1919 edition)
BANC:-	Boletin de la Academia Nac. de Ciencias
BB:-	Bibliography of Books
BCMS:-	Bulletin of the Calcutta Mathematical Society
BMB:-	Bulletin of Mathematical Biophysics
BR:-	Bibliography of Source Material
CTN:-	Contribution to the Theory of Transfinite Numbers
DVL	The Dhavalā Commentary of the Ṣaṭkhaṇḍāgama
EW	East and West
GBT	Gaṇita Bhāratī
GJK	Gommaṭasāra Jivakāṇḍa (1978-1979)
GJK (M)	Gommaṭasāra Jivakāṇḍa Manuscripts
GJK (E)	Gommaṭasāra Jivakāṇḍa (English edition, 1927)
GJK (O)	Gommaṭasāra Jivakāṇḍa (old Calcutta edition c. 1919)
GKK	Gommaṭasāra karmakāṇḍa (1980-1981)
GKK (E)	Gommaṭasāra karmakāṇḍa (English edition, 1927, 1937) Parts (i) and (ii)
GKK (O)	Gommaṭasāra karmakāṇḍa (old calcutta edition c. 1919)
GNT	Gaṇita (Lucknow)
GSS	Gaṇita Sāra Saṃgraha of Mahāvīracārya (1963) (1912 English edition)
HTM	Historia Mathematica
HHM	History of Hindu Mathematics (Par I and II; 1962)
ICHS	Proceedings of International Congress of History of Science
ICHSA	International Congress of Human Sciences in Asia and Africa
IHQ	India Historical Quarterly
JAQ	The Jaina Antiquary (Arrah)
JDL	Jaya Dhavalā, original (Tāda Patra)
JGD	Jain Gem Dictionary
JGRI	The Journal of the Ganganatha Jha Research Institute
JGSV	Journal of the Ganganatha Jha Kendriya Sanskrit Vidyapitha
JJL	Jain Journal (Jain Bhawan, Calcutta)
SSHs	Summer School on History of Science (INSA), 1974
STHP	Science and Technology; Humanism and Progress
STL	Sanskrit Commentary (ṭīkā) of the Labdhisāra (anonymous)
SSD	Sarvāthasiddhi
TKR	Tīrthaṅkar (Indore)

TLS	Trilokasāra (1974)
TLS (0)	Trilokasāra (1918)
JLV	Jain Lakṣaṇāvalī (vol. 1, 2, 3; 1972, 1973, 1979)
JPS	Jambūdīvapaṇṇatti Saṃgaho
JSB	Jaina Siddhānta Bhāskara (Arrah)
JSBI	Jaina Sāhitya kā Brahmad Itihāsa, vol. 4, 1968
JSHS	Japanese Studies in the History of Science
JSI	Jaina Sāhitya kā Itihāsa (prelude, and vols. 1, 2; 1962, 1973, 1975)
JSK	Jainendra Siddhānta Kosā (vols. 1, 2, 3, 4; 1970, 1971, 1972, 1973)
JSUD	Journal of the Department of Sanskrit, University of Delhi
JTP	Jīva Tattva Pradīpikā Commentary
KKB	Kundakunda Bhāratī
KNS	Kṣapaṇāsāra
KPD (C)	Kasāya Pāhuḍa Sutta (Cūrṇi)
KPD (S)	Kasāya Pāhuḍa Sutta
KSP	Kasāya Pāhuḍaṃ with the Jaya Dhavalā (JDV) commentary and Cūrṇi Sūtras
KVR	Karṇāṭaka Vṛtti of GJK and GKK (q. v.)
LDS	Labdhisāra (Kṣapaṇāsāra garbhita), (1980)
LDS (0)	Labdhisāra (Kṣapaṇāsāra garbhita), [old Calcutta edition, c. 1919]
LDS (1)	Labdhisāra (Kṣapaṇāsāra garbhita), 1916
LDS (2)	Labdhisāra-Kṣapaṇāsāra (1982)
LDS (MJ)	Labdhisāra Manuscript, Jabalpur
MBD	Mahābandho (also called Mahādhāvalā or MDV)
MDV	Mahadhāvalā
MME	The Mathematics Education
MPB	Manda Prabodhinī Commentary
PGL	Prelude to Gauge Symbolism of the Labdhisāra
PGL (0)	Prelude to Gauge Symbolism of the Labdhisāra (o)
PRL	Śrī Prastāra Ratnāvalī
PSK	Pañcāstikāya
PSM	Pāia Sadda Mahaṇṇava
QSGM	Quellen und Studien zur Geschichte de Mathematik (Springer Verlag)
RJP	Research Journal of Philosophy
RVK	Rājavārtikaṃ
SJC	Samyakjñānacandrikā Commentary
SKG	Ṣaṭkhaṇḍāgama (1965)
SMS	Samayasāra
SOS	Fifty years of Soviet Oriental Studies (Cunieforn Studies)
SPM	Scripta Mathematica
TLS (1)	Trilokasāra (1917)
TPG	Tiloyapaṇṇattī kā Gaṇita
TPJ	Tulsī Prajñā (Ladnum) [Jaina Viśva Bhāratī]
TPT	Tiloyapaṇṇattī (vol. 1, 2; 1943, 1951)
TPT (1)	Tiloyapaṇṇattī (vol. 1, 2; 1984, 1986)
TVS	Tattvārthasūtra
TVT	Tattvārthavṛttī

ROMAN transliteration of DEVANĀGARĪ

VOWELS

Short:	अ	इ	उ	ऋ	ॠ		
	a	i	u	r̥	l̥		
Long:	आ	ई	ऊ	ए	ओ	ऐ	औ
	ā	ī	ū	e	o	ai	au
Anusvāra:	.	=	m̐				
Visarga:	:	=	ḥ				
Non-aspirant	अ	=	s				

CONSONANTS

Classified:	क	ख	ग	घ	ङ				
	k	kh	g	gh	ṅ				
	च	छ	ज	झ	ञ				
	c	ch	j	Jh	ñ				
	ट	ठ	ड	ढ	ण				
	t	ṭh	ḍ	ḍh	ṇ				
	त	थ	द	ध	न				
	t	th	d	dh	n				
	प	फ	ब	भ	म				
	p	ph	b	bh	m				
Unclassified:	य	र	ल	व	श	ष	स	ह	
	y	r	l	v	ś	ṣ	s	h	
Compound:	क्ष	त्र	ज्ञ						
	kṣ	tr	jñ						

मंगलाचरण

अलंघ्यं त्रिगत्सारं यस्यानन्तं चतुष्टयम् । नमस्तस्मै जिनेन्द्राय महावीराय तायिने ॥१॥

संख्याज्ञान प्रदीपेन जैनेन्द्रेण महत्विषा । प्रकाशितं जगत्सर्वं येन तं प्रणमाम्यहम् ॥२॥

-गणितसार संग्रहः

Adoration to Mahāvīra, the Lord of the Jinas, the protector (of the faithful), whose four infinite attributes, worthy to be esteemed in the three worlds, are unsurpassable (in excellence).

- Gaṇita Sāra Saṅgraha

DEDICATED TO

ALL THE FIVE BELOVED-SUPREME OF ALL REGIONS AND ALL TIMES,

THE ARIHANTAS, THE SIDDHAS, THE ĀCĀRYAS, THE UPĀDHYĀYAS

AND THE SĀDHUS

WITH ADORATION TO

THEIR HOLINESS

THE GREAT AND VERSATILE DIGAMBARA JAINA ASCETICS

WHO ARE NINE CRORE AS REDUCED BY THREE IN COUNT,

EXISTENT IN THE TWO AND A HALF ISLANDS,

ALL OF WHOSE BLESSINGS ARE WITH US.

INTRODUCTION

We start with the mathematical treatment of the Karma theory in the Digambara Jaina Prakrit texts and their commentaries. The text, "The Labdhisāra of Nemicandra Siddhānta Cakravartī", is regarded as a companion text, to be taught in continuation of the Gommatasāra [Jivakāṇḍa and Karmakāṇḍa] texts, and before all these, mathematical foundations are required to be laid down through a study of the Trilokasāra. All these texts were compiled as summaries, predominant in mathematical manoeuvre, by Nemicandra Siddhānta Cakravartī in the late tenth century A.D. and early eleventh century A.D. This systemic programming in summary form of aphorisms, from the Śaṭkhaṇḍāgama texts of Puṣpadanta and Bhūtabali preceptors (c. 2nd century A.D.), as well as from the Kasāya Pāhuḍa Sutta of Guṇadhara preceptor, (c. 1st century A.D.), seems to be intended for the purpose of layman studies, for memorizing the essence of the Śaṭkhaṇḍāgama and the Kasāyapāhuḍa Sutta which belong to the Digambara Jaina¹ sect and are regarded as authentic by this community. The scheme of Nemicandra Siddhāntacakravartī appears to be as follows, in the compilation of the summary and essential texts :

THE TILOYAPANNTTĪ OF YATIVRṢABHA } (c. 5th Century A.D.)	THE TRILOKASĀRA [TILOYASĀRA]
THE ŚAṬKHAṆḌĀGAMA OF PUṢPADANTA AND BHŪTABALI } (c. 2nd century A.D.)	THE GOMMAṬA SĀRA [JIVA KĀṆḌA AND KARMA KĀṆḌA]
THE KASĀYA PĀHUḌA SUTTA OF GUṆADHARA } (c. 1st century A.D.)	THE LABDHSĀRA AND THE KṢAPANĀSĀRA

It also appears that Nemicandra Siddhānta Cakravartī took help of the various commentaries of the above original texts, specially the Dhavalā (DVL) commentary of Vīrasenācārya (c. 9th century, A.D.). The Mahābandha (MBD) part of the Śaṭkhaṇḍāgama (SKG), was completed by Bhūtabali ācārya in great details and is known as the Mahā Dhavalā (MDL). Further the Kasāyapāhuḍa Sutta (KPS) was first commented in form of Cūrṇisūtras by Yativrṣabhācārya and later commented upon by Vīrasenācārya, left incomplete by him owing to his death, and completed by his disciple Jinasenācārya, in the form known as the Jaya-Dhavalā (JDL).

The second press publication² of the manuscript form of the Labdhisāra (LDS) as well as its two commentaries, known as the Jīvatattva Pradīpikā (JTP) by Keśavavarṇī³ in Sanskrit, and the Samyak

1. For a brief introduction to the life and works of some preceptors of this school, cf. Jain, L.C., (1985, B B). Upto a few years earlier, Dravyasaṃgraha text was also regarded to have been compiled by Nemicandra Siddhānta Cakravartī but now this issue has been controversial and the work is said to have been compiled by same Nemicandra Siddhānta deva who may be some other person.

2. The work was edited by Gajādhara Lāla Jaina and Śrī Lāla Jaina. The first publication was an abridged commentary in Hindi, in 1916. Cf. LDS (1)

3. C. 1359 A.D.

jñānacandrikā by Ṭoḍaramala¹ in Dhūmḍhārī (a dialect of Hindi in Rajsthan), appears to be round about 1919 by the Gandhi Hari Bhai Devakarana Jaina Granthamala of Bharatiya Jaina Siddhanta Prakashini Samsthā, Calcutta. This contained the Artha Saṁdr̥ṣṭi chapters on the Gommaṭasāra and the LDS (ASG and ASL), an original contribution of Ṭoḍaramala to the exposition of the manoeuvre of the mathematical symbolism, used in the earlier commentary of the text. The Kṣapaṇāsāra, however, had the commentary by Ṭoḍaramala alone, who is said to have taken help of the partial text (commentary) by Mādhavacandra Traividya.²

This work on the Labdhisāra of Nemicandra Siddhānta Cakravartī is intended to furnish the basis for a chapter on Indian mathematical systems theory in a larger history of ancient mathematical science.

It will be too premature to attempt to arrive at general historical conclusions, however, this introduction provides with necessary background of the Indian mathematical system theory whose ancient form in India was called the "Karma Theory" or "Action Theory" or "Functional Theory".

It has been aimed to reach completeness so far as the text and its relevant texts are concerned in the Digambara Jaina School of Mathematics, because the "Karma theory" has been dealt with Saṁdr̥ṣṭi in this school through mathematical symbolism, called the Artha, Aṅka and Ākāra Saṁdr̥ṣṭis which are usually in algebraic, arithmetic and geometric forms. We find the words "Artha Saṁdr̥ṣṭi" (gauge-symbolism)³ ", "Aṅka Saṁdr̥ṣṭi" (numerical-symbolism) and "Ākāra rūpa Saṁdr̥ṣṭi" (geometric- form of symbolism) in the introduction to the "Artha- Saṁdr̥ṣṭi" chapters by Ṭoḍaramala . The first two terms appear in earlier commentaries of the Gommaṭasāra.

The Karma theory needed a symbolic manipulation which appears to be in full swing in the detailed commentaries of the GJK, GKK and LDS. Those on GJK and GKK were compiled by Keśavavarṇī in Kaṇṇaḍa in the 14th century A.D., probably. These are said to have been based on the Vīramārtaṇḍī commentary of the GJK, GKK compiled in Kaṇṇaḍa by Cāmuṇḍarāya, the commander-in-chief and prime minister of the kingdom of the Western Gaṅgas during the reigns at least of Mārasimha II (961-974 A.D.) and Rācamalla IV (975-984 A.D.) He was contemporary of Nemicandra Siddhānta Cakravartī and his great devotee, and builder of fifty seven feet high superb Bāhubali colosus at Śravaṇabelgola. Although we find a few traces of this symbolism in the Tiloyapaṇṇatti and the Dhavalā commentary, yet the real strength of symbolic display records have not been traced so far, earlier than the Kaṇṇāṭavṛtti of Keśavavarṇī.

Apart from the mathematical and symbolic manoeuvre of the karma theory in the Digambara Jaina School, specially in the commentaries of the GJK, GKK and LDS, there appears to be a profound attempt to develop a new methodology of Scientific inquiry for investigation of inner "mechanisms" of life and the development of complex objects of reality, through a systems-approach as will appear later in the systems-analysis of the Functional (Karma) theory.

The following table gives a rough idea of the chronology of the works relevant to the Karma theory and the Labdhisāra, in the Digambara Jaina School, extending to more than 5 lacs of verses, a few works mentioned below being untraceable at present. One may expect earlier attempts as symbolization of mathematical display in such untraceable works, because it is impossible to believe that the work at symbolization is a single-handed compilation in the commentary of Keśavavarṇī.

1. C. 1761 A.D., at Jaipur.

2. C. 1203 A.D. Cf. LDS, p. 39. Cf. also LDS (o), p. t. foreword.

3. Artha is defined by Ṭoḍaramala as the measure, etc. of arbitrarily chosen fluent (dravya), quarter (kṣetra), time (kāla) and phases (bhāvas). The symbolism for the "artha" or "gauge" is artha-saṁdr̥ṣṭi.

cf. GJK-GKK (o)-ASG., p.1.

PERIOD	CONTRIBUTOR	WORK	REMARKS
C. 1st century A.D.	Guṇaḍharācārya	the Kasāyapāhuḍaṃ	
Note: This is said to have been produced from the third pāhuḍa, 'pejjadosa' of the tenth 'vastu' of the fifth 'pūrva', 'jñāna pravāda' of the fourth aṅga of the canonical scripture, having direct link with the revelation (Āgama).			
C. 2nd century A.D.	Puṣpadantācārya and Bhūtabali ācārya	the Ṣaṭkhaṇḍāgama including the Mahābandha	
Note: This is said to have been produced from twenty-four anuyogadvāras of the fourth 'karma prakṛti' prābhṛta of the fifth vastu, 'cayana labdhi' of the second pūrva, 'agrāyaṇī' of the fourth pūrvagata of twelfth aṅga, 'dṛṣṭivāda' of the canonical scripture, having direct link with the revelation (Āgama). If Kundakundācārya is placed in the end of the first century B.C. and if he is proved to have compiled a commentary of the above texts (first three volumes), well known as Pariyamma (Parikarma) then the above texts and their authors will have to be placed at least two centuries earlier.			
C. 3rd century A.D.	Kundakundācārya	(i) said to have written the 'Parikarma' commentary ¹ on first three parts of the Ṣaṭkhaṇḍāgama in 12000 verses (ii) the Pañcāstikāya (173 verses) (iii) the Samayasāra (415 verses) (iv) the Pravacanasāra (275 verses)	not available now

Note: 1. He is mentioned to have composed or compiled 84 Pāhuḍas. Among various works attributed to him the following works, all in Prakrit are available, except the parikarma (Pariyamma) or the Ṣaṭkhaṇḍāgama Tīkā. They are Mūlācāra, Titthyara-Bhatti, Siddha-Bhatti, Suda-Bhatti, Cāritta-Bhatti, anāgāra-Bhatti, Āyariya-Bhatti, Nivvāṇa-Bhatti, Pañcaparametṭhi-Bhatti, Daṃsaṇa-Pāhuḍa, Cāritta-Pāhuḍa, Sutta-Pāhuḍa, Bodha-Pāhuḍa, Bhāva-Pāhuḍa, Mokka-Pāhuḍa, Liṃga-Pāhuḍa, Sila-Pāhuḍa, Rayasāra, Bārasa-Anuvekkhā, Niyamasāra, Pañcāstikāyasāra, Samayasāra and Pravacanasāra. For details of his life and works cf. Introduction, in Pravacanasāra Ed. for Post Doctoral thesis, by A.N. Upadhye, pub. Shrimad Rajchandra Ashram, Station Agas. Post Boria, Via Anand, 1964, pp.1-126.

2. His other works are the Niyamasāra and the Aṣṭapāhuḍa. All these works are in Prakrit. The work 'Tirukurala' is also ascribed to him by certain writer, which is said to have a great influence on the building of culture in south India. He is also said to have compiled 84 Pāhuḍas out of which only 12 Pāhuḍas are available.

3. Most of the others have placed him in first century B. C., (cf. Pravacanasāra introduction. op. cit., pp.1-126), and this has a great bearing in deciding proper chronology of preceptors in Digambara jaina School.

1. This is known as "pariyamma sutta" according to Indranandi's "the śrutāvatāra". cf. also, Desai, P.B., (1957, B.B.). pp. 152-157. Note that the bimillenary celebrations of Kundakundācārya are being solemnized throughout the world by Digambara jaina community and several recent articles and books have appeared regarding his contributions, specifically, to mathematical material, since 1987.

PERIOD	CONTRIBUTOR	WORK	REMARKS
C. 3rd century A.D.	Umāsvāmī	The Tattvārtha-sūtra grddhapicchācārya in Sanskrit	
C. 473 A.D.- 609 A.D.	Yativṛṣabhācārya	(i) the cūrṇi sūtras on the Kasāyapāhuḍaṁ in 7009 Prakrit verses (ii) the Tiloyapaṇṇattī in 5677 Prakrit verses	
dark period of texts not available ¹	Uccāraṇācārya (possible after Yativṛṣabhācārya)	vṛttī on the Kasāyapāhuḍaṁ (in 12000 verses).	not available
	Śāmakunḍācārya	(i) commentary of the Kasāyapāhuḍaṁ (in 6000 verses) (ii) Prakrit-Sanskrit Kaṇṇaḍa mixed commentary of the Ṣaṭkhaṇḍāgama (in 6000 verses)	not available not available
	Tumbulūrācārya	(i) vyākḥā of the Kasāyapāhuḍaṁ (in 30000 verses) in kaṇṇaḍa, named "the Cūḍāmaṇi" (ii) commentary of the Ṣaṭkhaṇḍāgama in Kaṇṇaḍa (54000 verses), named, "the Cūḍāmaṇi"	not available not available
C. 6th century A.D.	Bappaguru deva ācārya	(i) Commentary of the Kasāyapāhuḍaṁ in Prakrit (30000 verses) (ii) Commentary of Ṣaṭkhaṇḍāgama in Prakrit (38000 verses) ²	not available not available

Note: He is known to have been the disciple of the preceptors Śubhanandi and Ravinandi. He wrote Vyākhyā prajñapti commentary of five parts of Ādi Siddhānta and Kasāyapāhuḍaṁ in 60000 verses, and on sixth part in 5008 verses³

1. cf. KSP, vol (1, intro. p. 9. cf. also. JSBI, vol. 4, pp. 109, 110.

2. cf. JSBI, vol. 4, pp. 109, 110.

3. cf. KSA, vol. 1, p.9, intro.

PERIOD	CONTRIBUTOR	WORK	REMARKS
not known	not known	(i) the Jīvasamāsa (ii) the Cheda sūtra (iii) the Karma pravāda (iv) the Dasa karaṇī saṁgraha	not available
Note: These have been quoted by Virasenācārya in his Dhavalā commentary. He also mentions the "Parikarma" in discussions regarding mathematics.			
C. 5th cen- tury A.D.	Devanandi Pūjyapāda ācārya	(i) the Tattvārtha vṛtti (Sarvārtha siddhi), commentary of the Tattvārtha sūtra (ii) the Sārasaṁgraha (iii) the Jainendra vyākaraṇa	not available
C. 5th-6th century A.D.	Samantabhadra ācārya ¹	(i) the Āpta mīmāṃsā in Sanskrit (114 verses) (ii) the Yuktyanuśāsana in Sanskrit (64 verses)	
Note:		The author is said to have compiled (i) the Jīva siddhi (ii) the Tattvānuśāsana (iii) the Prakrit vyākaraṇa (iv) the Pramāṇa padārtha (v) the Karmaṇābhṛta ṭīkā and (vi) the Gandhahastimahābhāṣya which are not available now.	not available
C. 6th century A.D.	Siddhasena ācārya	the Sammai suttaṁ in Prakrit 70 verses	
C. 8th century A.D.	Pātrakeśarī ācārya	the Trilak ṣaṇa kadarthana	not available
C. 8th century A.D.	Akalaṅka deva ācārya	(i) the Laghīyastraya along with svopajña vṛtti (ii) the Nyāyaviniścaya along with vṛtti (iii) the Siddhi viniścaya along with vṛtti (iv) the Pramāṇa saṁgraha along with vṛtti (v) the Tattvārtha vārtika along with bhāṣya (vi) the Aṣṭaṣaṭī devāgama vivṛtti, the commentary on the Āptamīmāṃsā of Samantabhadra ācārya	

1. He is known to have composed commentary on first five parts of the Satkhandagama in Sanskrit 48000 verses.
Cf. KSP, vol. 1, p. 9, intro. This is not available at present.

PERIOD	CONTRIBUTOR	WORK	REMARKS
C. 776 A.D.	Kumāranandi	the Vādanyāya	
C. 700-750 A.D.	Mallavādī	the Ṭippanaka on commentary "the Dharmottara" of the Nyāyabindu of Dharmakīrti of unknown period.	
C. 816 A.D.	Vīrasenācārya	(i) the Dhavalā commentary of the Ṣaṭkhaṇḍāgama in Prakrit (72000 verses) (ii) the Jayadhavalā (incomplete) commentary of the Kasāyapāhuḍaṃ in Prakrit (20000 verses)	
C. 837 A.D.	Jinasenācārya	the Remaining Jayadhavalā commentary of the Kasāyapāhuḍaṃ in Prakrit (40000 verses)	
C. 8th-9th century A.D.	Vidyānanda ācārya	(i) the Āpta parīkṣā alongwith svopajña vṛtti (ii) the Pramāṇa parīkṣā (iii) the Patraparīkṣā (iv) the Satyaśāsana parīkṣā (v) the Aṣṭasahasrī, the commentary on the Āptamīmāṃsā of Samantabhadra ācārya (vi) the Tattvārthaśloka-vārtika, the commentary on the Tattvārthasūtra of Umasvāmī ācārya (vii) the Yuktyanuśāsanālaṅkāra, the commentary on the Yuktyanuśāsa of Samantabhadra ācārya	
C. 8th-9th century A.D.	Vādībha Simha (original name unknown, this was only the designation)	(i) the Syādvāda siddhi (ii) the Navapadārtha niścaya	
C. 9th century A.D.	Devasena ācārya	(i) the Laghunaya cakra in Prakrit (87 verses) (ii) the Ālāpa paddhati in Sanskrit booklet	
C. 10th century A.D.	Amitagati (second) ācārya	the Pañca saṃgraha in Sanskrit (1375 verses)	

Note: One Pañcasamgraha in Prakrit of unknown period and unknown writer is also available (1324 verses).

PERIOD	CONTRIBUTOR	WORK	REMARKS
C. 10th century A.D.	Anantakīrti ācārya	the Vṛhat sarvajña siddhi the Laghu sarvajña siddhi	
C. 11th century A.D.	Māṇikyanandi ācārya	the Parīkṣāmukha	
C. 11th century A.D.	Prabhācandra ācārya	(i) the Prameya kamala mārtaṇḍa, the commentary on the Parīkṣāmukha (ii) the Nyāya kumudacandra (iii) the Tattvārthavṛtti pada vivaraṇa (iv) the Śāktāyana nyāsa (v) the Śabdāmbhoja bhāskara (vi) the Pravacana sāra saroja bhāskara	
C. 11th century A.D.	Nemicandra ācārya	(i) the Gommaṭasāra Jīvakāṇḍa Siddhāntacakravartī in Prakrit (734 verses) (ii) the Gommaṭasāra Karmakāṇḍa in Prakrit (972 verses) (iii) the Labdhisāra (with the Kṣapaṇāsāra) in Prakrit (649 verses) (iv) the Trilokasāra in Prakrit (1018 verses)	
Note: It has recently been questioned whether the Dravyasaṃgraha (Prakrit 58 verses) is also his compilation or that of Nemicandra Siddhāntideva just after the above author.			
C. 11th century A.D.	Cāmuṇḍarāya	the Kaṇṇaḍa vṛtti on the Gommaṭasāra, known as the Vīramārtaṇḍī	not available
C. 12th century A.D.	Anantavīrya	the Prameyaratnamālā	
C. 1203 A.D.	Mādhavacandra Traividya	(i) Commentary on the Trilokasāra (ii) Independent text on the Kṣapaṇāsāra	
C. 13th century A.D.	Śāntiṣeṇa	the Prameya ratnasāra	
C. 11th-12th century A.D. [?]	Vasunandi or	(i) the Āpta mīmāṃsā	
[c. 10th century A.D. (?)]	Jayasena ācārya	(ii) the Devāgama vṛtti	
C. 12th-13th century A.D.	Āśādhara (Paṇḍita)	(i) the Prameya ratnākara	

PERIOD	CONTRIBUTOR	WORK	REMARKS
C. 12th-13th century A.D.	Bhāvasena Traividya	(i) the Viśva tattva prakāśa (ii) the Pramā prameya	
C. 13th century A.D.	Abhayacandra	the Manda Prabodhinī	
C. 13th century A.D.	Saidhāntī	commentary of the Gommaṭasāra	
C. 13th century A.D.	(Laghu) Samantabhadra	the Aṣṭasahasrī ṭippaṇa	
C. 14th century A.D.	Keśavavarṇī	the Karṇāṭa vṛtti of the Gommaṭasāra	
Note: In the LDS (o), the editor note that the Sanskrit commentary of the Labdhisāra was written by Keśavavarṇī. As he is now known to the author of the Kannaḍa commentary of the Gommaṭasāra, question arises that he is the author of the Sanskrit commentary of the Labdhisāra.			
C. 15th century A.D.	Narendrasena	the Pramāṇaprameyakalikā	
C. 15th century A.D.	Dharmabhūṣaṇa	(i) the Nyāyadīpikā (ii) the Pramāṇavistāra	
C. 15th century A.D.	Vimaladāsa	the Saptabhaṅga taraṅgiṇī	
C. 15th century A.D.	Śubhacandra	the Saṁsayā vadana vidāraṇa	
Note: At the Jaina Siddhanta Bhavan, Arrah, certain unpublished works are available.			
	Ajitasena	the Nyāyamaṇidīpikā	
	ŚāntiVarṇī	the Prameya kaṇṭhikā	
	Cārukīrti paṇḍitācārya	The Prameyaratnālankāra	
	Nemicandra	the Pravacana parīkṣā	
	Maṇikanṭha	the Nyāyaratna	
	Śubhaprakāśa	the Nyāyamakaranda vivecana.	
C. 16th century A.D.	Nemicandra (disciple of Jñānabhūṣaṇa)	the Jīvatattva Pradīpikā commentary in Sanskrit, of the Gommaṭasāra, said to be following the Vīramārtanḍī Karṇāṭa vṛtti by Cāmuṇḍarāya	
C. 17th century A.D.	Śrīpāla suta ḍaḍḍha	the Pañcasamgraha in Sanskrit (1243 verses)	
C. 1761 A.D.	Ṭoḍaramala Paṇḍita of Jaipur	(i) the Gommaṭasāra Jīvakāṇḍa Karmakāṇḍa bhāṣā ṭīkā known as the Samyakjñānacandrikā (ii) the Labdhisāra (Kṣapaṇāsāra) bhāṣā ṭīkā known as the Samyakjñānacandrikā (iii) the Trilokasāra bhāṣā ṭīkā	

Note: Both the above contain independent chapter "Artha Saṁdṛṣṭi "

For details of literature on the Karma theory and the nyāya theory of the Śvetāmbara Jaina School, JSBI, JSI, Muni Nathamala (1977), Kāilasha Candra (1966), etc., may be seen.¹

Thus we have seen the development of the karma theory along with the dialectics. There is a trace of the development of symbolism of karma theory before the Karṇāṭa vṛtti of Keśavavarṇī and that can be seen in DVL, vol. 15, as an appendix in Prakrit, in 114 pages, in which the colophon mentions the name of Māghanandi Siddhāntadeva. This appears to be a commentary, named as "the Santa Kamma Pañjiyā". This is on four Anuyogadvāras and is incomplete, because there is mention that it was written on all remaining eighteen Anuyogadvāras.

In the Dhavalā commentary, quotation from several texts have been given, some of them appear to be of mathematical significance. For example, "the Appabahuga Sutta", "the Pariyamma", "the Vaggaṇā Sutta", "the Karaṇānioga Sutta", the Kāla Sutta", and so on. These are not available now. Similarly, the commentary of the Siddhibhūpaddhati is mentioned to have been written by Vīrasenācārya.

Similarly, Nemicandra Siddhānta Cakravartī has mentioned about the Mathematical text, "the Vṛhaddhārā Parikarma" which is not available now.

Independent mathematical texts in the Digambara Jaina School of Mathematics have been traced as follows:

PERIOD	CONTRIBUTOR	WORK	REMARKS
C. 9th century A.D.	Mahāvīracārya	(i) the Gaṇita Sāra Saṁgraha (published) (ii) the Ṣaṭtrimśikā (?) unpublished, Sanskrit, Mathematics, (period?), scribed in Vikrama Samvat 1665, 44 pp., size $11" \times 4\frac{3}{4}$ at Digambara Jaina Temple Jaipur. Anupam Jain ² regards this to have been compiled by Mādhavacandra Traividya in form of the Ṣaṭtrimśatikā and the Chattīsī ṭikā, collected from GSS of Mahāvīracārya. The Chattīsī ṭikā has 18 pp, size $11" \times 4\frac{1}{4}$, scribed in Vikram Samvat 1632, Sanskrit, Mathematics, at Digambara Jaina Temple, Jaipur. Such texts are also available at Digambara Jaina Temple (Balātkāragāṇa), Kārañjā (Akola).	
C. 12th century	Rājāditya	(i) Gaṇita Saṁgraha Available in Kaṇṇaḍa script in Jaina maṭha, Karakala, as well as Siddhanta Vasadi, Mudbidri. (ii) the Vyavahāra gaṇita ³ (iii) the Jaina gaṇita sūtra (iv) the Kṣetra gaṇita	

1. It is important to note that in the tradition of the Śvetāmbara Jaina School, the first work on the Karma theory appears to be by Sivasarma Suri (c. 5th century A.D.). The next preceptors in this school, writing on the Karma theory continue to be from the 10th century A.D. to 17th century A.D. There is a long break as can be perceived from Siva Sarma Sūri.

2.. Cf. GBT. vol.4, Nos 1-2 (1982), 61-71. For details of other available manuscripts relevant to the GSS. Cf. Anupam Jain. etal.. (1985 BB). Mahaviracaya is also believed to have compiled the "Jyotiṣa paṭala". "The Kṣetra Gaṇita", "the Ṣaṭtrimśikā" and "the Chattisapūrva-uttara-pratisaha", apart from the GSS.

3. Cf. ibid.

क्रमांक	ग्रन्थ भंडार का नाम/सूची का विवरण	कृति का शीर्षक	ग्रन्थ/सूची पत्रक्रमांक	बेष्ठन संख्या	पत्र संख्या	अकार	पंक्ति प्रति पत्र	अक्षर प्रति पत्र	लिपि	लेखन कार्य	पूर्ण/अपूर्ण	दशा	विवरण
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Report of Sanskrita manuscripts in southern India by Hultzsche Madras 1985.	-	3009	-	90	-	-	-	तेलगु	-	-	-	-
2	Catalogue of Sanskrita and Prakrit manuscripts in the Library of India Office By A. B. Keith, London, 1935, II, Part-I p. 782.	-	6320	-	76	-	-	-	कन्नड	1800 ई.	-	-	-
3	" " "	-	6321	-	116	-	-	-	कन्नड	1800 ई.	-	-	-
4	Catalogue of Sanskrita manuscripts in India Office Library By Jullius Eggling, London, 1846-V.	-	2880	-	82	-	-	-	नागरी	1557 ई.	-	-	-
5	Catalogue of Sanskrita manuscripts in Mysore and George By Lewis · Rice, Bangalore, 1884.	-	2880	-	-	-	-	-	कन्नड	-	-	-	-
6	A Discriptive of Catalogue Sanskrita manuscripts in Government oriental manuscript Library, Madras XXIV.	-	13408	-	105	-	-	-	संस्कृत	-	अपूर्ण	-	रंगाचार्य ने अंग्रेजी अनुवाद में इन 8 में से 3
7	" "	-	13409	-	34	-	-	-	संस्कृत	-	अपूर्ण	-	प्रतियों
8	" "	-	13410	-	50	-	-	-	कन्नड	-	अपूर्ण	-	का प्रयोग
9	" "	-	13411	-	56	-	-	-	कन्नड	-	अपूर्ण	-	किया था।
10	Classified Catalogue of Sanskrita manuscript in Mysore oriental manuscripts Library By A Mahadeva Shastri, 1904 p. 49.	-	A-58	-	204	-	-	-	कन्नड	-	पूर्ण	-	सटीक
11	A Discriptive Catalogue of Sanskrita and Prakrit manuscripts in the Library of the Bombay branch to Royal asiatic soc. By H. D. Velankar.	-	229	-	59	-	-	-	कन्नड	-	-	-	-
12	Catalogue Raisone of oriental manuscripts in the Library of Colliery Fort St. George in charg board of examiners, ed. by Rece. William Taylor Madras, I ' 1857 p. 211	-	1342	-	60	-	-	-	तेलगु	-	-	-	-

क्रमांक	ग्रन्थ भंडार का नाम/सूची का विवरण	कृति का शीर्षक	ग्रन्थ/सूची पत्रक्रमांक	बेष्ठन संख्या	पत्र संख्या	अकार	पंक्ति प्रति पत्र	अक्षर प्रति पत्र	लिपि	लेखन कार्य	पूर्ण/अपूर्ण	दशा	विवरण
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
13	जैन सिद्धान्त भवन, आरा के संस्कृत एवं प्राकृत ग्रंथों का सूची पत्र द्वारा सुपाश्वर्ष दास गुप्ता १९१६ पृ. ८।	—	180	—	28	—	—	—	कन्नड	—	—	—	—
14	" "	—	181	—	113	—	—	—	"	—	—	—	—
15	कन्नड प्रान्तीय ताडपत्रीय ग्रंथ सूची सं. मं. के भुजबली शास्त्री, काशी १९४८।	गणितसार	327	—	135	—	5	49	"	1449 शक	पूर्ण	—	शुद्ध
16	" "	"	613	—	57	—	7	40	"	—	अपूर्ण	—	सा.शुद्ध
17	" "	"	638	—	29	—	11	80	"	—	पूर्ण	—	शुद्ध सटीक
18	" "	"	677	—	101	—	5	60	"	—	पूर्ण	—	शुद्ध
19	" "	"	873	—	64	—	9	79	"	1596	—	जीर्ण	—
20	दि. जैन सरस्वती भण्डार, श्री महावीर जी (राज.)।	—	—	—	18	14" × 6 1/2	—	—	संस्कृत	—	अपूर्ण	—	—
21	सरस्वती भण्डार, जैन मन्दिर श्रवणबेलगोल (कर्नाटक)	गणित-शास्त्र	300	—	—	—	—	—	कन्नड	—	अपूर्ण	—	—
22	" "	"	301	—	—	—	—	—	—	—	—	—	—
23	" "	गणितसार संग्रह	302	—	—	—	—	—	—	—	—	—	—
24	" "	"	315	—	—	—	—	—	—	—	—	—	—
25	सरस्वती भण्डार, श्रीदिगम्बर जैन मंदिर बलात्कार एवं कारंजा (अकोला)	छत्तीसी गणित	63	13	49	11 3/4" × 5"	11	—	—	—	—	—	—
26	" "	ग्रन्थ सार	64	13	142	5 1/4" × 11"	10	—	—	—	—	—	—
27	" "	संग्रहगणित	65	—	53	11" × 4 3/4"	10	25	—	—	—	—	—
28	" "	ग्रंथषट्त्रिंशति कागणितशास्त्र	66	—	15	11 1/2" × 5"	14	—	—	—	—	—	—
29	" "	—	60	—	20	12" × 5 1/2"	11	—	—	—	—	—	—
30	" "	उत्तर छत्तीसी	61	—	18	10 1/2" × 6"	14	—	—	—	—	—	—
31	" "	टीका षट् त्रिंशतिका	62	—	19	11" × 4 3/4"	13	—	—	—	—	—	—
32	" "	—	701	131	—	—	—	—	—	—	—	—	—
33	" "	—	705	—	—	—	—	—	—	—	—	—	—
34	" "	—	706	—	—	—	—	—	—	—	—	—	—

The following texts of the untraced period, etc. have been mentioned to be available in the same school:*

- (i) the Gaṇitasāra, 5pp., 12" × 8", 17th century by Hemarāja, at Digambara Jaina Shastra bhandara, Patodi (Jaipur).
- (ii) The Gaṇita Saṁgraha, compiled by Yellācārya, in the catalogue (1884) at Mysore and Cambay Library of Sanskrit Texts.
- (iii) The Gaṇitasūtra, at Jaina Siddhanta Bhavana, Arrah.
- (iv) Gaṇitavilāsa of Candram in Kannaḍa in Jaina Siddhānta Maṭha, Mudabidri.
- (v) The Gaṇita sauṣṭhava of Mahimodaya (1630 A.D.)?
- (vi) The Gaṇita śāstra of Śreṣṭhicaṇḍa?

Among the Śvetāmbara Jaina School, mention may be made of the Gaṇitasāra kaumudī of Ṭhakkura feru (1265-1330 A.D.), containing 245 verses in Prakrit, as well as the Iṣṭāṅka pañcaviṁśatikā of Tejasingh (?), containing 26 verses. A Prakrit text, "Aṅgulasaptati" containing 70 verses is also said to have been available, but to what school is not known.

2. THE GOMMAṬASĀRA AND THE LABDHISĀRA TEXTS

The Labdhisāra is a celebrated text in the metaphysico-ontological literature of the Digambara Jaina School. For about a thousand years, this text alongwith its companion texts, the Gommaṭasāra Jīvakāṇḍa and the Gommaṭasāra Karmakāṇḍa, as well as the Kṣapaṇāsāra, succeeded in holding the field of study of the functional-theory (karma-theory). These texts were regarded as the most popular and handy work for memorizing the intricate and deep theory through Prakrit verses, which contained mathematico-philosophical material.¹

It appears that the study of these texts, meant for the laymen,² had in a way eclipsed the study of their source material, the Ṣaṭkhaṇḍāgama and its Dhavalā commentary, the Mahābandha or the Mahādhavalā, and the Kasāyapāhudaṇḍa and its Jayadhavalā commentary in Prakrit language, conventionally meant for voluminous study by the ascetics.³ The voluminous source material of the summary texts has been translated into Hindi during the last fifty years, and this has paved the way for study of mathematical and scientific contents and material embedded in these volumes.⁴ The foundation mathematical material is found in the Tiloyapaṇṇattī of Yativṛṣabha. This is elaborated in the Dhavalā.⁵

*. Cf. ibid.

1. The Digambara Jaina School needed mathematical manoeuvre for the deep and extensive philosophy of its functional-theory (karma theory) which was a set up comparable with the modern system theory. The dialectic method of the Syātvāda system of predication in this school is comparable with that of Hegel who claims that the substance of all previous philosophies is contained, preserved, and absorbed, in his own system. [Vide Stace, W.T., (1955, BB),] pp. 3, 92, 95 and so on. The proper infinities applied in the theory of karma, needed a mathematical logic for avoiding paradoxes and antinomies. Cf. Jain, L.C., (may 1977, BR).

2. Cf. DVL, vol. 1 (1973), editorial, p.1.

3. Cf. DVL, vol. 2 (1976), introduction, pp. 1-4.

4. For a preliminary description of the mathematical contents, etc., of the Ṣaṭkhaṇḍāgama and the Kasāya prābhṛta, as well as their commentaries, vide the Appendix-N-I at the end.

5. Cf. DVL, vol. 3 (1941) and vol. 4 (1942), in particular.

The Labdhisāra, including the Kṣapaṇāsāra, as already seen, is to be studied after a thorough knowledge of the Trilokasāra and the Gommaṭasāra, the former being a text of the Karṇānuyoga group and the latter being the text of the Dravyānuyoga group; all these texts having been written by the same author, Nemicandra Siddhānta Cakravartī (later half of the 10th and first half of the 11th century, A.D.). Hence it is desirable to introduce the author and his earlier texts for an easy access to the description of the Labdhisāra and its mathematical contents.

There is a political history in the background of the writing of texts, specifically the Gommaṭasāra, for Cāmuṇḍarāi, his devotee, also known as Gommaṭrāi,¹ who was the prime minister and commander-in-chief of king Rāyamalla of the Gaṅga dynasty. The Gaṅgas of the west, were among the ancient royal dynasties of India. They were devoted followers of Jainism. The first king of the Gaṅga dynasty was Śivamāra who was helped by a Jaina preceptor, Simhanandi, who belonged to Nandigaṇa. The Repertoire d'epigraphic Jaina² (A.A. Guerinot), inscriptions nos. 213, 214 mention that Śivamāra Koṅguṇivarmā was the disciple of Simhanandi. The inscription³ in Pārśva nātha Basti on Candragiri Hill, Śravaṇa Belgola, Mysore, no. 54, also confirms this. From the Manual of the Salem district, it is found that the race of the Gaṅgas prospered through the sage Simhanandi.⁴

Of this dynasty, we know about King Mārasimha II who won over the Ceras, the Colas, the Paṇḍyas and the Pallavas of the Nolambādi country. He defeated the invincible Vajjala-deva and through his fierce battles of Gonūra and Ucchaṅgī, he became noted all over. After the glorious reign, he abdicated his throne and is said to have given up his life by a three day's fast according to doctrines of Jainism (Sallekhanā), at the feet of his preceptor, the great Ajitasena, at Bankapur, in district Dharwar.⁵

1. Ajjajjasenaṅgaṇasamūha saṁdhāri Ajiyasenaṅgurū/
Bhuvaṇagurū jassa guru so rāo Gommaṭo jayadu//GKK.v.735//
"Gommaṭa suttallihane Gommaṭarāyeṇa jā kayā deṣi/
So rāo cirakālāṁ ṇameṇa ya vīramattaṇḍi//GKK//v.972//

Abhayacandra Saidhāntī, in the colophon of his Manda-Prabodhinī commentry, confirms the same as follows, "Śrīmadapratihata prabhāvasyādvāda śāsana-grhābhyaṅtara-nivāsi-pravādi-madāndha-sindhura-simhāyamāna-Simhanandi munīndrābhīnandita gaṅga vaṁśa lalāmarāja-sarvajñādyaneka guṇa nāmadheya-bhāgadheya-śrīmad Rajamalladeva-mahīballabh-mahā mālyapada virājamāna raṇaraṅga malla saḥāya parākrama-guṇa ratna bhuṣaṇa-samyaktva-ratna nilayādi vividha guṇanāma samāsādita kirtikānta-śrī Cāmuṇḍarāi-bhavya-puṇḍarīka-dravyānuyoga praśnānurūpaṁ mahā karma prakṛti prābhṛta prathama siddhānta jīva-sthānākhyā-prathama khaṇḍārtha saṅghra-gommaṭasāra-nāmadheya pañca saṁgraha sāstra prārabhamāṇaḥ samasta saidhāntika cūḍamaṇiḥ śrīman Nemicandra Saidhāntikacakravartī tad gommaṭasāra prathamāvayavabhūtaṁ jīvakāṇḍaṁ viracayan /" GKK(o) Manda Prabodhinī Tīkā, p. 3.

2. Publications de l' E'cole Francaise d'Ex'tre'me Orient, vol. X, Paris, 1908.

3. This was compiled by Lewis Rice, p. 52, [Mysore and Coorg]: Inscriptions at Śravaṇa Belgola, Bangalore, 1889.

4. Manual of Salem district, by Rev. T. Foulkes, II, 369. From fourth to twelfth century A.D., there have been found various inscriptions which testify to the building of Jaina temples, consecration of Jaina images of worship, hollowing out caves for the Jaina ascetics and grants to the Jaina preceptors by the Gaṅga dynasty rulers.

5. Cf. Epigraphia Carnatika, inscription no. 38, compiled by Lewis Rice, containing the epitaph of this King. According to Epigraphica Indica. vol. V inscription no. 18, the king died in 975 A.D. Cf. also Jaina Śīlālekha saṁgraha, Bombay, 1928, I, no. 38/59.

Cāmuṇḍarāya¹ was the reputed minister of this great king, and the credit of being victorious in the terrible battles goes to the heroic loyalty of Cāmuṇḍarāya. According to his composition, the Cāmuṇḍarāya Purāṇa, there is an opening colophon with an autobiographical note, mentioning that his Lord was the Gṅga-kula-cūḍāmaṇi Jagadekavīra Nalambakulāntaka-deva, and that he was born in the Brahma-Kṣatra varṇśa. There is a colophon at the concluding chapter in which he is noted as disciple of Ajitsena bearing several titles for the victory in pitched wars as well as battles.² After the death of Mārasimha II of the Gaṅga dynasty, Pañcala-deva ascended the throne, succeeded by King Rācamalla or Rājamalla II, and Cāmuṇḍarāya still continued to be the minister.³

The historic place Śravaṇa Belagola [white-lake, in Kaṇṇaḍa] is a village in the Cennarāyapattana taluq of the Hassan district of Mysore. It is surrounded by the Candragiri hill in the North and Vindhyagiri hill in the South, having several temples, images and inscriptions of the Digambara Jaina School.

According to Mrs. Sinclair Stevenson, in her work, "The Heart of Jainism",⁴ as well as Epigraphia Carnatica, vol. II,⁵

The following tradition has been high lighted: According to the tradition, Candragiri derives its name from the Emperor Candragupta who is said to have followed his spritual teacher, Bhadrabāhu, when the latter moved towards the South with his twelve thousand disciples owing to approach of a terrible famine in the Northern India, leaving Patliputra. Bhadrabāhu is said to have left his mortal body on the Candragiri in the presence of the Emperor Candragupta who has been none else than the celebrated Maurya Emperor of the same name according to Digambara Jaina tradition. This fact of political history has been till now a controversial one.

On this historically important Candragiri hill, Cāmuṇḍarāya erected a grand and magnificent temple containing the image of the twenty-second Jaina Tirthaṅkara [fordfounder], Neminātha (contemporary of Lord Kṛṣṇa), the upper story being installed in with the image of twenty-third Tirthaṅkara, Pārśvanātha (about 250 years before Tirthaṅkara Vardhamāna Mahāvīra), by his son.

1. According to the Inscriptions at Śravaṇa Belagola, by Lewis Rice, (op.cit.), p. 22, Cāmuṇḍarāya composed a work called Cāmuṇḍarāya Purāṇa, which contains an epitome of the history of 24 Tirthaṅkaras, ending with the date Śaka 900, or 978 A.D.

2. The titles are, "Samara-dhurandhara, Vīramārtaṇḍa, Raṇaraṅga-simha, Vairikulakāladaṇḍa, Bhuja-vikrama, Chaldaṅka Gaṅga, Samara-Paraśurāma, Pratipakṣa-rākṣasa, Bhaṭa-māri, Guṇavarṇ kāva, Samyaktva-ratnākara, Saucābharāṇa, Satya-yudhiṣṭhara, Subhaṭa-cūḍāmaṇi, Kavijana-śekhara, Mahāmātya and Asahāya-parākrama.

3. Cf. inscription at Bhandari Basti, Lewis Rice, op.cit., p. 103, and cf. also inscription to the left of Dvāra-pālaka gateway, Lewis Rice, ibid., p. 67. Cf. also Vāhubali- Caritra, and commentary of the Gommaṭasāra by Abhayacandra Traividya Cakravartī.

4. Cf. Heart of Jainism, Oxford, 1915. Cf. also Jain, H.L., (1928, BB), pp. (Candragiri Parvata ke Śilālekha). 1 et seq.,

5. Cf. introduction, pp. 1-14, Bangalore, 1889. Cf. also Jain, H.L., (1928, BB), pp. 54-70 (Shravanabelagola ke smaraka), in support of the statement. Vide also Desai P.B., (1957, BB), pp. 201-202.

Further, on Vindhyagiri, Cāmuṇḍarāya erected a world famous colossal image of Bāhubali, known as Gommaṭeśvara, standing $56\frac{1}{2}$ feet high with a width of 13 feet across the hips, and cut out of a solid block of gneiss, apparently wrought in situ, facing the North, the feet stand being carved to represent an open lotus.¹

In the legendary accounts of the Digambara Jaina School, there is mentioned an earlier existence of the image of Gommaṭeśvara on the hill, however, from the inscriptions and the works of Nemicaṇḍra Siddhāntacakravartī testify Cāmuṇḍarāya to be the actual erector of the statue in 978 A.D. to 984 A.D.²

There is evidence that Nemicaṇḍra Siddhāntacakravartī was revered by Cāmuṇḍarāya.³ There is also evidence that the Gommaṭasāra was written by the former at the desire of the latter to know about the contents of the Dhavalā texts.⁴ An old manuscript of the Trilokasāra, a painting also testifies this.⁵

In the Gommaṭasāra, Nemicaṇḍra Siddhānta Cakravartī makes obeisance to the preceptors Abhayanandī, Indranandī, Vīranandī⁶ and Kanakanandī.⁷ In the concluding verse of the Labdhisāra, he declares himself to be the disciple of Vīranandī, Indranandī and Abhayanandī (LDS, v. 652, already quoted).⁸

Nemicaṇḍra Siddhānta cakravartī claimed to have mastery over the Ṣaṭkhaṇḍāgama, Kasāyapāhuḍa, Mahābandha, and the Dhavalā as well as the Jaya dhavalā commentaries. He declares, "Just as an Emperor wins over all the six parts (of Bharata-khaṇḍa) through his cakra, without any intervention, similarly I have gained command over the six parts of (Ṣaṭkhaṇḍāgama texts) through my own cakra (manoeuvre?) through righteousness."⁹ The summaries of these texts in the most compact form, together with the summary of the Tiloyapaṇṇattī, along with the treatment of sequences from Bṛhaddhārā parikarma (operations on detailed sequences), he contributed the following works in Prakrit:

1. Trilokasāra (1014 verses)
2. Gommaṭasāra Jīvakāṇḍa (734 verses)
3. Gommaṭasāra Karmakāṇḍa (972 verses)
4. Labdhisāra (391 verses)
5. Kṣapaṇāsāra (262 verses)

1. Cf. Vincent Smith, A History of Fine Art in India and Ceylon, p. 268. Cf. also Epigraphia Carnatika, vol. II, intr. p. 29. Cf. also "Homage to Shravana Belogola", ed. Saryu Doshi, Marg Publi., Bombay, 1981. For details of various measurements of structures, cf. "Śravaṇa Belgola" by S. Settā, Ruvārī. Dharwad, as well as his thesis "Śravaṇa Belgola Monuments" (1967) from Karnatak University, and second thesis, "Hoyasala Monuments" (1970), Cambridge University. Cf. also "Jaina Art and Architecture", vol. II, New Delhi, 1975. Cf. also Desai, P.B., (1957, BB), p. 103.

2. Cf. GKK, vv. 968-971, vol.2.

3. Cf. Dravya Saṅgraha, v. 58, Vāhubali caritra, v. 61. Cf. also inscription from Epigraphia Carnitica, vol. VIII, Nagar Taluq, no. 46.

4. Cf. commentary of Abhayacandra. Mādhavacandra Traividya has also mentioned in introduction to his commentary of the Trilokasāra about impartation of this knowledge. Cf. TLS(o), p.1.

5. Cāmuṇḍarāya, with several courtiers, hearing the texts of Jainism from the former.

6. Cf. GKK, vv. 436, 785. Cf. also LDS, v. 652.

7. Cf. Shastri, K.C. (1975 BB). vol. 1, pp. 382 et seq. Cf. also colophon of Candraprabhacaritaṃ, vv. 1, 3, 4; cf. also GKK, v. 396.

8. Cf. also L.D.S. v. 653 for further details, of Shastri, K.C. (1975 BB), vol.1, pp. 382-388.

9. "jaha cakkeṇa ya cakki chakkhaṇḍaṃ sāhiyaṃ avigghēṇa /
taha mai cakkeṇa mayā chakkhaṇḍaṃ sāhiyaṃ sammāṃ //397//

A treatise named, "the Karmaprakṛti" is also ascribed to him, which appears to be only a brief extraction from the Gommaṭasāra Karmakāṇḍa. It is also believed by many, including S. C. Ghoshal and J. L. Jaini, that he was the author of the Bṛhad-Dravya-Saṁgraha also, but this has now been proved to be a misunderstanding, as the author appears to be some later Nemicaṇḍra.¹

Nemicaṇḍra Siddhāntacakravartī is the first to have specifically adopted the title, "Siddhānta cakravartī", and his example was followed by several later preceptors. He belonged to the Deśiyagaṇa-Pustaka gaccha, a branch of the Nandi-saṁgha² of the Mūlasaṁgha, Kundakundānvya. Among his preceptors, teachers and elder contemporary saints, as mentioned by Nemicaṇḍra Siddhānta cakravartī, are Indranandi, the author of Jwalāmālīnī Kalpa (c. 939 A.D.)³; Kanakanandi, the author of the Sattva-sthāna (Vistāra-Sattatribhaṅgī) out of which some material was incorporated in the GKK.

Another teacher of Nemicaṇḍra Siddhānta cakravartī was Abhayanandi, the disciple of Vibudha Guṇanandi and preceptor of Vīranandi, the author of Candraprabha-Caritra, and he himself. Another teacher was Ajitasena also, the disciple of Āryasena of the Senagaṇa, who was also the family guru of Cāmuṇḍarāya and of the latter's master, the Gaṅga King Mārasimha II (died in 974 A.D.) as already mentioned. Ajitasena had inspired Cāmuṇḍarāya to erect the world famous colossus of Bāhubali at the Vindhyagiri and presided at its consideration ceremony; assisted probably by Nemicaṇḍra Siddhānta cakravartī who was in all probability a Kannadiga, and probably belonging originally to these parts of the South India. He appears to have resided in the Śravaṇabelgola where he taught, preached and compiled these works. He was really a profound scholar and seems to have commanded great influence and respect from the royal family; as well as Cāmuṇḍarāya. Perhaps under his influence, Cāmuṇḍarāya happened to compile the following works:

1. Cāmuṇḍarāya purāṇa (c. 978 A.D. of completion) in Kannada
2. Vīramārtanḍī, a Kannaḍa commentary on the Gommaṭasāra.
3. Cāritrasāra in Sanskrit.

In the Labdhisāra (the including Kṣapaṇāsāra) there is a colophon (praśasti) at the end of the text in form of the following verses:⁴

"Vīrindaṇandi vaccheṇappasudeṇ Abhayaṇandisisseṇa /
dansāṇa-carittaladdhi susūiyā Nemicaṇḍeṇa //652//
jassa ya pāyapasāeṇaṇanta saṁsāra jalahimuttiṇṇo /
Vīrindaṇadi vaccho ṇamāmi taṁ Abhayaṇandigurum //653//"

Trans: Affectionate (student) of Vīranandi and Indranandi and disciple of Abhayanandi, Nemicaṇḍra the knower of little scripture, has compiled the vision-character attainment (darśana-caritra-labdhi) properly. //652/

Affectionate (student) of Vīranandi and Indranandi, I adore the preceptor Abhayanandi, by the grace of whose feet the infinite (endless) world-ocean could be crossed. //653//

1. Cf. Purātana Jaina Vākya Sūcī, J.K. Mukhtar, Sarsawa, 1950, intro., pp. 92-94.
2. From the inscriptions of Shravanabelagola, spread over more than 500 years, an inscription from Siddhara baṣṭi mentions, "Arhadbali became glorious through his two disciples, "Puṣpadanta and Bhītabali" and he divided the original organization (mūla-saṁgha) into four branches: Sena, Nandi, Deva and Simha. The inscription mention various organizations (Saṁghas), gaṇas, gacchas, etc. as: mūlasaṁgha, nandi saṁgha, namilūra saṁgha, mayūra, saṁgha, kittūra saṁgha, kollatura saṁgha, nandigaṇa, deśigaṇa, dramila (tamila) gaṇa, kanura gaṇa, pustaka or sarasvatī gaccha, and so on.
3. Cf. Jaina Sāhitya aur Itihāsa, N.R. Premi, 2nd edition, Bombay. 1956, p. 271.
4. Cf. The Labdhisāra including the Kṣapaṇāsāra, vv. 652, 653.

The following verse¹ of the Gommaṭasāra makes it clear that the preceptor Abhayanandi taught to him the scriptural knowledge:

"jattha vara Nemicando mahaṇeṇa vinā suṇimmalo jādo /
so Abhayaṇandi nimmala suovahī harau pāvamalaṃ //408//"

trans. : Through the support of which the excellent (disciple) Nemicandra became extremely pure, that pure ocean of scripture propounded by Abhayanandi may remove demeritorious impurity. //408//

The presentation of the state-station (sattva-sthāna) is attributed by the teacher-preceptor Kanakanandi as appears from the following verse of the GKK :²

"vara Indaṇandi guruṇo pāse soṇa sayala siddhantaṃ /
siri Kaṇayaṇandi guruṇā sattatṭhāṇaṃ samuddiṭṭhaṃ //396//"

trans. : Having heard the whole theory (siddhānta) from the teacher-preceptor excellent Indranandi, the teacher-preceptor Kanakanandi gave presentation of the state-station (sattva-sthāna).

Apart from the above, Nemicandra preceptor states³ that he has described in details the state-station (sattva-sthāna). Independent copies of state-station (sattva-sthāna) are available at the Jaina Siddhanta Bhavana, Arrah. The Sanskrit commentary of the verse 396 is as follows:

"sūrimatallikā śrīmad Indranandi bhaṭṭāraka pārsve sakala siddhantaṃ śrutvā śrī Kanakanandi siddhānta cakravartibhiḥ sattva sthānaṃ samyak prarūpitaṃ /"⁴

The period of all the above preceptors is the 11th century of the Vikram era.

Necessity was not felt to obtain manuscripts of the Labdhisāra texts, as the following editions of the work are already available in printed form.

1. LDS (o), published round about 1919 at Calcutta.
2. LDS, published in 1980 at Agas.
3. LDS (1), published in 1916 at Bombay.
4. LDS (2), published in 1982 (Vīra nirvāṇa era 2509) at Śāntivīra nagara, Śrī Mahāvīrajī (Rajsthan).

In so far as the manuscript of the Last commentary by Ṭoḍaramala is concerned, two manuscripts were made available, one at Udaipur, (Rajsthan) and other at Jabalpur (Madhya pradesh). There is no substantial difference in these manuscripts. However some symbols of these differ from those in the printed texts, in so far as the tail (pūñchaḍī) used in the manuscripts have been cut off in the printed texts.⁵

Besides the 57 feet high superb colossus of Bāhubali or the Gommaṭeśvara, Cāmuṇḍarāya built a beautiful temple, known as Cāmuṇḍarāya basati on the Candragiri, enshrining the one cubit high image, made of blue sapphire-(indranīlamanī) of Lord Neminātha, and the Kuge-Brahmadeva-stambha. He also restored as well as built many other temples and monuments, alongwith several deeds of piety. He held Nemicandra Siddhānta cakravartī as his teacher preceptor and studied the principles with him, and in order to satisfy his queries, the former avowedly compiled the Gommaṭasāra.

S. C. Ghoshal, N. R. Premi, J. L. Jaini, Govind Rai, Srikanta Sastri, and H. L. Jain tackled the problem of the meaning of the term "Gommaṭa". They presumed that Gommaṭa was another name of Bāhubali and that it was from the name of this colossus at Śravaṇabelgola (also called Gommaṭapura or

1. Cf. The Gommaṭasāra Karmakāṇḍa, v. 408.

2. Cf. GKK, v. 396.

3. Cf. ibid., v. 395.

4. Cf. LDS. p. 29 of introduction.

5. For further details of the manuscripts vide section 5.

Gommaṭa tīrtha) the term "Gommaṭa" was derived and applied to other persons and things. M. Govind Rai¹ speculated the term "Gommaṭa" as derived from Sanskrit "manmatha" (Kāmadeva or the god of love), and since Bāhubali was the first of the twenty four Kāmadevas of the Jaina tradition, he found a justification. Dr. A. N. Upadhye², however established that the term, "Gommaṭa" was not derived from any Sanskrit or Prakrit root or word, but that it was a local word which is found used, in the Marāṭhī, Konkani, Telugu and the Kannaḍa languages, generally in the sense of good, excellent, pleasing to look at, well-wishes or benefactor, surmising that it might have been the pet name of Cāmuṇḍarāya.

DATE

The date of compilation of the Trilokasāra, may be approximately assessed as Śaka era, 925, in which Nemicandra Siddhānta cakravartī has quoted a verse.³ It appears that the Gommaṭasāra⁴ was compiled after the writing of the Trilokasāra which is at the foundation of the functional-system-theory (karma praṇālī siddhānta). After the preliminaries about the functional theory (karma siddhānta), it was natural to compile the Labdhisāra-Kṣapaṇāsāra.

Nemicandra Siddhānta cakravartī was disciple of Indranandi (939 A.D.), and Kanakanandi was also disciple of the latter as well as preceptor teacher of the former. Hence the former might have begun his career not much before 940 A. D. The probable dates of his other preceptor teachers, namely, Abhayanandi, Vīranandi and Ajitasena may be seen also to hint the same. Further the Gommaṭasāra has been quoted by Amitagati (993-1016 A.D.) in his Sanskrit Pañca-saṁgraha (1016 A.D.). Hence it appears the Nemicandra Siddhānta cakravartī might have lived not much beyond 1000 A.D.

According to inscriptions the activities of Cāmuṇḍarāya are confirmed to 961-984 A.D., his definite date being 978 A.D.

As regards the date of erection⁵ of the Bāhubali colossus, opinions differ, ranging from 907-908 A.D. (S. Śrīkanṭha Shastri, JAQ, vol. 4, pp. 107-114) to 1028 A.D. (H. L. Jain-JSS, I, intro. p. 31). Dr. Sham Shastri (MAR, 1923) held the latter view, S.C. Ghoshal (SBJ, intro.) established 980 A.D., J. L. Jaini (SBJ, V, intro.) found 983 A.D., where Govind Pai and N.C. Shastri established 981 A.D. and some other as 978 A.D. and 984 A.D.

J. P. Jain summarily refutes 1028 A.D. as the date of the erection of the Gommaṭeśvara colossus. He comes to conclude the sojourn of Nemicandra Siddhānta cakravartī and Cāmuṇḍarāya together at Śravaṇabelgola to the period 978 A.D. to 985 A.D. Since Gommaṭasāra is presumed to be written after the erection of the image, the date of compilation of the Gommaṭasāra is conclusively asserted by him to fall between 981 and 984 A.D. The dates of composition of other texts may be earlier and later than this period.

1. Indian Historical Quarterly, IV, 2, pp. 270-86; Jaina Siddhānta Bhāskara, IV. 2, pp. 102-109.

2. Indian Historical Quarterly, XVI, 2, Anekānta, IV, 3, pp. 229-233; IV, 4, pp. 293-299.

3. "paṇachassayavassam paṇamāsajudaṁ gamiya Vīraṇivvuido /

sagarājo to kalkī caduṇavatiya mahiya sagamāsam //850//

Cf. TLS, v. 850. This shows that the Śaka King happened to be 605 years 5 months after the nirvāṇa of Vardhamāna Mahāvīra.

4. The date of writing of the Gommaṭasāra is connected with those of Nemicandra Siddhānta cakravartī Cāmuṇḍarāya and erection of the Bāhubali image of Gommaṭeśvara colossus.

5. "Kalkyabde ṣaṭṣatākhye vinuta vibhava saṁvatsare māsi caitre/
pañcabhyāṁ śuklapakṣe dinamāṇi divase kumbhāgne suyoge//
saubhāghe masta nāmni prakāṭita bhagaṇe suprasastām cakāra/
Śrīmad Cāmuṇḍarājo Velgula nagare Gommaṭeśa pratiṣṭhām//"

Cf. Bāhubali Caritra

3. MATHEMATICAL BACKGROUND OF THE KARMA THEORY IN THE TRILOKASĀRA AS EXPOSED IN THE COMMENTARY OF MĀDHAVA CANDRA TRAIVIDYA ¹

Although the work Trilokasāra appears to have been based on the Tiloyapaṇṇattī, there are some new material as well as slight different way of presentation, for example the treatment of fourteen divergent sequences, mention of Rāhu and Karka, Makara Rāsis, formulae for logarithms and different chapter setting.²

Verses 17, 96 and 311 describe that the gross circumference is obtained on multiplying the diameter by three, and the fine circumference is obtained by multiplying the square of diameter by ten and then finding out the square root of the result. Area is obtained on multiplying the circumference by one fourth of diameter. Volume is obtained by multiplying the area by height.³

Verse 19 describes the formula for finding the volume of a sphere. The half of diameter is cubed. That cube is halved and multiplied by nine to give the volume.⁴

Verse 22 gives the formula for finding out the volume of a cone.⁵ One eleventh part of circumference is multiplied by the square of sixth part of the circumference, giving the śikhāphala.

Verses 114, 200, 746 describe the formula for finding out the common-difference (caya) and number of terms⁶ (pada). The difference of the base (bhūmi) and mouth (mukha) is divided by number of terms (pada) as reduced by unity, getting the common difference (caya). The common difference is multiplied by arbitrarily chosen number of terms and added to the less measure [between base and mouth], giving the number of terms, chosen.

1. There is one more commentary in Dhūmḍhārī written by Toḍaramala. It is based on commentary by Mādhavacandra Traividya. See bibliography. Further a recant commentary in Hindi by Her Holiness Śrī Viśudhamatī jī, (1974, BB). Cf. TLS.

2. Cf., Jain, L.C., (1958, BR; Feb. Mar. 1975, BR; IJHS, 1975 BR; 1976, BR; Jul. 1976, BR; May 1977, BR; 1982, (vol. 1), 1983 (vol.2), BB; 1986, BR). Cf. also Gupta, R.C., (1975, BR). Comparable with this source material are the findings by Lishk, S.S. and Sharma, S.D. mostly incorporated in the approved doctoral thesis on Jaina Astronomy (Post Vedic and Pre. Siddhāntic Astronomy) by Lishk, S.S., at Patiala University, 1978.

3. "vāso tiguṇo parihi vāsacautkhāhādo du khetaphalam /
khetta phalam vehaguṇam khādaphalam hoi savvattha //17// " Cf. TLS, p. 18.

"vikkhambhavaggadaha guṇa karaṇi vaṭṭassa parirayo hodi /
vikkhambha caubbhāge pariraya guṇide have gaṇiyam //96// " Cf. TLS, p. 88.

"Tiguṇi yavā sam parihi dahaguṇa vitthāra vaggamūlam ca/
parihhada vāsa turiyam bādara suhumam ca khetaphalam //311// " Cf. TLS, p. 258.

Mādhava candra Traividya has given the rationale for the use of 3 in finding out the circumference from the diameter, cf. TLS, pp. 19-22, area, and then the volume of a cylinder. He has also given the rationale for the use of $\sqrt{10}$ in finding out the fine circumference from diameter, and ultimately the corresponding area.

4. "vāsaddhaghaṇam daliyam nava guṇiyam golayassa ghaṇa gaṇiyam /
savve simpi ghaṇāṇam phalatti bhāgappiyā sūi //19// "

5. "pariṇāhekkāra samam bhāgam pariṇāhachattā bhāgassa/
vageṇa guṇam ṇiyamā sihāphalam savvakunḍānam //22// " Cf. TLS, p.29.

6. "muhabhūmiṇa visese udayahide bhūmuhādu hāṇicayam/
jogadale padaguṇide phalam ghaṇo vedhaguṇida phalam //114// " Cf. TLS, p. 110.

"ādī anta visese rūṇaddhā hidamhi hāṇicayam/
uvarima jettham samayeṇahiyam hetthima jahaṇam tu //200// " Cf. TLS, p.193

"giri turiyam padhamanti ma kūḍudao ubhayasesa mava haridam/
vegapadeṇa cayo so iṭṭhaguṇo muhajudo iṭṭham //746// " Cf. TLS, p. 585.

Verses 114, 163¹ describe that the sum of number of terms (pada dhana) or area is obtained by multiplying half the sum of base (bhūmi) and mouth (mukha) by number of terms. This area (kṣetra phala) gives the volume when multiplied by the height (vedha). The common difference (caya) is multiplied by number of terms (pada) as reduced by unity. The result when subtracted from the base (bhūmi) gives the mouth (mukha), and when added to mouth gives the base. When half the sum of mouth and base is multiplied by number of terms, one gets the sum of number of terms (pada dhana).

Verse 164 also gives the same sum of number of terms (pada dhana), on first dividing the number of terms as reduced by unity by two, then on multiplying by common difference (uttara), and then on adding the mouth (prabhava) and then multiplying by number of terms.²

Verse 165 describes summation method for a series of holes.

Verse 231 describes a formula for summation of a series which is geometric.³ The common-ratio (guṇakāra) is multiplied mutually as many times as the number of terms, and then the result is reduced by unity. This is divided by the common ratio as reduced by unity and then multiplied by its mouth (mukha). This gives the sum of series which is geometric.

Verse 309 gives the method of finding out the diameter of a ring (valaya), increasing in a geometrical progression. The requisitional number of terms (iṣṭa-gaccha) is reduced by unity and the two raised to the result, and then multiplied by one lac gives the ring-diameter,⁴ on subtracting zero from the product, and gives the linear-diameter (sūci vyāsa) on subtracting three lacs from the product. Verse 370 gives the method for finding out the internal, mediate and external diameters. Verse 314 describes the method for obtaining gross and fine circumference of an arbitrarily chosen island or ocean.

Verse 315 gives the formula for finding gross and fine areas of circles as rings in succession. The sum of the last and initial linear diameters are added and multiplied half the actual diameters (rundra vyāsa). The result is multiplied by three to give gross area; and when multiplied by ten on being squared the square root of the product gives the fine area there of.⁵ Verse 316 gives the number of areal pieces⁶ equivalent to the area of the Jambū island, when the square of internal linear diameter (sūci-vyāsa) of an ocean or sea (samudra), etc., is subtracted from the square of external linear diameter, and the remainder is divided by square of the diameter of Jambū island.

Verse 317 goes the total measure of areal pieces, each equivalent to the area of Jambū island as one piece. The measure of the counting-rods is reduced by unity and multiplied by twelve, and multiplied by the measure of counting-rods, so that round pieces, each equal to Jambū island, are obtained. When the external linear number of counting rods is squared which gives the total number of pieces for the islands and oceans beginning with Jambū island.⁷

1. Verse 114 has already been quoted above.

"Vegapadaṁ cayaguṇidaṁ bhūmimhi muhammi riṇadhaṇaṁ ca kae /
muha bhūmi jogadale pada guṇide pada-dhaṇaṁ hodi //163//"

Cf. TLS, p. 164.

2. "padamegeṇavihīṇaṁ dubhājidaṁ uttaraṇa saṅguṇidaṁ/
pabhavajudaṁ padaguṇidaṁ padagaṇidaṁ taṁ vijānāhi //164//"

Cf. TLS, p. 165.

3. "padamette guṇayāre aṇṇoṇṇaṁ guṇiya rūvaparihīṇe/
rūūṇaguṇe ṇahie muheṇa guṇiyammi guṇagaṇiyaṁ //231//"

Cf. TLS, p. 213.

4. "rūūṇāhiya pada mida duga saṁvagge puṇovi lakkha hodi /
gayaṇatilakkha vihiṇe vāso balayassa sūissa //309//"

Cf. TLS, p. 254. Cf. also ibid, p. 256, verse 310. Cf. also ibid, p. 314, p. 261.

5. "antā isūijogaṁ ruṇdaddha guṇittu duppadaṁ kiccā /
tiguṇaṁ dasakaraṇi guṇaṁ bādara suhumam phalaṁ valaye //315//"

Cf. TLS, p. 262.

6. "bāhira sūivaggaṁ abbhantara sūi vagga parihīṇaṁ /
jambū vāsa vibhatte tattiya mettāni khaṇḍāni //316//"

Cf. ibid., p. 263.

7. "rūūṇa salābārāsa salāgā guṇide dubalaya khaṇḍāni /
bāhira sūisālāgā kadī tadantākhilā khaṇḍā //317//"

Cf. TLS, p. 264.

Verse 318 is also similar. From the external linear diameter, the ring-diameter is subtracted; the remainder is multiplied by four times the ring-diameter. The result is divided by square of one lac, giving the round pieces each equivalent to the round area of the Jambū island.¹

NOTE: The geometry of the Jambū island is not only associated with the circle and a straight line, but also connected with the motion of the Sun and the Moon in the TPT as well as TLS. The motion of these bodies is spiro-elliptic², in fact, representing rather a unified model of the diurnal as well as the annual motion around the Earth.

The chord and arc of a circle were called the *jīvā* and *dhanuṣa* respectively, and the change of the orbit in one revolution was recorded, both for the real and counter bodies, in jump through an average value, whereas the velocity was changing at the every instant of the motion.³ It appears that the epicycle theory got evolved through splitting of this type of complex motion. Further, the pole-set (*dhruva rāṣi*) technique and the limiting-set (*avadhārya-rāṣi*) technique have also some secret behind them. Making various divisions of a circle, through various units of the chord and arc, lead naturally to the conceptual trigonometry and calculus, relevant to motion.⁴

In the verse 327, volume of a conch figure (*śaṅkha*) as a drum (*muraja*) has been obtained, alongwith the rationale given in the commentary. The square of the length (*āyāma*) is subtracted by half of the mouth (*mukha*). The remainder is mixed with the square of the half the mouth diameter (*mukha-vyāsa*). The result is then doubled and multiplied by the height (*vedha*). Thus the volume of a conch is obtained.⁵

Verse 760 states that the square of a chord (*jīvākṛti*) is obtained when the diameter of a circle as reduced by height of a segment (*bāṇa*) is multiplied by four times the height of the segment (*bāṇa*)⁶, and when in the square of chord (*jīvākṛti*) is added the six times the square of height of segment (*bāṇa*), the square of the bow (*dhanuṣa*) is obtained.

Verse 761 states⁷ that when the square of chord (*jīvā*) is added to the square of four times the height of segment (*bāṇa*), and the result is divided by four times the height of the segment (*bāṇa*), the diameter (*viṣkambha*) of the circle is obtained.

-
1. "bāhira sūi valayavvāsūṇā cauguṇiṭṭha vāsa hidā /
igi lakkha vaggabhajidā jambū sama valaya khaṇḍāṇi //318// " Cf. TLS, p. 265.
 2. Vide ibid.
 3. Vide Jain, L.C., The kinematic Motion of the Astral real and Counter Bodies in Trilokasāra. IJHS, 2.1, (1975), 58.74. Cf. also Jain, L.C., On probable spiro-elliptic Motion of the Sun implied in the Tiloyapaṇṇattī, ibid., 13.1 (1978, 42-49).
 4. Vide Shukla, K.S. (1980, 1983, 1984 BR). Vide also TPG.
 5. "āyāma kadī muhadalahiṇā muhavāsa addhavaggajudā /
biguṇā veheṇa hadā saṅkhā vattassa khetta phalaṁ //327//"
Cf. TLS, p. 271. The rationale is of historical importance, given in it from p. 271 to p. 276.
 6. "isuhīṇaṁ vikkhambhaṁ cauguṇidisuṇā hade du jīvā kadī /
bāṇakadīm chahīm guṇide tattha jude dhanukadī hodi //760//"
Cf. TLS, p. 594.
 7. "isuvaggaṁ cauguṇidaṁ jīvāvaggamhi pakkhi vittāṇaṁ /
cau guṇidisuṇā bhajide ṇiyamā vaṭṭassa vikkhambho //761//"
Cf. ibid. p. 596.
-

Verse 762 states that when the square of the fourth part of height of segment (bāṇa) as multiplied by chord is multiplied by 1, and the square root of the result is extracted, it gives the fine area. Further, when the half of sum of chord (jīvā) and height of segment (bāṇa) is multiplied by height of the segment the gross area in relation to the bow area (dhanuṣa kṣetra),¹

In accordance with verse 763, On adding the square of the chord (jīvā) in the twice the height of segment (bāṇa), and on dividing the sum by four times the height of the segment (bāṇa). The diameter of the circle is obtained. Further the square of chord (jīvā) is subtracted from the square of the bow (dhanuṣa), and remainder is divided by 6, and the square root of the result is extracted getting the height of the segment (bāṇa).²

The verse 764 states that when the square of chord (jīvā) is subtracted from the square of the diameter (viṣkambha) of a circle and then square root of the remainder is subtracted from diameter of the circle, then half the remainder so obtained gives the measure of height of segment (bāṇa)³

The verse 765 states that whatever quotient is obtained on dividing square of the bow (dhanuṣa) or arc by twice the height of the segment (bāṇa), from it the height of the segment (bāṇa) is subtracted. The remainder is halved giving the measure of the diameter of the circle. Further the square of arc (dhanuṣa) is added to the square of circle-diameter, and the square root of half the sum is found out, from the square root circle-diameter is subtracting, getting the measure of height of the segment (bāṇa).⁴

Verse 766 states that half of the height of segment (bāṇa) is added to the circle-diameter (vṛtta-viṣkambha), and when the sum is multiplied by four times the height of segment (bāṇa), then the square of the arc (dhanuṣa) is obtained. When the square of height of segment (bāṇa) is multiplied by six, and then the product is subtracted from the square of the arc (dhanuṣa) then square of chord (jīvā) is obtained.⁵

Verse 768 gives a formula for specifically finding out the heights of segment corresponding to the mountains or regions.⁶

The description of divergent dyadic sequences, and other types of sequences, totalling to fourteen are very important from the point of view of their topological properties. They locate finite and infinite types of sets.⁷ These have been detailed in a research paper by Jain.⁸

1. "jīva hadaisupādaṁ jīvaisujudadalaṁ ca patteyaṁ /
dasakaraṇī bāṇaguṇide suhumidaraphalaṁ ca dhaṇukhette //762//"
Cf. ibid., p. 597..
2. "duguṇisu kadijuda jīvā vaggam caubāṇabhājie vattaṁ /
jīvā dhaṇu kadiseso chhabbhatto ṭappadaṁ bāṇaṁ //763//"
Cf. ibid. p. 598. For some recent findings, Cf. Shukla, K.S., (Dec. 1972, pp. 41-50, BR). Cf. also, Gupta, R.C., (Jan. 1979, BR; GB 1985, BR; spring 1986, BR). Cf. also Sarasvati, TA. (Nov. 1961- Aug. 1962, BR). Vide also Sarasvati Amma, TA. (1979, BB) for relevant topics.
3. "jīvā vikkhambhāṇaṁ vaggavisesassa hodi jammūlaṁ /
taṁ vikkhambhā sohaya sesaddha misuṁ vijāṇīhi //764//"
Cf. TLS, p. 599.
4. "du guṇi suhidadhaṇuvaggo bāṇoṇo addhido have bāso /
vāsakadis ahida dhaṇu kadi dalassa mūleṇi vāsamisusesaṁ //765//"
Cf. ibid., p. 600.
5. "isudalajuda vikkhambho cauguṇidisuṇā hade du dhaṇukaraṇī /
bāṇakadiṁ chahiṁ guṇidaṁ tatthṛṇe hodi jivakadī //766//"
Cf. ibid., p. 601. For various formulae, vide kapadia, H.R. (1937, BR).
6. Cf. TLS., v.768, p. 604. The material upto this verse on mensuration is comparable with detailed recent work by Shukla, K.S., (1980, BR).
7. Cf. ibid., vv. 54, et seq., pp. 49, et seq.
8. Cf. Jain, L.C. (1977, BR). This marks a landmark in the history of sequences.

Verses 11 and 12 describes the minimal and maximal types of fluent-measure (dravya-pramāṇa), quarter measure (kṣetra pramāṇa), time-measure (kāla-pramāṇa) and phase measure (bhāva-pramāṇa). The fluent measure is of two types: number-measure (saṁkhyā pramāṇa) and simile-measure (upamā-pramāṇa).¹ The latter is of eight types.

Now these construction sets are described. The number-measure sets may be called ordinals type and the simile measure sets may be called cardinals type. Both of these are used to evaluate the existential sets.²

The following rules are important in so far as logarithmic calculations and square-piling was concerned in the Jaina School of mathematics among the Digambaras. Some of these appear quoted in the Gommatasāra. In the Dhavalā, whatever verses have been quoted, have been given separately as well as described. This is important and needs amendment in the history of logarithms.

Verse 6.1 In the dyadic-square-sequence, the logarithm of logarithm to base two of the square-place is even; half of that square station term is in cube-form; and the logarithm of logarithm to the base two of square place, which are odd, the fourth part of that set is in cube-form. All terms of the cube-sequence when removed from the all-sequence, all terms of non-cube sequence upto omniscience are obtained.³

Verse 73. If a set is produced by spread and distribution process in a sequence, its logarithm of logarithm to base two as well as its logarithm to base two are not found in that sequence. This rule applies to the [last] three sequences,⁴

Verse 74. In the own stations of the [last] three sequences, the logarithm to base two in the square power above the square power, are double, and in the other stations they are triple.⁵

Verse 75. The logarithm to base two are found by mutually multiplying as many two's as are the logarithm of logarithm to base two of the set. Similarly the set is found by mutually multiplying as many two's as is its logarithm to base two.⁶

Verse 76 The logarithm of logarithm to base two is the number as many times as which the process of squaring is required to produce the set. The logarithm of logarithm to base two of a set is called its varga śalākās. The number of times a set is bisected till it is reduced to unity is called its logarithm to base two or arddhacchedas.⁷

1. "paramāṇu sayala davvaṁ egapadeso ya savvamāgāsaṁ /
igisamaya savvakālo suhumanigodesu puṇṇesu //11//
nāṇaṁ jīṇesu ya kamā avara varaṁ majjhimāṁ aṇeyavihaṁ /
davvaṁ duvihaṁ saṁkhā uvamapamā uvama aṭṭha vihaṁ //12//"
2. The number-measure sets are described in verses: 13-51. The simile-measure sets are described in verses: 92-112. For concepts existence and constructibility, cf. Britannica Perspectives. vol. 1, 1968, p. 564.
3. Samakadisala vikadī dalide ghaṇamettha visamage turie /
aghaṇassa du savvaṁ vā vighaṇapadaṁ kevalaṁ thāṇaṁ //61//"
cf. TLS, p. 55. Cf. also Jain, L.C. (1977, BR).
4. "uppajjadi jo rāsī viralaṇadijakkameṇa tassettha /
vagga saladdhacchedā dhārātidaṁ na jāyante //73//"
Cf. TLS, p. 66. Cf. also Jain, L.C. (1977, BR).
5. "vaggāduvarimavagge duguṇā duguṇā havanti addhachidī /
dharātaya saṭṭhāṇe tiguṇā tiguṇā paraṭṭhāṇe //74//"
Cf. TLS, p. 67. Cf. also Jain, L.C. (1977, BR).
6. "vaggasalā rūvahiyaṁ sapade parasama savaggasala mettaṁ /
dugamāhadamaddhachidī tammettaduge guṇe rāsī //75//"
Cf. TLS, p. 67. Cf. also Jain, L.C. (1977 BR).
7. "vaggidavārā vaggasalāgā rāsissa addhachedassa /
addhidavārā vā khalu dalavārā honti addhachidī //76//"
Cf. TLS, p. 69. Cf. also Jain, L.C. (1977, BR).

Verse 80. The sets which are produced at specific stations in a dyadic-square-sequence, their cube-form-sets are produced in the same specific station's in the dyadic-cube-sequence.¹

Verse 105. The logarithm to base two of a multiplier set when added to the logarithm to base two of a multiplicand set, There is produced the logarithm to base two of the acquisition set. The section of excess does not exist.²

Verse 106. Logarithm to base two of a dividend set when reduced by logarithm to base two of the divisor set, then the logarithm to base two of the quotient-set is produced.³

Verse 107. When the spread set and the logarithm to base two of the distribution set are mutually multiplied, then the logarithm to base two of the product of distribution set and spread set is obtained.⁴

Verse 108. When the logarithm to base two of spread set is added to the logarithm of logarithm to base two of distribution set, then logarithm of logarithm to base two of the product of the spread-set and distribution set is obtained.⁵

Verse 109. When the logarithm of logarithm to base two of period-pit (addhā palya) is divided by twice the minimal-peripheral-numerate (jaghanya parita-asamkhyāta), and to the quotient is added the logarithm of logarithm to base two of cube-finger (ghanāṅgula), the logarithm of logarithm to base two of universe-line (jagaśreṇi) is obtained.⁶

Verse 110. The multiplier of an acquisition-set is obtained as a result of mutual multiplication of the two's placed at as many places as is the excess number of logarithm to base two over the distribution set inform of bisections.⁷

Verse 111. The divisor of the acquisition-set is obtained as a result of mutual multiplication of the two's placed in as many places as do the bisections fall short of the logarithm to base two of the arbitrary spread-set.⁸

Regarding astronomical contents of this text, research paper by Jain may be consulted.⁹ Five year yuga calendar¹⁰ could be framed in details through the motion of the Sun and the Moon described in yojana [octomile], [a linear measure], muhūrta [time measure], and gavana khaṇḍas [angular-measure].

1. jatthuddese jāyadi jo jo rāsi virūpa dhārāe /
ghaṇarūve taddese upajjadi tassa tassa ghaṇo //80//
Cf. TLS. p. 72, Cf. also Jain, L.C. (1977, BR).
2. "guṇayāraddhacchedā guṇijjamāṇassa addhachedajudā /
laddhassaddhacchedā ahiyassacchedaṇā ṇatthi //105//
Cf. TLS. p. 101. Cf. also ASG. p.6.
3. "bhajjassaddhacchedā hāraddhaccheda ṇāhim parihiṇā /
addheccheda salāgā laddhassa havanti sabbattha //106 //" Cf. TLS. p. 101.
4. "viralijjamāṇarāsim diṇṇassaddhe chidīhi saṅguṇide /
addhacchedā honti hu sabbathuppaṇṇa rāsissa //107 //" Cf. ibid., p. 102.
5. "viralida rāsicchedā diṇṇaddhaccheda chedasaṁmilidā /
vaggasalāgapamāṇaṁ honti samuppaṇṇarāsissa //108 //" Cf. ibid. p. 102.
6. "duguṇaparitāsamkheṇa vahaṛidaddhārapallavaggasalā /
bidaṅgula vagga salā sahiyā seḍhissa vaggasalā //109// Cf. ibid. p. 104.
7. "viralidarāsīdo puṇa jettiya mettāṇi ahiyarūvāṇi /
tesim aṇṇoṇṇahadī guṇagāro laddharāsissa //110 //" Cf. TLS, p. 106.
on the same, illustration may be seen for exposition.
8. "viralidarāsīdo puṇa jettiyamettāṇi hīnarūvāṇi /
tesim aṇṇoṇṇahadī hāro upptaṇṇarāsissa //111 //" Cf. ibid., p. 107.
9. Jain, L.C. (May 1976 BR). Cf. also Jain, L.C. (1985. BB; 1986, BR).
10. Das, S.R. (1937, BR).

4. MATHEMATICAL BACKGROUND OF THE KARMA THEORY IN THE GOMMAṬASĀRA AS EXPOSED IN THE JTP AND SJC COMMENTARIES

A few research and exposition articles have appeared on the mathematics of the Gommaṭasāra and its commentaries, the JTP and the SJC.¹

It may be noted that out of print edition of the Gommaṭasāra [GJK (o) and GKK (o)] were published in Calcutta round about 1919, alongwith JTP (Sanskrit), MPB and SJC commentaries, by Gandhi Hari Bhai Devakarana, and edited by Pandits G.L. Jain and S.L. Jain. Now we have at our disposal, the Gommaṭasāra in four volumes published by Bhāratiya Jñāna Pīṭha, New Delhi (1978-1981). These contain JTP (Kārṇāṭa vṛtti), JTP (Sanskrit) and a Hindi commentary on the lines of Ṭoḍaramala's SJC without his symbolic Artha Saṁdr̥ṣṭi-Chapters which explain various results and symbolism of various important topics, serving as guide line for research workers. Ṭoḍaramala's Artha Saṁdr̥ṣṭi Chapters of the Gommaṭasāra have been given in English as Prelude to Gauge-Symbolism of the Labdhisāra (PGL) by me, separately in this research project on the Labdhisāra of Nemicandra Siddhānta cakravartī, so that the work Labdhisāra may be understood easily.

Various quoted verses in the Gommaṭasāra commentaries of the GJK and GKK have been separately collected by me as a part of this project, alongwith the verses quoted in the LDS, as well as in the DVL and Jaidhavalā commentaries.

Now we shall sort out the mathematical contents of the GJK and GKK in brief in what follows. We shall follow the GJK (E) and GKK (E) I and II, English editions of the texts, published as the Sacred Books of the Jainas, mentioned in the bibliography of books.

In the Gommaṭasāra at various places combinations have been calculated in a systematic manner. The following verses give a few rules about the calculations:

Verse 34. Censurable talk (vikathā), affections (kaṣāya), senses (indriyas), sleep (nidrā), and attachment (praṇaya) [of 4, 4, 5, 1, and 1 types of elements respectively] are really fifteen sorts of carelessness (pramāda).²

Note: The above five classes or types when subjected to mathematical combinations give us

$4 \times 4 \times 5 \times 1 \times 1 = 80$ different combination of carelessness (pramāda).

Verse 35 The number of combinations (saṁkhyā), spread-distribution or dispersion (prastāra), cyclic change (parivartana), analysis (naṣṭa) and synthesis (samuddiṣṭa) are the five types to be known in the discription of carelessness (pramāda).³

Verse 36 All the elements of the preceding class combine one by one with elements of the succeeding class and by [their] successive multiplication the number [of combinations] (saṁkhyā) is produced.⁴

Note: $4 \times 4 = 16$ and $16 \times 5 = 80$.

Each of the 4 gossips combine with each one of the 4 passions giving $4 \times 4 = 16$ of combinations of 2 elements each. Each of the 16 combine with each of 5 senses to give $16 \times 5 = 80$ combinations, and so on.

1. Cf. Datta B.B. (1935, BR), cf. also Jain L.C. (1981 BR).
2. Vikalā tahā kaṣāyā indriyaṇiddā taheva paṇao ya /
cadu cadu paṇamegegaṁ honti pamādā hu paṇṇarasa //34//
Cf. GJK (E), p. 27. Cf. also GJK, I, pp. 62-63.
3. saṁkhā tahā patthāro pariyatthana nattha taha samuddiṭṭham/
ede pañca payārā pamāda samukkittāṇe ñeyā//35//
Cf. GJK (E), p. 28. Cf. also GJK, I, p. 63.
4. "savvepi puṇṇa bhaṅga uvarima bhaṅgesu ekka mekkesu /
melantitti ya kamaso guṇide uppajjade saṁkhā //36//"
Cf GJK (E), p. 28 Cf. also GJK, I, p. 64.

Verse 37 Distribution is by placing respectively each one of the 4 elements of the first class of pramāda [i.e. gossip. (vikathā)], then covering each one of these with each one of the elements of the succeeding classes.¹

Verse 38. Placing the elements of the first class as many times as there are elements in the second class, in each group on the top, place one by one the element of the second, doing like this for all [classes, till 80 combinations are obtained]²

Note: Let v_1, v_2, v_3, v_4 denote four vikathas,
 k_1, k_2, k_3, k_4 denote four kaṣāyas,
 i_1, i_2, i_3, i_4, i_5 denote five indriyas.

Then 16 combinations of 3 elements each, with i_1 are given by the following

i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1	i_1
k_1	k_1	k_1	k_1	k_2	k_2	k_2	k_2	k_3	k_3	k_3	k_3	k_4	k_4	k_4	k_4
v_1	v_2	v_3	v_4	v_1	v_2	v_3	v_4	v_1	v_2	v_3	v_4	v_1	v_2	v_3	v_4

Total is obtained by considering 16 combinations with i_1, i_2, i_3, i_4, i_5 , i.e. $16 \times 5 = 80$, sleep and attachment are added afterwards

Similarly verse 37 is illustrated as follows :

i_1	i_2	i_3	i_4	i_5	i_1	i_2	i_3	i_4	i_5	i_1	i_2	i_3	i_4	i_5	i_1	i_2	i_3	i_4	i_5
k_1	k_1	k_1	k_1	k_1	k_2	k_2	k_2	k_2	k_2	k_3	k_3	k_3	k_3	k_3	k_4	k_4	k_4	k_4	k_4
v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1

This gives 20 combinations of 3 elements each with v_1 . Similarly with v_2, v_3, v_4 , we get 20 combinations each, totaling to 80. Sleep and attachment are added afterwards.

Verse 39. When all the elements of the third class have come to an end [in dispersion as in v. 37], and we come again to it [third class] beginning, [the first element of] the second class changes [into its second element]; when all [the element of the second class] are [also] exhausted, [then] the first element [of the first class] changes [into its second element], [till the whole of the first class is also exhausted, and getting 80 combinations]³

Verse 40. The first class having come to an end [in dispersion as in verse 38, we come] to its beginning. [Then] [the first element] of the second class changes [into its second element]; [when all the elements of] the second class are also exhausted, [then the first element of] the third class changes [into its second element], [till the whole of the 3rd class is exhausted, getting 80 combinations].⁴

Verse 41. Divide the number by the number of the elements [in the class], the remainder gives the position of the element in its class. To the quotient add one. [Divide the sum by the number of the element

1. "paḍhamam paṇāpamāṇam kameṇa ṇikkhiviya uvarimāṇam ca /
 piṇḍam paḍi ekkekam ṇikkhitte hodi patthāro //37//"
 Cf. GJK (E), p. 29. Cf. also GJK, I, pp. 65-66.
2. "ṇikkhittu bidiyameṭṭam paḍhamam tassuvari bidiya mekkekkam /
 piṇḍam paḍi ṇikkheo evam savvattha kāyavvo //38//"
 Cf. GJK (E), pp. 29-30. Cf. also GJK, I, pp. 67-68.
3. "tadiyakkho antagado ādigade saṅkamedī vidiyakkho /
 doṇṇivi gantūnantam ādigade saṅkamedī paḍhamakkho //39//"
 Cf. GJK (E), p. 30. Cf. also GJK, I, pp. 68-69.
4. "paḍhamakkho anta gado ādigade saṅkamedī bidiyakkho /
 doṇṇivi gantūnantam ādigade saṅkamedī tadiyakkho //40//"
 Cf. GJK (E), p. 31. Cf. also GJK, I, pp. 70-71.

in the next class, the remainder again giving the position of the element in the class. This is carried on.] [If there is no remainder, [implying that the element is] last [in the class and then] one is not added [to the quotient].¹ Note: This gives the method of finding out number of element in an arbitrarily chosen combination, say 15th. To find out the vikathā element, divide 15 by 4, the remainder is 3, hence the vikathā is the 3rd, i.e. rāṣṭra kathā. Adding one to the quotient 3, we get 4, to find out the affection (kaṣāya) divide 4 by 4, leaving no remainder. That implies the last kaṣāya, i.e. greed (lobha). The quotient is one, and as there is no remainder, nothing is to be added to it. Divide 1 by 5, the remainder is 1, the sense (indriya) element is the first, i.e., touch (sparśa). Hence the 15th combination is one of rāṣṭra-kathā, lobha kaṣāya, sparśana indriya, nidrā and praṇaya. This is written as $v_3 k_4 i_1$, the third gossip, the fourth affection and the first sense. Verse 42. Taking 1, multiply it by the number of the elements of the last class, subtract from it the number of element which follow in their class the element given. Do the same for all steps.²

Note: This is the converse of the preceding verse. Here the order number of combination is sought, when the elements rāṣṭra kathā, lobha, and sparśana, etc., i.e. the 3rd gossip, 4th, affection, and 1st sense are given. Take 1, and multiply it by 5 sense, giving 5. Subtract from it 4, getting 1. [Here 4 is the order of sense following touch in their class.] Multiply the remainder by 4 affections, getting 4. Subtract from it nothing as no element follows greed (lobha) in the affection (kaṣāya) class getting 4. Multiply this 4 by 4 vikathās giving 16. Subtract one as one vikathā follows rāṣṭra-kathā in the vikathā class, resulting in 15. This 15 is the order number of this combination.

Verse 43. Placing the 1, 2, 3, 4, 5; 0, 5, 10, 15; 0, 20, 40, and 60 in three lines of three classes of carelessness (pramāda), find out the elements or the number of the combination, i.e., analysis (naṣṭa) and synthesis (uddiṣṭa)³

Note:

senses	i_1 touch 1	i_2 taste 2	i_3 odour 3	i_4 sight 4	i_5 hearing 5
affection	k_1 anger 0	k_2 pride 5	k_3 deceit 10	k_4 greed 15	
talks	v_1 woman 0	v_2 food 20	v_3 seditious 40	v_4 scandalous 60	

1. "sagamāṇehiṇ vibhatte sesaṁ lakkhittu jāṇa akkhaṇaḍaṁ /
laddhe rūpaṁ pakkhība suddhe ante ṇa rūpa pakkhebo //41//
Cf. GJK (E), p. 31. Cf. also GJK, I, pp. 71-72.

2. samthāvidūṇa rūpaṁ uvarido saṅguṇittu sagamāṇe /
avaṇijja aṇaṅkidayaṁ kujjā emeva savvattha //42//
Cf. GJK (E), p. 32. Cf. also GJK, I, pp. 73-74.

Note: For attempts at combinations in China, cf. Needham and Ling (1959- BB), vol.3, pp. 139, et seq. For attempts in India, cf. Bose, et al (1971-BB), pp. 156 et seq. Cf. also, ibid., pp. 162-163, for attempts by The Jaina School, in prastāranayanopāya. Cf also "prastāra-ratnāvalī", op. cit.

3. "igiviti capanakha panadasa pan narasam kha visatala sattiya /
samthaviya pamada thane natthuddittham ca jana titthāne //43//
Cf. GJK (E), p. 33. Cf. also GJK, I, pp. 74, et seq. Cf. also various books and research papers on combinations, noted in the BB and BR, in the "Exact Sciences in the Karma Antiquity" for comparing the method and contexts.

To find out the order number, add the figures placed against the elements and the total is the number of the combination. In order to find out the elements from a given number, break it up into 3 such numbers, so that one of them must be found in each one of the 3 lines, and the total of these must be equal to the given number. For instance 32 can be broken into 2, 10 and 20 to represent 2-taste, 10-deceit, 20-food gossip. Hence the 32nd combination has for its elements food talk, deceit affection, taste sense, sleep and attachment. The diagram given above sums up vv. 37-39.

Verse 44. Placing 1, 2, 3, 4; 0, 4, 8, 12; 0, 16, 32, 48, 64 in 3 lines of 3 classes of carelessness (pramāda), find out the elements or number of combination, i.e., analysis (naṣṭa) and synthesis (uddiṣṭa).¹

Note:

talk	woman 1 v_1	food 2 v_2	sedition 3 v_3	scandalous 4 v_4	
affection	anger 0 k_1	pride 4 k_2	deceit 8 k_3	greed 12 k_4	
sense of	touch 0 i_1	talk 16 i_2	odour 32 i_3	sight 48 i_4	hearing 64 i_5

This is the second mode of combination in vv. 38 and 40. In v. 44 the number 32 is represented by rāga, making use of place-value notation in Kaṭapāyādi system. Here in v. 44, we could have a different combination from 25 sorts of gossip, 25 kinds of affection, 6 senses (including mind), 5 sorts of sleep and 2 kinds of attachment (charm and love). So that the total number of combination is $25 \times 25 \times 6 \times 5 \times 2 = 37,500$.

Verse 49. The duration of the [low tended-operation (adhaḥ-pravṛtta-karaṇa)] is one inter muhūrta (antar-muhūrta, the transforms (pariṇāmas) in it are innumerate times the innumerate spare-points in the universe (loka); and in the upper levels they increase in purity through similar increment.²

Note: In the JTP karṇāṭa and Sanskrit commentaries certain rules for dealing with progression relevant to verse 49 are given from p. 81 to 112. We have explained this through ancient symbols elsewhere. The verses have also been translated in the collection of all verses in the appendix.

1. "igiviti ca kha cadavaram khasolaragattha dalacausatthim /
saṁthaviya pamādaṭṭhāṇe naṭṭhuddiṭṭham ca jāṇa tiṭṭhāṇe //44//
Cf. GJK (E), pp. 34-36. Cf. also GJK, I, pp. 75-78. A text, "Sri Prastāra Ratnāvalī" compiled by R.C. Swami in Gujarati (Sāṁvat 1981). may be seen (1924 Bibliography of source material) at p. 125, comparable with Bag A.K. (1979, BB), pp. 187-193
2. "anto muhuttametto takkalo hodi tattha pariṇāma /
loga nāmasaṁkhamido uvaruvarim saṁsavaddhigaya //49//
Cf. GJK (E), p. 38, and also p. 42-44. Cf. also GJK, I, pp. 81-112.

Hence we summarise the process of manipulation in the commentaries as follows; used for the three types of operations:

Denomination	Working Symbol
sum (sarva-dhana or pada-dhana)	S
number of terms (pada or gaccha)	n
common difference (caya or viśeṣa)	d
first term (mukha-ādi or prabhava)	a
last term (anta dhana or bhūmi)	l
middle term (madhyama-dhana)	m
	or $\frac{a + l}{2}$
initial sum (ādi-dhana)	na
common-difference sum (caya dhana)	(n - 1) d
post-sum (uttra-dhana)	$\frac{n}{2} [(n - 1)d]$

Formulas:

1. Sum (sarva-dhana) is equal to the sum of the initial sum (ādi-dhana) and post-sum (uttara-dhana) :

$$S = na + \frac{n}{2} (n - 1)d.$$

2. Sum is half the total of first term (ādi) and last term (anta dhana) as multiplied by the number of terms (pada)

$$S = n \left(\frac{a + l}{2} \right)$$

3. Number of terms (gaccha or pada) is equal to the ratio of difference of the last term (anta-dhana) and first term (ādi) to the common difference (caya), and then added by unity

$$n = \frac{l - a}{d} + 1.$$

4. Half the common-difference (caya) is obtained by first dividing the sum (sarva dhana) by the number of term (gaccha) and reducing the quotient by the first term (ādi) and then dividing the result by number of terms (gaccha) as reduced by unity:

$$\frac{d}{2} = \frac{\frac{S}{n} - a}{n - 1}.$$

5. Half the common difference is also obtained by first subtracting from the sum (sarvadhana) the initial-sum (ādidhana) [first term (ādi) as multiplied by number of terms (gaccha)], and then dividing the remainder by the product of the number of terms (gaccha) and the number of terms (gacchas) as reduced by unity :

$$\frac{d}{2} = \frac{S - na}{n(n - 1)}$$

6. First term is obtained by first subtracting the post-sum (uttara-dhana) from the sum (sarva-dhana), and then dividing the remainder by the number of terms (gaccha) :

$$a = \frac{S - \frac{n}{2}(n - 1)d}{n}$$

7. The last term is obtained as the sum of the first term and the common-difference-sum (caya-dhana)

$$l = a + (n-1)d$$

8. The sum is also obtained by multiplying the middle term (madhyama-dhana) by the number of terms (gaccha)

$$S = n\left(\frac{a + l}{2}\right)$$

9. Example there of about the low-tended-operation (adhaḥ-pravṛtta karaṇa) through numerical symbolism:

$$S = 3072, \quad n = 16 \text{ instants}, \quad d = 4,$$

then numerate (saṁkhyāta) =

$$a = \frac{S - \frac{n}{2}(n - 1)d}{n} = \frac{3072 - (8)(15)(4)}{16} = \frac{2592}{16} = 162$$

Hence the series is 162, 166, 170, 174, 178, 182, 186, 190, 194, 198, 202, 206, 210, 214, 218, 222.

It may be noted that mathematical manipulation of the theory of karma in the Digambara Jaina School of mathematics has been through sequences and series, progressions and regressions, as the series or sequences take up several types of structures in course of time duration, lapses, progressions, as nisusus (niṣekas), or cell-like structures with various life-times in successive instants (samayas). The Digambara Jaina School developed their studies in their own way, and it may be seen that their seem to be original attempts in developing their own techniques for the study of their functional- system-theory (karma-siddhānta).¹

1. For attempts in China, cf. Needham and Ling (1959, BB), vol. 3, pp. 137-139, found first in Chou Pei, inform of arithmetical progression. In the Jaina School of Digambara sect, The Tiloyapaṇṇattī of Yativṛṣabhācārya provides many types of progressions, applied in the study of cosmography. Cf. TPG for their mathematical details. For attempts at studies in progressive series in India, cf. Bose, etal. (1971, BB), pp. 144-145. Cf. also Gaṇita sāra saṁgraha of Mahāvīracārya, ed. Jain, L.C., (1963, BB), pp. 20-35, and other topics dealing with progressions. Cf. also, Bag, A.K., (1979, BB), pp. 180-187. Cf. also Shukla, K. S., (gune, 1971, BR), pp. 115-130, about the various types of summation of series, known as Saṅkalana, varga saṅkalana, ghana saṅkalana, saṅkalana-saṅkalana.

In the JTP (karnāṭaka vṛtti and Sanskrit ṭikā), there is given a detailed description of the following topics under the non-universal mathematics (alaukika gaṇita). The non-universal measure (alaukika pramāṇa or māna) is of four types : fluent-measure (dravya-māna), quarter-measure (kṣetra-māna), time-measure (kāla-māna), and phase-measure (bhāva-māna). The fluent-measure is of two types : number-measure (saṁkhyā-māna) and simile-measure (upamā-māna). The number-measure is of three types numerate (saṁkhyāta), innumerate (asaṁkhyāta), infinite (ananta), and so on. These are construction-sets, constructed through a set process. They assess the number-measure of an existential set. Then fourteen sequences, divergent in character are mentioned, describing in details the dyadic-square-sequence (dvirūpa-varga-dhārā), dyadic-cube-sequence (dvirūpa-ghana-dhārā) and dyadic-cube-non-cube-sequence (dvirūpa-ghanāghana-dhārā) applicable in the topic. The method of spread, distribute and multiply (viralana-deya-guṇana) is also given. Logarithms is also applied. Defining various types of sets, existent, the commentator proceeds to describe the eight types of simile-measure (upamā-pramāṇa or māna). Description is through quotations from earlier texts, specially the Tiloyapaṇṇatī. Logarithms and logarithms of logarithms to base two of certain simile sets have been extracted, as in the TLS¹

Verse 120 The gaining of capacities of development begins simultaneously, but the completion [of each of them] is effected gradually within the period of one intermuhūrta (antar-muhūrta), which increases in the case of each successive one.² [However, their total period does not exceed one inter muhūrta (antar-muhūrta)]. Note: Let the numerate be denoted by s, intermuhūrta may be denoted by Mi, which ranges from the trail (āvalī) as increased by unity instant (samaya) and denoted by A instant set, to the maximum value of instant set contained in 48 minutes as decreased by one instant (samaya).

1. The development of assimilation takes time A, for completion

2. The development of the body then takes time as instant-set $A \left(1 + \frac{1}{s} \right)$ instant-set

3. The development of the senses then takes time as instant-set $A \left(1 + \frac{1}{s} \right)^2$ instant-set

4. The development of the respiration then takes time as instant-set $A \left(1 + \frac{1}{s} \right)^3$ instant-set

5. The development of the speech then takes time as instant-set $A \left(1 + \frac{1}{s} \right)^4$ instant-set

6. The development of the mind then takes time as instant-set $A \left(1 + \frac{1}{s} \right)^5$ instant-set

1. Cf. GJK, I, pp. 207-250. Cf. also GJK (E), pp. 20-28. In the Tiloyapaṇṇatī, apart from the construction of various types of ordinals and cardinals, there may also be seen various, types of series, arithmetic, geometric, mixed. Specifically, the comparability of areas of successive rings of islands and seas is worth deep study. Cf. TPG for this purpose. Cf. also Jaini, J.L. (1918.BB), appendix B. Cf. also M. kumar (1969, BB), pp. 93, et seq.

2. "pajjattipatthavanam jugavam tu kamena hodi nitthavanam /
antomuhutta kale nahiyakama tattiyatava //120// Cf. GJK (E), pp. 84-86. Cf. also Chakrabarti, G.G. (1934, BR) for treatment of fractions. Other may also be seen aswell a, the DVL (vols. 3-4).

Each one of the above six periods from A to $A \left(1 + \frac{1}{s}\right)^5$ is an inter-muhūrta which is a variable as already told. And the total is also an intermuhūrta, given by $A s \left\{ \left(1 + \frac{1}{s}\right)^6 - 1 \right\}$ as we shall see by making use of the value of s.

Let S be taken as minimal numerate, i.e., 2, and let A be the minimal inter-muhūrta, i.e., one trail (āvalī) + 1 instants (samayas). Then the total is equal to $20 \frac{25}{32}$ trails (āvalīs) + $20 \frac{25}{32}$ instants (samayas). This is the minimal period of development (paryāpti) for developable rational bios. The total time of the first two development is

$$A + A \left(1 + \frac{1}{s}\right) = A \left(2 + \frac{1}{s}\right) \frac{5}{2} \text{ trails (āvalī) } + \frac{5}{2} \text{ instant (samayas).}$$

Summation of a geometric finite progression is worthy of note here.

Verse 153. Hellish souls or bios in all [are equal to the set of the space point in] universe-line as multiplied by the second square root [i.e. the fourth root] of one cube-finger. [Hellish bios] in the second and other [i.e. the third, fourth, fifth, sixth and the seventh hells are in number equal to the quotient of the space-point set of Universe-line as divided by its own twelfth, tenth, eighth, sixth, third and second root [respectively]].¹

Note: Let the universe-line be denoted by L and cube of finger-space-point set be denoted by F^3 . Then the total number of all the hellish-bios

$$\begin{aligned} &= L [F^3]^{1/4} . \\ \text{Those of the second hell} &= L \div [L]^{1/12} . \\ \text{Those of the third hell} &= L \div [L]^{1/10} , \\ \text{Those of the fourth hell} &= L \div [L]^{1/8} , \\ \text{Those of the fifth hell} &= L \div [L]^{1/6} , \\ \text{Those of the sixth hell} &= L \div [L]^{1/3} , \\ \text{Those of the seventh hell} &= L \div [L]^{1/2} , \end{aligned}$$

$$\text{Those of the first hell} = L [F^3]^{1/4} - [\text{the bios in the second hell to the seventh hell}].$$

Verse 157. [If we] divide the universe-line [space-point-set] by the square root of a linear-finger [space-point set], and divide the quotient set so obtained by the third root [of the linear-finger space-point set], [and then] subtract one [therefrom], [we obtain] the total number of all human beings [in the universe]. [The number of] developable [human beings alone] is equal to the cube of 2 squared times, [expressed as follows]:²

1. "samanna neraiya ghānaangula bīdiyamula guṇasedhi /
bīdiyadi baradasaachattidunija padahida sedhi //153//

Cf. GJK (E), pp. 101-102. Cf. also GJK I, pp. 282-284 for ancient symbolic representation, Cf. also TPG, p. 46.

2. "sedhi sui āṅgula adimatadiyapada bhajideguna /
samanna manusa rasi paṇcamakadighanasama punna //157//"

Cf. GJK (E), p. 103-104. Cf. also GJK, I, p. 286. Symbols given are १ | ३. Further symbol for the latter is 42 = 42 = 42 =. The latter is the badala cubed. Note how short the ancient symbolism was.

$$\left[\left(\left(\left(\left(\left(2 \right)^2 \right)^2 \right)^2 \right)^2 \right)^2 \right]^3$$

Verse 158. The number of the developable human bios is¹

79, 22, 81, 62, 51, 42, 64, 33, 75, 93, 54, 39, 50, 336.

Verse 170. The range of ocular vision is one lac minus three hundred and sixty [yojanas squared], multiplied by ten and then reduced to its square root, and then multiplied by nine as divided by sixty, would give the range of sight.²

Note: This works out as

$$\sqrt{(10000 - 360)^2 \times 10 \left(\frac{9}{60} \right)} = 14946 \sqrt{10} = 47263.392042 \text{ yojana}$$

For other senses maximal range of activities cf. vv. 168, and 169.³

Verse 213. [The quotient of] the pit (palya) divided by innumerate part of a trail (āvalī) subtracted [Once, twice, thrice, fourth and fifth times] from a sea (sāgara) is the number of the logarithm to base two respectively of gross fire-bodied, non-host individuals, host-individuals, earth-bodied, water-bodied [bios] and [the number of logarithm to base two of gross air-bodied [bios] [is] the last, i.e. full sea (sāgara).⁴

Note: For definition of sāgara, cf. Jaini, J.L. (1918, BB), appendix D.

Let $\frac{\text{avalī}}{\text{innumerate}} = \frac{A}{a}$, Sāgara = C, palya = P, then the number of logarithm to base two of gross- fire

bodied bios = $\frac{C - \frac{P}{a}}{a}$

1. "talalīna madhuga vimalam dhūma silāgāvi corābhaya meru /
tataharikhajhasā honti hu māṇusapajjatta saṁkhaṅkā //158//

42, p. 104. Here the use of Kaṭapayādi system has been made. Cf. also GJK, I. pp. 286-287. The same number has been quoted here in the katapayadi system from right to left as follows in JTP (kaṇṇāṭavṛtti):

"sādhūrarāja kīrtereṇāṅko bhāratī vilolaḥ samadhiḥ/
guṇavargga dharmma nigalita-saṁkhyā vanmāṇaveṣu varṇakramtaḥ//
cf ibid p. 287.

2. "tiṇṇisaya saṭṭhi virahidalakkham dese mūla tāḍide mūlam /
ṇava guṇide saṭṭhi hide cakkhupphā sassa addhāṇam //170//"
42, pp. 108-109. Cf. also GJK, I, PP. 299-300.

3. Note use of $\sqrt{10}$ here. This is connected with astronomy of the sun in Jambū island cf. GJK, I, pp. 299-300.

4. "āvalī asaṁkhabhāgeṇa vahida pallū ṇasā yaraddhachidā /
bādara tepaṇi bhūjala vādāṇam carima sāyasam puṇṇam //213//
Cf. GJK (E), p.128 Cf. also GJK, I, pp. 347-349.

The next verse give manipulation with these expressions on form their differences. Then the 2 is raised to the expression as exponent.

The number of logarithms to base two of non-group mono-souled = $C - \frac{P}{\left(\frac{A}{a}\right)^2}$

The number of logarithms to base two of group mono-souled = $C - \frac{P}{\left(\frac{A}{a}\right)^3}$

The number of logarithms to base two of earth-bodied mono-souled = $C - \frac{P}{\left(\frac{A}{a}\right)^4}$

The number of logarithms to base two of water-bodied mono-souled = $C - \frac{P}{\left(\frac{A}{a}\right)^5}$

The number of logarithms to base two of air-bodied mono-souled = C

Verse 215. Divide the logarithm to base two of result of data by the logarithm to base two of the given figure in data. This will give the index number of the data. Divide the index of the 'desired' by the index of the data, writing the result of the data as many times as there are units in the last quotient, and multiply them all into each other. This is the desired result.¹

Note: We shall explain this numerically.

If 2 is raised to power 16, we get $(2)^{16} = 65536$ or paṇṇaṭṭhī
 If 2 is raised to power 64, we get $(2)^{64} = ?$ or ekaṭṭhī

Thus the measure (pramāṇa) set (rāśi)
 16 is the spread-set (viralana rāśi)
 2 is the distribution-set (deya rāśi)
 and $(2)^{16} = 65536 =$ acquisition set (phala rāśi), (or labdha rasi)

In requisition set (icchā rāśi)
 64 is the spread set (viralana rāśi)
 2 is the distribution set (deya rāśi)
 and $(2)^{64}$ is the acquisition set (labdha rāśi)

22. "diṇṇicchedenavahida iṭṭhacchedehiṃ payadaviraṇaṇaṃ bhajide /
 laddhamideiṭṭha rāsinaṇṇona hadie hodi paya daddhaṇaṃ //215//

Cf. GJK (E), pp. 129, 130, 131. Cf also GJK, I, pp. 391, et seq. Rule of these sets (trairāśika) has been extensively applied in the works on karma theory. Cf Gupta, R.C., (Dec. 1974 BR).

Formula is : $\frac{\text{logarithm of acquisition set to base two in measure set}}{\text{logarithm of distribution set in measure set}} = \text{spread set in requisition set}$

or

$$\left\{ \frac{\text{sprad set in requisition set}}{\text{spread in measure set}} \right\}$$

[acquisition set in measure set]

= acquisition in requisition set.

Applying the above formula to the numerical symbolism we have

$(6\ 5\ 5\ 3\ 6)^{\frac{64}{16}} = (65536)^4 = 18, 44, 67, 44, 07, 37, 09, 55, 16, 16$, which is called ekaṭṭhī. In the dyadic sequences,

$$\text{paṇṇaṭṭhī} = 65536 = \left[(2)^{(2)^4} \right]$$

$$\text{vādāla} = \left[(2)^{(2)^5} \right]$$

$$\text{and ekaṭṭhī} = \left[(2)^{(2)^6} \right]$$

A verse occurs quoted in the GJK, I. p. 352 :

"viraḷaṇa rāsīdo puṇa jettiya mettāṇi hīnarūvāṇi /
tesim aṇṇoṇṇahade hāro uppaṇṇarāsissa //"¹

Verse 254. At every instant (samaya), only one unit, instant effective bond (samaya prabaddha) is bound and comes into operation, or rises. At the last [instant of the duration of any instant effective- bond (samaya prabaddha)] the number of state (sattva), existence of functional-ultimate-particles (karma-paramāṇus) is one and a half times the number of geometric-regressions (guṇahānis) as multiplied by the instant-effective-bond (samaya-prabaddha).²

Note: Here the geometric-regression (guṇahāni) means the geometric-regression length (guṇahāni-āyāma). In the example in the note below it is evident that the number of niṣusus (niṣekas) disintegrated in the first 48 instants (samayas) will respectively, be denoted numerically through the following six geometric-regressions (guṇahānis):

1. Cf. GJK, I, p. 352.

2. "ekkaṃ samayapabaddhaṃ bandhadi ekkam udedi carimammi /
guṇahānīṇa divaḍḍhaṃ samayapabaddhaṃ have sattam //254//

Cf. GJK (E), p.148. Cf. also GJK, I, pp. 406, 407.

1.	512,	480,	448,	416,	384,	352,	320,	288.
2.	256,	240,	224,	208,	192,	176,	160,	144.
3.	128,	120,	112,	104,	96,	88,	80,	72.
4.	64,	60,	56,	52,	48,	44,	40,	36.
5.	32,	30,	28,	26,	24,	22,	20,	18.
6.	16,	15,	14,	13,	12,	11,	10,	9.

From the above it is easy to calculate that at the last instant (samaya) the non-disintegrated nisusus (niṣekas) will be 71, 304, and it is just a little less than $1\frac{1}{2}$ geometric-regression-length (guṇahāni-āyāma)

times the instant-effect-bond (samaya-prabaddha), i.e. $1\frac{1}{2} \times 8 \times 6300 = 75600$.

Verse 255. But the duration or life time of the instant-effective-bond (samaya-prabaddha), [which is bound to the two bodies, macro physical (audārika) and transformable (vaikriyika) is] the total length of ones age minus it length already exhausted. At the last [instant (samaya) of life] the number of the state existence (sattva) functional ultimate particles (karma-paramāṇus) is one and a half times the geometric-regression (guṇahāni) and [all of them disintegrated by] operation]. [This is necessarily so as in the movement with bend (vigraha gati), the bios cannot have the macro physical (audārika), transformable (vaikriyika), or assimilative (āhāraka) bodies].¹

Note: Geometric-regression be denoted by G, being the set of the number of terms (gaccha) of a series whose sum is the number of nisusus (niṣekas) denoted by G of an instant-effective-bond which is denoted by B. And each term in which is half of the term immediately preceding it. The geometric-regression-length, is the duration life-time-bond (sthiti-bandha as divided by the geometric-regressions set or the N as the number of instants (samayas) in one geometric-regression (guṇahāni).

Various geometric-regression (nānā guṇahānis) is the aggregate of the geometric regressions (guṇahānis) in an instant-effective-bond (samaya-prabaddha). This will be denoted by N.

Mutual-product-set (anyonyābhyasta-rāśi) is two as raised to the power of the number of geometric-regressions (guṇahānis) in an instant-effective-bond (samaya-prabaddha).

Let the duration of life-time-bond be denoted by T

Thus geometric-regression-length (guṇahānis-āyāma) or

$$n = \frac{\text{duration of the life time bond (sthiti bandha)}}{\text{number of geometric regressions (guṇahānis)}}$$

$$n = \frac{T}{N}$$

Numerically, let the duration of the life-time-bond (sthiti-bandha) be 48 samayas for any instant-effective-bond (samaya-prabaddha), and let 6 be the number of geometric-regressions (guṇahāni),

then the geometric-regression-length (guṇahāni-āyāma) = $\frac{48}{6} = 8$.

1. "navari ya dusarīrāṇaṁ galida vasesā umettathidibandho /
guṇahānīṇa divaḍḍhaṁ saṁcaya mudayaṁ ca carimamhi //255//
Cf. GJK (E), pp. 148-150. Cf. also GJK, I, p. 408.

Here 6 is also called various-geometric-regression (nānā-guṇahāni).

Here mutual-product set (anyonyābhyasta-rāśi) is $= (2)^6 = 64$

Let an instant-effective-bond (samaya-prabaddha) have 6300 nīsus (niṣekas), then the last term

in the series is given by $\frac{6300}{(2)^6 - 1}$ or $\frac{6300}{64 - 1}$ or 100.

Thus the series of 6 geometric-regressions (guṇahānis), each of which contain following nīsus (niṣekas), respectively

$$= 3200 + 1600 + 800 + 400 + 200 + 100 \text{ whose total sum} \\ = 3200 + 1600 + 800 + 400 + 200 + 100 = 6300 \text{ nīsus.}$$

Each has the length of 8 samayas¹

Now the bios which binds at an instant (samaya), 6300 nīsus (niṣekas), of life-time-bond duration 48 instants (samayas), and of 6 geometric-regressions (guṇahānis), which is integrate

3200	nīsus (niṣekas) in the	1st set of eight samayas
1600	nīsus (niṣekas) in the	2nd set of eight samayas
800	nīsus (niṣekas) in the	3rd set of eight samayas
400	nīsus (niṣekas) in the	4th set of eight samayas
200	nīsus (niṣekas) in the	5th set of eight samayas
100	nīsus (niṣekas) in the	6th set of eight samayas

The nīsus-divisor (niṣekahāra) is twice the length of the geometric-regression (guṇahāni), that is 2n. Thus in the above illustration, nīsus-divisor (niṣeka-hāra) is double of 8 or it is 16.

Common-difference (caya) is the uniform arithmetic difference, say d, between any two consecutive terms of the series of a geometric-regression (guṇahāni).

Thus common difference (caya)

$$= \frac{\text{nīsus - divisor (nīsekahāra) + number of geometric-regression length (guṇahāni āyāma) + 1}}{2}$$

$$\times \left[\text{geometric regression length (guṇahāni āyāma)} \right]$$

$$\text{nīsus of a geometric - regression} \times 2$$

$$= \frac{\left(\text{nīsus - divisor + number of geometric regression length + 1} \right) \times \left(\text{geometric regression length} \right)}{\text{nīsus of a geometric regression} \times 2}$$

$$= \frac{\text{nīsus of a geometric regression} \times 2}{(2 \text{ geometric - regression length} + \text{number of geometric regression length} + 1) \times (\text{geometric regression length})}$$

1. This is the simplest numerical representation of the state matrix of karma, consisting of a lapering structural matrix corresponding to the life-time of a nīsus (niṣekas). Here two types of regressions are involved the regression and arithmetic-regression.

$$= \frac{G \times 2}{\left(2 \frac{f}{N} + \frac{f}{N} + 1\right) \cdot \frac{f}{N}}$$

Nisusus (niṣekas) disintegrated at first instant be denoted by G_{i_1} in any geometric regression (guṇahāni). Then

G_{i_1} = common difference \times nisus divisor = caya \times niṣekahāra

$$= \frac{46}{\frac{3f}{N} + 1} = \frac{G}{\frac{3}{4} \frac{f}{N} + 1}$$

where G is the number of nisuses (niṣekas) in a geometric regression (guṇahāni), f is the total instants (samayas) in life-time-bond (sthiti-bandha), and N is the number of geometric-regressions.

$$\therefore G_{i_1} = \frac{4G \cdot N}{3f + N} \cdot \text{common difference} = \frac{\text{1st term}}{2 \text{ geometric regression length}} = \frac{G_{i_1}}{2 \frac{f}{N}}$$

Thus in the 4th eight-samaya-set in the above example 400 nisusus (niṣekas) are disintegrated. Thus

$$G_{i_1} = \frac{4 \times 400}{\frac{3f}{N} + 1} = \frac{4 \times 400}{3 \frac{48}{6} + 1} = \frac{1600}{25} = 64$$

which is the number of nisusus disintegrated at first instant.

Now common difference (caya) may be found from formula

$$d = \frac{G_{i_1}}{\frac{2f}{N}} = \frac{64}{\frac{2 \times 48}{6}} = \frac{64}{16} = 4$$

Hence the number of nisusus disintegrated in the 4th set of eight instants (samayas) will be 64, 60, 56, 52, 48, 44, 40, and 36, totalling to 400.

Thus when in one instant (samaya), the bios binds 6300 nisusus (niṣekas) of a duration of 48 instants (samayas) then they are usually disintegrated as follows:

										Total
First	8 instants :	512,	480,	448,	416,	384,	352,	320,	288	= 3200
Second	8 instants :	256,	240,	224,	208,	192,	176,	160,	144	= 1600
Third	8 instants :	128,	120,	112,	104,	96,	88,	80,	72	= 800
Fourth	8 instants :	64,	60,	56,	52,	48,	44,	40,	36	= 400
Fifth	8 instants :	32,	30,	28,	26,	24,	22,	20,	18	= 200
Sixth	8 instants :	16,	15,	14,	13,	12,	11,	10	+ 9	= 100
Grand total										= 6300

The above 6300 is also the fluent (dravya) of an instant-effective-bond (samaya-prabaddha) bound at an arbitrary instant (samaya). This is explained through numerical symbolism as follows by Ṭodaramala, and in greater details in GJK, I, p. 397, et seq.

FURTHER EXPLANATION :

Whatever is the geometric regression-length (guṇahāni-āyāma) of the life-times (sthitis) of the macrophysical (audārika) etc., bodies, it is multiplied by two, getting two-geometric-regression (do-guṇahāni), also called nīśus-divisor (nīśekahāra).

According to numerical-symbolism (aṅka-saṁdṛṣṭi), let the fluent (dravya) of instant-effective-bond (samaya-prabaddha) of the macro-physical (audārika) body be 6300; life-time (sthitī) 48 ; geometric-regression (guṇahāni) 8; various geometric-regression (nānā-guṇahāni) 6; two-geometric regression (do-guṇahāni) 16; mutual product set (anyonyābhyasta-rāśi) 64. The instant-effective-bonds (samaya-prabaddhas) of macro-physical body (audārika-śarīra) happen to be along with configuration-bond (prakṛti-bandha), life-time-bond (sthitī-bandha) energy-bond (anubhāga bandha) and particle-bond (pradeśa-bandha).

Out of them the configuration bond (prakṛti-bandha) and particle-bond (pradeśa-bandha) are due to volition (yoga), where as life-time-bond (sthitī-bandha) and energy-bond (anubhāga-bandha) are due to affection (kaṣāya). The maximal life-time-bond (sthitī-bandha) of functional finishing (kārmāṇa) instant-effective-bond (samaya-prabaddha) bound at an arbitrary instant (samaya) is seventy crore-squared sea-instant-set (sāgara-samaya-rāśi). In that, from first instant to seven-thousand years period is the time-lag-period (ābādhā-kāla). Leaving it, the remainder life-time (sthitī), from first instant upto the last instant there happen to be nīśusus (nīśekas) in form of ultimale-particle-quanta (paramāṇu-puñja). Every nīśus (nīśeka) has its life-time (sthitī) as its own time-measure. Their structure is shown through numerical symbolism (aṅka saṁdṛṣṭi) as follows :

At an arbitrary instant (samaya), the fluent (dravya) of instant-effective-bond (samaya-prabaddha) of functional finishing (kārmāṇa) bound at the instant (samaya) is 6300 as per numerical symbolism.

"When the fluent (dravya) is divided by mutual-product-set (anyonyābhyasta rāśi) as reduced by unity, the fluent (dravya) of the last geometric regression (guṇahāni) is obtained. From that, upto the first geometric-regression (guṇahāni), the fluent (dravya) goes on doubling.¹

According to this rule, the mutual product set (anyonyābhyasta rāśi) of functional finishing (kārmāṇa) body (śarīra) has the measure obtained on dividing the logarithm of logarithm to base two of pit (palya) by pit (palya). That, as per numerical symbolism is supposed as 64. It is reduced by unity getting 63. Then on dividing 6300 by 63, we get 100 as the fluent corresponding to last geometric regression (guṇahāni) out of 6 various geometric regression (nānā guṇahāni). Further upto the first geometric regression (guṇahāni), this fluent (dravya) becomes double and double successively. Then the last geometric regression (guṇahāni) fluent (dravya) is multiplied by two raised to power various geometric regression (nānā guṇahāni) as reduced by unity, i.e., by 2⁵ or 32, which is half of mutual product set (anyonyābhyasta rāśi), getting 3200 which is the fluent (dravya) of the first geometric regression (guṇahāni). In this way, the fluent (dravya) of all the six geometric-regressions (guṇahānis) is successively 100, 200, 400, 800, 1600, and 3200.

"When the geometric-regression-length (guṇahāni-āyāma) divides the total sum (sarvadhana), the middle sum (madhyama-dhana) is obtained."² According to this rule 3200 is divided by 8, the geometric-regression-length (guṇahāni-āyāma), getting 400 as the middle-sum (madhyama-dhana). "When it is divided by nīśus-divisor (nīśeka-hāra) as reduced by half of geometric-regression (guṇahāni) less unity, the common difference (pracaya) corresponding to its first geometric regression (guṇahāni) is obtained."³

1. "rūṇaṇṇaṇṇabbhatthavahidadavvaṁ tu carimaguṇo davvaṁ / hodi tado duguṇa kamā ādima guṇahānidavvotti //" Cf. GJK, I, p. 397.
2. "addhāṇeṇa savvadhāṇe khaṇḍide majjhima dhaṇamāgacchadi". cf. ibid., p. 398.
3. "rūṇṇaadhāṇa addheṇuṇeṇa nīseyahāreṇa majjimadhaṇa move hidide pacayaṁ". Cf. ibid., p. 398.

As per this rule, $400 \div \left[16 - \frac{8-1}{2} \right] = 400 \div \frac{25}{2} = 32$ the common difference (caya). This common difference (caya) is multiplied by nisus-divisor (niṣeka-hāra), getting 32×16 or 512 which is the first nisus (niṣeka) of the first geometric-regression (guṇahāni). Above and still above it, upto the last nisus (niṣeka) of that geometric-regression having gone through the sequence reducing through common-difference (caya), one by one, at the last nisus (niṣeka), there happens to be reduction of common-difference (caya) as multiplied by number of terms (gaccha) as reduced by unity. Thus, it is common-difference (caya) as multiplied by geometric-regression (guṇahāni) as increased by unity, i.e. $32 \times 9 = 288$. Thus the nisus-structure (niṣeka-racanā) of the first geometric-regression (guṇahāni) is $512|480|448|416|384|352|320|288|$.

Similarly the fluent (dravya) of second geometric-regression (guṇahāni), i.e. 1600, is divided by geometric-regression-length (guṇahāni āyāma), i.e. 8, getting middle-sum (madhya-dhana) as 200. This is divided by nisus-divisor (niṣeka-hāra) as reduced by geometric-regression-length (guṇahāni-āyāma)

less unity. Thus $200 \div \left[16 - \frac{8-1}{2} \right]$ gives 256 as the first nisus (niṣeka). This goes on reducing by its common difference (caya) one by one till last nisus (niṣeka) is obtained when first nisus (niṣeka) is reduced by common-difference (caya) as multiplied by number of terms (gaccha) less unity. Thus the last nisus (niṣeka) is common-difference (caya) as multiplied by geometric-regression-length (guṇahāni āyāma) increased by unity, i.e. $16 \times 9 = 144$. Thus the structure of all nisusus of all geometric-regresions (guṇahānis) of one instant-effective bond (samaya-prabaddha) is as follows :

288	144	72	36	18	9
320	160	80	40	20	10
352	176	88	44	22	11
384	192	96	48	24	12
416	208	104	52	26	13
448	224	112	56	28	14
480	240	120	60	30	15
512	256	128	64	32	16
3200	1600	800	400	200	100

Similar nisus-structure (niṣeka racanā) is about the remaining life-times (sthiti) of quasi-functional (nokarma) instant-effective-bonds (samaya-prabaddhas), upto the phosphorescent (taijasa) bodies. The description is also given through gauge-symbolism (arthasamdr̥ṣṭi).

Now the state (sattva) existence is shown to be than instant-effective-bond (samaya-prabaddha) as multiplied by slightly less one and half geometric-regression (guṇahāni).¹

There is rise of the last nisus (niṣeka) of an arbitrary instant-effective-bond (samaya-prabaddha) bound owing to ab-aeterno bond. Numerically we denote it by 9. Then at the same instant, second nisus (niṣeka), 10, rises from the end of the instant-effective-bond (samaya-prabaddha) bound at the next instant

¹ Cf. Jain. L.C. (1979 BR). Compare this structure with the axiomatic constant structre theory of general system theory:

CNCTEMHBIE NCCJIEAOBAHNA (1971, BB), pp. 128-152, (year book).

of the earlier mentioned instant-effective-bond (samaya-prabaddha). At the same instant there rises the third nisus (niṣeka), 11 of the instant-effective-bond (samaya-prabaddha) bound at a later next instant. Similarly, at the same instant, owing to sequential rise (udaya) of fourth, etc., nisisus (niṣekas) from the end of the instant-effective-bonds (samaya-prabaddhas) bound at fourth, etc., instants, ultimately the first nisus (niṣeka) of the instant-effective-bond (samaya-prabaddha) bound at the last instant reached after having gone through as many stations (sthanas) as there are instants (samayas) of arbitrarily chosen life-time (sthiti) without time-lag (ābādhā). In this way, at the arbitrary instant there is bond of one instant-effective-bond (samaya-prabaddha) and rise of one instant-effective-bond (samaya-prabaddha), and there remains state-existence (sattva) of measure of measure of instant-effective-bond (samaya-prabaddha) as multiplied by slightly less one and half geometric-regressions (guṇahānis). Its symbolism is as follows:

There does not remain any rise of the instant-effective-bonds (samaya-prabaddhas) whose all nisisus (niṣekas) have decayed away. Taking the life-time (sthiti) of an instant-effective-bond (samaya prabaddha) to be 48 instants (without time-lag) the instant-effective-bond (samaya-prabaddha) whose 47 nisisus (niṣekas) have decayed away, its last nisus (niṣeka), 9, rises at the present instant (samaya). The instant effective bond (samaya prabaddha) whose 46 nisisus (niṣekas) have decayed away, its last but one nisus (niṣeka), 10, rises at the present instant. Similarly, the instant-effective-bond (samaya-prabaddha) whose not a single nisus (niṣeka) has decayed away, its first nisus (niṣeka), 512, rises at the present instant. In this way, at an arbitrary instant, all nisisus (niṣekas) rise :

9,10,11,12,13,14,15,16|| 18,20,22,24,26,28,30,32|| 36,40,44,48,52,56,60,64||

72,80,88,96,104,112,120,128|| 144,160,176,192,208,224,240,256||

288,320,352,384,416,448,480,512||. On adding all these we get the measure of a full instant-effective-bond (samaya-prabaddha).¹

Later on, further and further as there is rise of nisisus (niṣekas) of newly bound instant-effective-bond (samaya-prabaddha), there happen to be the absence of rise of the nisisus (niṣekas) of old bound instant-effective-bond (samaya-prabaddha).

For example, at the following instant let nisus (niṣeka), 512, of new, instant-effective-bond (samaya-prabaddha) rises then the second nisus, 480, of the instant-effective-bond (samaya-prabaddha) will rise at the following instant if at the present instant its nisus (niṣeka) 512 is in rise. The instant-effective-bond (samaya-prabaddha) whose nisus, 480, is in rise, its third nisus (niṣeka), 448, will rise at the following or subsequent instant (samaya). In the same way the instant-effective-bond (samaya-prabaddha) whose nisus (niṣeka), 9, is in rise at the present instant, its rise ceases at the following instant. Every instant this sequence follows. Hence, at every instant, there is rise of one instant-effective-bond (samaya-prabaddha), one by one, on joining of nisisus (niṣekas) rising in the earlier-bound instant-effective-bond (samaya-prabaddhas). At the end, when all the remaining nisisus (niṣekas) are added, we get slightly less one and half geometric-regression times instant-effective-bond (kiñcidūna dvyardha guṇahāni guṇita samaya-prabaddha) as measure of state (sattva).

Now we explain how to calculate the measure of state (sattva) process of calculating the state (sattva)²

1. It may be remembered that this is the usual unperturbed sequence when volition (yoga) function and other operations are constants. As these factors vary, there is change as described in the Labdhisāra. The process becomes complicated.

2. Cf. GJK, I, pp. 415, et seq.

The instant-effective-bond (samaya-prabaddha) whose not a single nisus (niṣeka) has decayed, all its nisusus (niṣekas) may be written below in one line. Above it, in a line, write all the remaining nisusus (niṣekas) of the instant-effective-bond (samaya-prabaddha) whose one nisus (niṣeka) has decayed, leaving this decayed first nisus (niṣeka). Still above write in a line all the remaining nisusus (niṣekas) of the instant-effective-bond (samaya-prabaddha) whose two nisusus (niṣekas) have decayed, leaving these two nisusus (niṣekas). In this way, above and above, all remainder nisusus (niṣekas) be written in rows, one by one, reducing through one nisus (niṣeka) in every subsequent line or row. Above all these, the instant-effective-bond (samaya-prabaddha) whose only one last nisus (niṣeka) has remained, that may be written.

On having done this, it is found that there happens to be a triangular [matrix] structure. For example, at the bottom of all, 48 nisusus (niṣekas) are written in a row. Above it, leaving 512 nisus (niṣeka)-label remaining 47 nisusus (niṣekas) are written. Still above it leaving the nisusus 512 and 480, remaining 46 nisusus (niṣekas). In this way, nisusus are written in above and above rows in a reducing sequence reducing by one each time. At the end, above all, only digit of 9 is written. In this way this is triangular structure, whose summation gives the total state-existent-fluent (sattva-dravya), which happen to be slightly less one and half geometric-regressions (guṇahānis) times an instant-effective-bond (samaya-prabaddha). This may be illustrated as follows; for example for the last geometric-regression (guṇahāni)

										sā 70 ko 00000
									9	
								9	10	
							9	10	11	
						9	10	11	12	
					9	10	11	12	13	
			9	10	11	12	13	14	15	
		9	10	11	12	13	14	15	16	
	9	10	11	12	13	14	15	16	17	
joḍa (sum)	9	19	30	42	55	69	84	100	118	

The process is further illustrated as follows:¹

9	9	9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
144	160	176	192	208	224	240	256	288	320	352	384
160	176	192	208	224	240	256	288	320	352	384	416
176	192	208	224	240	256	288	320	352	384	416	448
192	208	224	240	256	288	320	352	384	416	448	480
208	224	240	256	288	320	352	384	416	448	480	512
224	240	256	288	320	352	384	416	448	480	512	0
240	256	288	320	352	384	416	448	480	512	0	0
256	288	320	352	384	416	448	480	512	0	0	0
288	320	352	384	416	448	480	512	0	0	0	0

Whatever measure of the geometric-regression-length (guṇahāni āyāma) was stated earlier, into it, on adding half of its measure, one and half geometric-regressions (guṇahānis) are obtained.² From it is subtracted the one eighteenth part of the geometric-regression (guṇahāni) as increased by slightly less numerate times the logarithm of logarithm to base two of the pit (palya). The remainder is called slightly less geometric-regression (kiñcidūna dvayardha guṇahāni). It is multiplied by the number of ultimate-particles (paramāṇus) of the instant-bond (samaya-prabaddha), and the resulting quantity is the measure of the summation of all elements or nisusus (niṣekas) of the triangular matrix structure (triakoṇa yantra racanā).

1. A historical remark may not be irrelevant here. Remarks are from Capra as follows," Thus the bootstrap philosophy represents the culmination of a view of nature that arose in quantum theory with the realization of an essential and universal interrelationship, acquired its synamce content in relativity theory, and was formulated in terms of reaction probabilities in S-matrix theory. At the same time, this view of nature came ever closer to the Eastern world view and is now in harmony with Eastern thought, both in its general philosophy and in to specific picture of matter. Vide Capra, F., (1984., BB). p. 276. The relevance is with the Karma state-matrix-picture, of the Digambara Jaina School.

2. Cf. GJK, I, p. 417.

Now according to numerical symbolism, when all the columns and last added up row are added for the nisusus (niṣekas), the total is obtained as seventy one thousand three hundred and four, i.e. 71304, as follows in separate form of all geometric-regressions (guṇahāni) :-

sixth geometric regression (guṇahāni)	fifth geometric regression (guṇahāni)	fourth geometric regression (guṇahāni)	third geometric regression (guṇahāni)	second geometric regression (guṇahāni)	first geometric regression (guṇahāni)	
9	118	336	772	1644	3388	
19	138	376	852	1804	3708	
30	160	420	940	1980	4060	
42	184	468	1036	2172	4444	
55	210	520	1040	2380	4860	
69	238	576	1252	2604	5308	
84	268	636	1372	2844	5788	
100	300	700	1500	3100	6300	
joda (sum) 408	1616	4032	8864	18528	37856	71304

When half of the geometric-regression-length (guṇaśrenī-āyāma) is added to the geometric-regression-length (guṇaśrenī-āyāma), then one and half geometric-regressions (guṇahānis) or $4+8 = 12$ is obtained. Now the ultimate-particles (paramāṇus) of the instant-effective-bond (samaya-prabaddha) are 6300 which is multiplied by 12 getting $6300 \times 12 = 75600$. This is greater than the sum of the nisusus of the triangular structure which is 71304. Hence the state-existence (sattva) has been stated to be slightly less one half geometric-regression (kiñcidūna dvayardha guṇahāni) times the instant-effective-bond (samaya-prabaddha).

There are three methods of summation of the state fluent (sattva-dravya) stationed in the triangular structure.

1. By summation of successively reduced terms
2. By summation of successively increased terms
3. By regular and converse summation of terms

We describe a small portion of the first method of successively reducing series summation :¹

In the nisus (niṣeka) of the first instant-effective-bond (samaya-prabaddha), there are 6300 instant-effective-bonds (samaya-prabaddhas). In the second nisus (niṣeka) of second instant (samaya), there are

1. For complete method and full details of PGL, as an appendix-N to the Labdhisāra project, at the end, ASG pp. 82 et seq.

5788 instant-effective-bonds (samaya-prabaddhas) owing to reduction of first nisus (niṣeka), 512 in the earlier mentioned 6300. In the third nisus (niṣeka) of the third instant there are 5308 instant-effective-bonds (samaya-prabaddhas) owing to reduction by first and second nisusus (niṣekas). In the fourth nisus (niṣeka) of fourth instant (samaya) there are 4860 instant effective-bonds (samaya-prabaddhas) owing to reduction of nisusus corresponding to first, second and third instants. In the fifth nisus (niṣeka) of the fifth instant, there are 4444 instant-effective-bonds (samaya-prabaddhas) owing to reduction of first, second, third and fourth nisusus (niṣekas). Similarly, in the sixth, etc., nisusus corresponding to sixth etc., instants, there happen to be 6300 instant-effective-bonds (samaya prabaddhas) as reduced by as many number of nisusus (niṣekas) as is the measure of number of terms (gaccha) less unity, counting from the first nisus (niṣeka)¹

Hence in the first geometric-regression (guṇahāni), there are geometric-regression (guṇahāni) times instant-effective-bond, i.e., 6300×8 . Now out of this, the absent-fluent (abhāva rūpa dravya) is first nisus, multiplied by geometric-regression (guṇahāni) as reduced by unity, i.e., 512 (8-1). The second nisus multiplied by geometric-regression as reduced by two is 480 (8-2). The third nisus multiplied geometric-regression as reduced by three is 448 (8-3). In this way, reducing through sequence, at the end the last nisus (niṣeka), 320, remains one.

In the second etc., nisusus (niṣekas) of these first, etc., rows, taking one as the first term, increasing it by one continuously, and adding their own common differences (cayas), there happens to be absent-fluent (abhāva dravya) which is first nisus (niṣeka) as multiplied by series summed up once having number of terms (gaccha) which is geometric-regression (guṇahāni) as reduced by unity. Implication of this is that whatever is the first geometric-regression (guṇahāni) inform of eight rows from below or bottom, and whatever nisusus (niṣekas) get reduced in its second, etc., rows, the negative fit for being subtracted in the form of its measure, that negative quantity when that added, there happens to be instant-effective-bond (samaya-prabaddha) multiplied by geometric-regression (guṇahāni). This is the sum of the rows which are geometric-regression (guṇahāni) in measure. The reason is that the sum of the first row is equal to an instant-effective-bond (samaya-prabaddha). On adding the negative quantity, the sum of other rows also becomes equal to it. In this way geometric-regression (guṇahāni) is 8, and its multiple is the instant-effective-bond, 6300. Now we find out how much negative quantity is to be subtracted :-

First nisus (niṣeka) multiplied by a geometric-regression (guṇahāni) as reduced by unity is 512 (8-1). Similarly up to the end, 512 (8-7). thus in the rows which are geometric-regression (guṇahāni) amount in number, there happens to reduce nisus (niṣeka), one by one. The last nisus (niṣeka) remain in all rows. Hence, here whatever their own common-differences (cayas) get reduced from the first nisus (niṣeka) in the second, etc., nisusus (niṣekas) on adding them all nisusus (niṣekas) become equal to the first nisus (niṣeka). For example :

512 (8-1)

512 (8-2)

512 (8-3)

512 (8-4)

512 (8-5)

512 (8-6)

512 (8-7)

1. These methods described in the ASG, and also in details in the GKK, vol.1. p. 402-427, not only thorough numerical but also through gauge-symbolism (artha-saṁdr̥ṣṭi). Greater details of the method is also given, cf. ibid., pp. 270-309.

The sum of there is $512 \left[\frac{8}{2}, \frac{8}{1} - 1 \right]$,

as per rule of summation of an arithmetical progression

In this, the absent-fluent (abhāva-dravya) is to be calculated, as first nīsus (niṣeka) i.e., 512, is full. No nīsus has been reduced from first row. In the second row, one first nīsus (niṣeka) has been reduced or subtracted. In it no common-difference (caya) has been added. In the third row, first and second nīsus (niṣekas) are reduced. In its second nīsus (niṣeka), 480, adding one common difference 32, gives 512. In the third row, first, second and third nīsus are absent. Here in second nīsus, 480, one common difference (caya), 32, and in third nīsus (niṣeka), 448 adding two common differences, 32 and 32, we get 512. In this way, up to the last nīsus (niṣeka), on adding one common difference (caya) more successively, we get 512. The sum of all these happen to be common-difference (caya) as multiplied by two times summation (saṅkalana) of number of terms (gaccha) as reduced by two. The measure of those common-differences (cayas) is like this :

$$32 \times 31$$

$$32 \times 15$$

$$32 \times 6$$

$$32 \times 3$$

$$32 \times 1$$

On adding this, we get as per summation rule

$$32 \left(\frac{8-2}{3} \right) \left(\frac{8-1}{2} \right) \left(\frac{8}{1} \right). \text{ This is to be subtracted from the earlier absent-fluent (abhāva-dravya).}$$

This has been explained in detail by Tōḍaramala in ASG, pp. 82, et. seq., which has been translated into English in PGL as an appendix. Direct implication or purpose is that whatever is to be subtracted from 6300×8 is the remainder obtained on subtracting 32×56 from 512×28 . On subtracting this, the sum of first geometric regression (guṇahāni) is obtained. Similarly the fluent (dravya) of second nīsus (niṣeka) of second geometric regression (guṇahāni) is less by 256 than that former amount. Similarly, knowing the measure of the reduction as that of the first geometric-regression (guṇahāni), adding in it, we get the total fluent (dravya) of second geometric regression (guṇahāni) as 3100×8 . Just as in the first geometric regression (guṇahāni), the first fluent (dravya) of first geometric regression (guṇahāni) is 512 and common-difference (caya) is 32, similarly, in the second regression these are half of them respectively as 256 and 16. Hence subtracting 16×56 from 256×28 , and subtracting the remainder from 3100×8 , we get the sum of the second geometric-regression (guṇahāni). Similarly, the sums of all the above or upper geometric-regression (guṇahāni) are to be known, eg., $(6300)(8)$, $(3100)(8)$, $(1500)(8)$, $(700)(8)$, $(100)(8)$.

Here on adding the negative $100(8)$ in the sum of one geometric-regression (guṇahāni) and on dividing by two, the sums become :-

$$(3200)(8)(2), (1600)(8)(2), (800)(8)(2), (400)(8)(2), (200)(8)(2), (100)(8)(2).$$

As per mathematical formula, on multiplying the last sum (3200)(8)(2), by 2 we get (6400)(8)(2). On subtracting the initial sum (ādi-dhana), (100)(8)(2) from it, we get the sum of all geometric-regressions (guṇahāni) as (6300)(8)(2). As stated earlier, the negative of the second, etc., geometric-regressions (guṇahāni) also becomes successively half and half. This process has been given in full details in GJK, I, Kārṇāṭa Vṛtti and Sanskrit commentary pp. 413, et. seq. as well as by Tōḍaramala in ASG, pp. 82 et. seq. That is how the state (sattva) fluent (dravya) is calculated to be slightly less one and half geometric-regression (guṇahāni) times the instant-effective-bond (samaya-prabaddha), symbolized as

sa 12 -

Verse 352. Thirty three consonants (vyañjana), twenty seven vowel sounds [i.e. slight (hr̥sva), long (dīrgha), prolonged (pluta) of each of the nine vowels] and four mixed sounds (yogavāha), [i.e. anusvāra, visarga, guttural, and the aspirate] are the sixty-four root-letters (mūla-varṇas) or alphabets.¹

Verse 353. Having distributed the sixty-four letters and placing two [on every one], then on mutual multiplication and subtracting unity from the product, the [total number of] letters [and words] of scriptural knowledge are produced.²

Verse 354. One, eight, four, four, six, seven, four, four, zero, seven, three, seven, zero, nine, five, five, one, six, one and five, is the total number of letters and their unrepeated combinations³

Note: 1. In the above verses, a very important historical set of combinations has been given, which is

2⁶⁴-1. This is also written as 2²⁶ or as 1, 84, 46, 74, 40, 73, 70, 95, 51, 615 written in right hand wise style of place value notation.

2. From verse 316, it is important to note that various types of increase have been described, denoted by u or urvaṅka, and figures 4, 5, 6, 7, 8, denoting infinite part, innumerable part, numerable part, numerable

increase	frequency	
8	1	
7	2	
6	6	or 2 (2 + 1)
5	18	or 2 (2 + 1) ²
4	54	or 2 (2 + 1) ³
u	162	or 2 (2 + 1) ⁴

1. "tettisa venjanaim settavisa soaa taha bhaniya / cattari ya jogavaha causat thi mulavennao //352//"

2. "cauṣatthi padam viraliya dugam ca dauna sangunam kicca / ruunam a kue puna sudananassakkhara honti //353//"

3. "ekattha ca ca ya chassttayam ca ca ya sunnasattatiyasatta / sunnam nava pana panca ya ekkam chakkekkago yapanagam ca //354//"

Cf. GJK (E), pp. 200-202. Cf. also GJK, II, PP. 581-590 for full details. Cf. Needham, Jand Ling, W. (1959, BB), p. 139, for 364-1 about gainsplaced on chessboard. Symbolism of these is equally important. In the above context, cf. Gelb, I.J., (1974, BB), pp. X, XI, 184-189. Cf. also Shamsastry, (1977 BB).

times, innumerable times and infinite times increase.¹ Their combinations have been calculated in case of knowledge to be as follows, totalling to 243.²

The increase may be [continuously constant (dhruva)] or [discontinuously variable] (adhruva). The use of the dhruva-hāra technique is also worthy of attention.³ It is associated with geometric-progression with a fractional common ratio. The decrease and increase, in a similar way have also been described for the complex (leśyā).⁴

The commentary of verse 560 describe five types of cyclic-change (parivartana) : fluent-cyclic change (dravya-parivartana), quarter-cyclic change (kṣetra-parivartana), time-cyclic change (kāla parivartana), incarnation-cyclic change (bhava-parivartana) and phase-cyclic change (bhāva parivartana). Thi first type is worthy of attention in so far as the following symbolism is concerned:⁵

0 0 +	0 0 +	0 0 1	0 0 +	0 0 +	0 0 1
++ 0	++ 0	++ 1	++ 0	++ 0	++ 1
++ 1	++ 1	++ 0	++ 1	++ 1	++ 0
1 1 +	1 1 +	1 1 0	1 1 +	1 1 +	1 1 0

Verses 593 et seq., describe twenty-three types of variforms (vargaṇās) of matter or fusion-fission (pudgala) in the JTP commentary in details, alongwith symbolism.⁶ Verses 609, et seq. describe in detail the rules for combination of ultimate particles (paramāṇus).⁷ For description through abbreviations and symbolism GJK, II, may be referred.⁸

1. "urvaṅkaḥ caturaṅkaḥ pañca ṣaṭ saptaṅkaḥ aṣṭāṅkaśca /
ṣaḍvṛddhīnām sañjñā kramaśaḥ saṁdr̥ṣṭi karaṇārthaṁ //325//"
or
"uvvaṅkaṁ cauraṅkaṁ pañachassattaṅka aṭṭhaṅkaṁ ca /
chavvaḍḍiṇaṁ saññā kamaro saṁdiṭṭhi karaṇaṭṭhaṁ //325//"
Cf. GJK (E), p. 187. Cf. also GJK, II, pp. 530, et seq.
2. "savvasamāso niyamā rūvāhiya kaṇḍayassa vaggassa /
bindassa ya saṁvaggo hoditti jñehim ñiddiṭṭhaṁ //330//"
Cf. GJK (E), p. 192. Cf. also GJK, II, pp. 555-556, and the following for details.
3. Cf. GJK (E), vv. 384 et seq., pp. 211, et seq. Cf. also GJK, II, vv. 384 et seq., pp. 628 et seq., for details.
4. "tivvatamā tivvatarā tivvā asuhā suhā tahā mandā /
mandatarā mandatamā chaṭṭhāṇagayā hu patteyaṁ //500//
Cf. GJK (E), v. 500, pp. 251-252. Cf. also GJK, II, pp. 701-702.
5. "atraghīṭasya saṁdr̥ṣṭiḥ sūnyaṁ miśrasya haṁsapadaṁ,
gr̥hīṭasyāṅkaḥ, anantavārasya dvicāraḥ / tat saṁdr̥ṣṭiḥ"
See the above for symbolism. Further explanation is as
"agahida missaṁ gahidaṁ missamagohidaṁ tahevagahidaṁ ca /
missaṁ gahidamagahidaṁ gahidaṁ missaṁ agahidaṁ ca //2//
Cf. GJK, II, p. 792 for details. Cf. also GJK (E), pp. 281-282.
6. Cf. GJK, II, pp. 822 et seq.
7. Cf. GJK, II, pp. 855 et seq.
8. Cf. GJK, II, pp. 950-1071.

Verses 148-150 of GKK describe the following types of expressions and equations¹: $1, N, N^2$ on summation give $1+N+N^2$.

$$1+N+N^2 + N (1+N+N^2) + N^2 (1+N+N^2) = (1+N+N^2)^2$$

Then

$$(1+N+N^2)^2 + N (1+N+N^2)^2 + N^2 (1+N+N^2)^2 = (1+N+N^2)^3$$

Verses 192-195 describes distribution of functional fluent (karma dravya) into eight types of functionals (karmas):²

B is the set of innumerate instant-effective-bonds (samaya-prabaddhas)

pathos	charm	knowledge screening	vision screening	interfering	inheriting	genetic-coding	age
$\frac{8B}{9 \times 8}$	$\frac{8B}{9 \times 8}$	$\frac{8B}{9 \times 8}$	$\frac{8B}{9 \times 8}$	$\frac{8B}{9 \times 8}$	$\frac{8B}{9 \times 8}$	$\frac{8B}{9 \times 8}$	$\frac{8B}{9 \times 8}$
add	add	add	add	add	add	add	add
$\frac{8B}{9^2}$	$\frac{8B}{9^3}$	$\frac{8B}{9^4 \times 3}$	$\frac{8B}{9^4 \times 3}$	$\frac{8B}{9^4 \times 3}$	$\frac{8B}{9^5 \times 2}$	$\frac{8B}{9^5 \times 2}$	$\frac{8}{9^5}$

Volition-stations are of three types : birth (upapāda), mono-ended-increasing (ekāntānuvṛddhi), and transform (pariṇāma). Each of them is of 14 kinds according to control stations (guṇasthānas). Each one is again of three types : common, minimal and maximal.³

Now the structure of volition-station (yoga-sthāna) has been detailed in verses 223-229. They form geometric regressions with the same rules of manipulation,⁴ as stated earlier.

1. "āṅgabhāgo thovo nāmāgode samo tado ahiyo /
ghāditiyeve ya tatto mohe tatto tado tadiye //192//"
"suhadukkhaṇimittādo bahuṇijjaragotti veyanīyassa /
savvehimto bahugaṇṇ davvaṇṇ hodiṇṇ niddiṭṭhaṇṇ //193//"
"sesāṇaṇṇ payaḍḍiṇaṇṇ ṭhidi paḍibhāgeṇa hodi davvaṇṇ tu /
āvali asaṇkhabhāgo paḍibhāgo hodi ṇiyameṇa //194//"
Cf. GKK (E), I, pp. 80-83. Cf also GKK, I, pp. 159-179.
2. "bahubhāge sama bhāgo aṭṭhaṇṇaṇṇ hodi ekka bhāgaṇṇhi /
uttakamo tatthavi bahubhāgo bahugassa deo du //195//"
Cf. GJK (E), I, pp. 107-109. Cf. also GKK, I, pp. 217-221.
Here 9 denotes the innumerable part of a trail (āvali) instant-set. B denots innumerate instant-effective-bonds (asaṇkhyāta-samaya-prabaddhas).
3. Cf. GJK (E), I, p. 127, v. 218.
4. "avibhāga paḍicchedo vaggo puṇa vaggaṇa ya phaddhayagaṇṇ /
guṇahāṇiye ya jāṇe ṭhāṇaṇṇ paḍi hodi ṇiyameṇa //223//"
Cf. GJK (E), I, p. 130. Cf. also GKK, I, pp. 266-267.

Verse 223. Indivisible-corresponding-sections (avibhāgi-praticchedas) of increase, [make] a variate (varga). Variates (vargas) [make] a variform (vargaṇā). Variforms (vargaṇās) [make] a super-variform (spardhaka). And super variforms (spardhakas) [make] a geometric-regression (guṇahāni). Know that every volition (yoga), division is necessarily composed of these.

Verse 224. In one volition (yoga) division, the number of geometric regressions (guṇahāni) is an innumerable part of a pit (palya). They are also called a set of various-geometric-regression (nānā-guṇahāni). And the super variforms (spardhakas) in one geometric-regression (guṇahāni) [are] an innumerate part of the universe-line (jaga-śreṇī).¹

Verse 225. And the number of variforms (vargaṇās) for each super-variforms (spardhakas) is the same as given [before, i.e. an innumerate part of universe-line (jaga-śreṇī)]. And in each variform (vargaṇā), the variates (vargas) are innumerate times the universe-square (jaga-pratara).²

Verse 226. And in each variate (varga), indivisible-corresponding-sections are innumerate universe (loka) [space-points]. The measure of the indivisible is to be known as minimal increase of space-points (pradeśas).³

Verse 227. In one volition-station (yoga-sthāna), [the number of all] the supervariforms (spardhakas), variforms (vargaṇās), and [the length (āyāma)] of geometric-regression (guṇahāni) in the [innumerate] space-units (pradeśas) [of soul], [is each] an innumerate part of universe-line (jaga-śreṇī). And the [total number of] indivisible-corresponding-sections [of increase] are the innumerate times the universe space points (loka-pradeśas).⁴

Verse 228. All [i.e. innumerate] points (pradeśas) of one soul (jīva) divided by one and half geometric-regression (guṇahāni) [give] the first [variform (vargaṇā) of the first super variform (spardhaka) of the first geometric-regression (guṇahāni)]. Then the common-difference (uttara) being subtracted [at each step we get the succeeding variforms (vargaṇās)]. Each geometric-regression (guṇahāni) is successively half of its immediately preceding one.⁵

Verse 229. The number of supervariforms (spardhakas) [of a geometric regression (guṇahāni)] multiplied by the minimum [variate (varga)] is the first variform (vargaṇā) of that [geometric-regression (guṇahāni)]. The variates (vargas) of the second, etc., variforms (vargaṇās) are increased successively by one indivisible-corresponding-section (avibhāgi-praticcheda), [being added to the variate (varga) immediately preceding].⁶

1. "pallāsamkhejjadimā guṇahāṇisala havanti igithāne /
guṇahāṇiphaḍḍhayāo asaṃkhabhāgaṃ tu sedḍhiye //224//
Cf. GJK (E), I, p. 130. Cf. also GKK, I, p. 267.
2. "phaddhayage ekkekke vaggāṇa saṃkhā hu tattiyālāvā /
ekkekka vaggāṇāe asaṃkhapadarā hu vaggāo //225//
Cf. GJK (E), I, p. 130. Cf. also GKK, I, p. 267.
3. "ekkekke puṇa vagge asaṃkhaloyā havanti avibhāgā /
avibhāgassa pamāṇaṃ jahannaḍḍhī padesāṇaṃ //226//
Cf. GJK (E), I, p. 131. Cf. also GKK, I, p. 268.
4. "igithāṇaphaḍḍhayāo vaggāṇasaṃkhā padesaguṇahāṇi /
sedḍhasaṃkhejjadimā asaṃkhalogā hu avibhāgā //227//
Cf. GJK (E), I, p. 131. Cf. also GKK, I, p. 268-270.
5. "savve jīvapadese divaddha guṇahāṇi bhājide paḍhamā /
uvarim uttara hīṇaṃ guṇahāṇīm paḍi tadaddhakamaṇi //228//
Cf. GJK (E), I, p. 132. Cf. also GKK, I, p. 271-273.
6. "phaḍḍhaya saṃkhāhi guṇaṃ jahannaḍḍhayaṃ tu tattha tatthādi /
bidiyādivaggāṇaṃ vaggā avibhāga ahiyakamā //229//
Cf. GJK (E), I, p. 132-133. Cf. also GKK, I, pp. 274-333, for details. Such a classification of karma-structure is as ancient as the Digambara Jaina School itself, marking its antiquity with the ford-founder Vardhamāna Mahāvīra and the terse learning might have inspired recourse to an early alphabetic and symbolic approach. This requires research.

The above may be shown through the following two tables, the first showing relations between the substructures of a volition station (yoga sthāna) :-

Name	indivisible-corresponding sections (avibhāgī- raticchedas)	variate (varga)	variform (vargaṇā)	super-varioform (spardhaka)	geometric-regression (guṇahāni)	volition-station (yoga-sthāna)
gauge symbolism (artha-saṁdr̥ṣṭi)	$\equiv a$	$= a$	\overline{a}	$\overline{a} a$	pa $a a$	1
numerical symbolism (aṅka-saṁdr̥ṣṭi)	$v a$	256	4	9	5	1

In the above a is innumerate, pa is palya, $\overline{}$ is universe-line, $=$ is universe-square, \equiv is universe-cube or universe itself..

The second table shows symbolism of the sub structures of volition (yoga) established in the innumerate points amounting to universe-space-points (loka-pradēśas) of a bios :-

Name	fluent (dravya)	life-time (sthiti)	geometric regression (guṇahāni)	various-geometric regression (nānā guṇahāni)	nisus divisor (niṣeka-hāra) or two geometric regre. (do-guṇahāni)	mutual-product (yoga-sthāna) set (anyonā-bhyasta rāśi)
gauge symbolism (artha-saṁdr̥ṣṭi)	\equiv	\overline{a}	$\overline{a} a$	$\overline{a} pa$ $a a$	$\overline{a} 2$ $a a$	pa a
numerical symbolism (aṅka-saṁdr̥ṣṭi)	3100	40	8	5	16	32

The above numerical symbolism (aṅka saṁdr̥ṣṭi) may be fruther explained by the following figure, the formulas being the same here.

1st	2nd	3rd	4th	5th	geometric-regression (guṇahāni)
256	128	64	32	16	The total space-points (pradēśas) of a bios is 3100. Here $32 = 2^5$. Hence last geometric regression is $3100 \div (2^5 - 1) = 100$. The remaining portion is self-explanatory, except the measure of the first supervariform (spardhaka) which is
240	120	60	30	15	
224	112	56	28	14	
208	104	52	26	13	
192	96	48	24	12	
176	88	44	22	11	
160	80	40	20	10	
144	72	36	18	9	
1600	800	400	200	100	Total

$$3100 \div 12 \frac{7}{64} = 256. \text{ For details cf. GKK,}$$

I, pp. 271 et seq.

From pp. 274 to 333, in GKK, I, description of adding of all indivisible corresponding- sections (avibhāgī praticchedas) of all volitions (yogas) of minimal of all volition-station (yoga-sthāna) is given through a method which is historically very important.

5. EXPOSITION (VRTTI) AND COMMENTARY OF THE LABDHIŚĀRA AND THEIR AUTHORS

At present only one exposition (Vṛtti) of the Labdhisāra upto the chapter on the character-charm-subsidence (cāritra-moha-upaśamanā). The exposition (Vṛtti) begins with the two following hymns of praise:¹

"jayantvanvahamarhantaḥ siddhāḥ sūryupadeśakāḥ /
sādhavo bhavyalokasya śaraṇottamamaṅgalam //1//
śrīnāgāryatanū jātaśānti nāthoparodhataḥ /
vṛttirbhavya prabodhāya labdhisārasya kathyate //2//

It is not clear in the above as to who is the author of this exposition in Sanskrit. The colophon available at the end of the GKK, shows that the exposition (Vṛtti) of the GJK and GKK was written in accordance with the Kaṇṭhakīya exposition (Vṛtti) by some preceptor Nemicandra, the disciple of Bhaṭṭāraka Prabhācandra who was disciple of Bhaṭṭāraka Jñānabhūṣaṇa,² at Surat, (1600-1616 Vikrama era). He gave it the name, "Jīvatattva Pradīpikā". The exposition (Vṛtti) in Kaṇṭhikī, compiled by Keśava Varṇī³ (c. 14th century; A.D.), is limited upto the GJK and GKK. On examining both the expositions, the following becomes clear :

1. At the end of every chapter of GJK and GKK, the closing sentence appears as

"ityācārya śrī Nemicandra Siddhānta cakravartiviracitāyām

Gommaṣasārāparanāma pañcasaṅgraha Vṛttau tattva-dīpikākhyāyām.....//

Where as, in case of the Labdhisāra, the closing words are

"iti kṣāyika samyaktva prarūpaṇam samāptam /

iti desasaṁyama labdhi vidhāna adhikāraḥ // etc."

2. From the above examples it is clear that the denomination, "Tattva-dīpikā" is that of the vṛtti of the GKK and not that of the Labdhisāra. Some quotations are available in the exposition of the Labdhisāra, from which it appears that before the exposition there were some notes at the time of the compilation of the exposition.⁴

At another place, the expositor indicates that he described in accordance with the explanation of 33 comparabilities (alpa-bahutva) syllables possible at the occasion of the annihilation of vision-charm (darśana-moha).⁵ Here it could not be clear as to whether the note or the explanation is implied.

At the Senagaṇa temple, Nagpur, a manuscript of the commentary of GKK is available⁶, which contains a different colophon from that of the printed GKK (o), and is as follows :

"mūlasaṅghe mahāsādhū Laxmīcandro yatīśvaraḥ /

tasya pādasya Virendu vibudhā viśvavedinaḥ //

tadanvaye dayāmbhodhi Jñānabhūṣo guṇākaraḥ /

tīkām hi kaṇṭakāṇḍasya cakre Sumatikīrtiyuk //3//"

In this colophon, the compiler of the commentary of the GKK has been said to be Jñānabhūṣaṇa in cooperation with Sumatikīrti, having given the names of Laxmīcandra, Virendu and Jñānabhūṣaṇa Bhaṭṭārakas. Whereas, in the colophon at the end of the printed GKK (o), the disciple tradition is inform

1. Cf. LDS. p. 1.

2. Bhaṭṭāraka Jñānabhūṣaṇa, belonged to the school of original organizer Kundakundācārya, Vide V. Jahrapurkar, Bhaṭṭāraka Sampradaya, pp. 201-202.

3. Keśavavarṇī was the disciple of Abhayacandra Siddhānta-Cakravartī.

4. "evaṁ darśana mohakṣapaṇa ṭippaṇam /"

5. "evaṁ darśanamohakṣapaṇāvasare sambhavadalpabahutvā padāni
trayastrīṁśatsaṁkhyāni pravacanānusāreṇa vyākhyātāni /"

6. Bhaṭṭāraka Sampradāya, op. cit., p. 183.

of Jñānabhūṣaṇa, Prabhācandra, and Nemicandra have been given, and then Nemicandra has been related as compiler of exposition (vṛtti) of the GJK and GKK. It has also been stated that at the request of King Mallibhūpāla of Karṇāṭaka country, Nemicandra took education from Traividya Municandra. He was then insisted by Dharmacandra and Abhayacandra Bhaṭṭārakas, as well as by Varṇī Lālā, etc. Accordingly, at the Citrakūṭa Jaina temple built by Jinadāsa in Gujarat, he compiled the above mentioned exposition. Khandelavāla Kulatilaka Sāha Sāṅgā and Sāha Sahesa were also instrumental in this work. Nemicandra wrote this exposition in cooperation with Traividya Viśālakīrti, (vide GJK, GKK (o)).

There are two colophons on whose basis the following facts could be concluded :

1. There are two commentaries of the GKK, one of them is compiled by Jñānabhūṣaṇa Bhaṭṭāraka and the other is compiled by his disciple Nemicandra.
2. Nemicandra learnt the principle from Traividya Municandra of Karṇāṭaka. He compiled his commentary or exposition (vṛtti) with the cooperation of Bhaṭṭāraka Traividya Viśālakīrti of Kārṇjā Balātkāra gaṇapaṭṭa.
3. This exposition by Nemicandra was corrected and then written by Abhayacandra. He was classmate of Bhaṭṭāraka Viracandra who was predecessor of Bhaṭṭāraka Jñānabhūṣaṇa, and that he was the disciple of Bhaṭṭāraka Laxmicandra. However the name of Nemicandra does not appear in the Bhaṭṭāraka tradition of Balātkāra gaṇa, Sūrata (surat) paṭṭa.

Thus it is an important information that in the compilation of the exposition (vṛtti) of GJK and GKK, the Bhaṭṭārakas of Kārṇjā, Surat, and Karṇāṭaka mutually cooperated for propagation of the serene knowledge. It also appears that the second commentary of the GKK mentioned earlier, was compiled with mutual cooperation of the Bhaṭṭārakas of Surat and Karṇāṭaka, because in its colophon the Bhaṭṭāraka Sumatikīrti possibly belonged to the Karṇāṭaka state. The name of Dharmacandra Bhaṭṭāraka appears in the exposition (vṛtti) of the GJK, GKK, belonged to Balātkāra gaṇa Kārṇjā paṭṭa, as is known from the study of the Kārṇjā branch of this gaṇa.

Viśālakīrti Bhaṭṭāraka appears to be author of the Tattva-jñāna taraṅgiṇī, and he appears to belong to Surat branch of the Balātkāra gaṇa. Hence it appears that his grand disciple (praśiṣya) Nemicandra might have compiled the exposition (vṛtti) of the GJK-GKK according to the exposition of the Karṇāṭa Vṛtti.¹

However, it is still controversial as to who was the author of the Sanskrit exposition of the Labdhisāra² At present, Nemicandra is regarded as the author of the exposition, upto the chapter on the subsidence of the character charm (cāritra-moha-upaśāmanā). There is no Sanskrit commentary on the portion on annihilation of character-charm (cāritra-moha Kṣapaṇā), as also mentioned by the Dhūṇḍhārī commentator, Ṭoḍaramala of Jaipur.³ However there is an independent work known as The Kṣapaṇāsāra by Mādhavacandra Traividya in 1260 of the Vikrama era of 1125 of the Śaka era. This is in Sanskrit.⁴

Now we pass on to the single handed commentary known as the Samyak jñāna candrikā ṭikā by Ṭoḍaramala on all the above works GJK, GKK and LDS (including the Kṣapaṇāsāra) by Nemicandra Siddhāntacakravartī. He is also called ācārya-kalpa for the deep knowledge he possessed and for his service to the awakening of the community and the society.⁴ For compilation of his Samyak jñānacandrikā ṭikā of GJK and GKK, as a monumental piece of the most useful commentary, he had before him the Jiva-tattva Pradīpikā exposition in Sanskrit of Nemicandra. For writing the commentary of the LDS, he

1. Cf. LDS, pp. 30-32. Cf. also K. C. Shastri, vol. 1, 1975, pp. 463-482 for further details.

2. In the LDS, intro., the editor feels that it might also be the out come of a team work by certain Bhaṭṭārakas. Cf., Jain, L.C. (July, 1977), pp. 10-23.

3. On the basis of this Ṭoḍaramala compiled the Dhūṇḍhārī commentary on the Kṣapaṇāsāra or the chapter on annihilation of character-charm (cāritra moha-kṣapaṇā).

4. 68. For full details of life and works of Ṭoḍaramala, vide Bharilla, H.C., Paṇḍita Ṭoḍaramala : Vyaktitva aura kartṛtva, (Thesis for Ph. D., Indore University), Jaipur, 1973.

had before him the anonymous Sanskrit exposition, incomplete as mentioned earlier in so far as the chapter on annihilation of character-charm (cāritra-moha kṣapaṇā) is concerned. He had also before him the independent text on the Kṣapaṇāsāra by Mādhavacandra Traividya. With the help of these two he compiled the Samyak jñāncandrikā exposition of the LDS including that of the Kṣapaṇāsāra. He wrote detailed introductions to them. He separated the mathematical portions and gave his independent expositions of the mathematics in a separate chapter, known as the Artha Saṁdr̥ṣṭi Adhikāra on the Labdhisāra and the Kṣapaṇāsāra. This has been exposed in this project in ancient and working symbolism and terminology. He had done the same with regard to the Samyak jñāna candrikā commentary of the GJK and GKK. In this project there have also been exposed in English, as prelude to the gauge symbolism of the LDS. That of the Kṣapaṇāsāra has been exposed in this project as postlude. Without this much exposition, the context of the mathematical, scientific, set-theoretic approach and the system-theretic approach to the LDS, the main theme of the LDS, might have still remained unexplained and very difficult to understand it deeply.

The independent text, The Kṣapaṇāsāra of Mādhavacandra Traividya is available in some śāstrabhaṇḍāra of Delhi Jaina temples of the Digambaras. It needs a systematic research. Toḍaramala has more or less followed the anonymous LDS Sanskrit commentary as well as this text, explaining the implications at some places. He has expressed at various places his inability to understand the portions and invited the attention of forth coming scholars to explain the meaning. He had finished the commentary of the GJK and the GKK on 5th bright half of Māgha in 1818 of the Vikrama era, as is evident from the colophon of the GJK-GKK. He might have finished his commentary of the LDS round about this period.

It may be noted that the original source text of the Labdhisāra and the Kṣapaṇāsāra of Nemicandra Siddhānta cakravartī was the Kasāyapāhuḍa text which was compiled by Guṇadharācārya in 233 verses, on which was written the cūrṇi verses by Yativṛṣabhācārya, and further on which the Jayadhavalā commentary was written in 60000 verses by Vīrasena and by Jinasena after his death. One third part of this is from its tenth chapter to fifteenth chapter which was summarized in 653 verses as the Labdhisāra and the Kṣapaṇāsāra by Nemicandra Siddhānta cakravartī, a task which must have been a hard task in itself.

6. SCIENTIFIC THOUGHT EVIDENT IN THE LABDHSĀRA

From what has been described earlier, the mathematical contents bear testimony to evolution of a scientific spirit from the period of the source material (c. 1st century A.D.) and even from still remoter period, in India, specifically in the Jaina School of Mathematics, where the Karma theory became predominant, flourishing in various schools of thought. The Digambara Jaina School took the lead in its mathematical exposition, not only through semantics but also through symbolism.

According to Russell, "Most sciences, at their inception, have been connected with some form of false belief, which gave them a fictitious value. Astronomy was connected with astrology, chemistry with alchemy. Mathematics was associated with a more refined type of error. Mathematical knowledge appeared to be certain, exact, and applicable to the real world; moreover it was obtained by mere thinking, without the need of observation..... This form of philosophy begins with Pythagoras."¹

At this threshold, we pause to give a thought to the evolution of the theory of Karma as a naive scientific thought in India with Vardhamāna Mahāvīra. We wish to go through, in brief, the underlying concepts, methods and procedures in the vast literature available specifically with the Digambara Jaina School. No doubt, these might have been intermingled with astrology, alchemy, metaphysics, and so on, through various passages, yet the precision in the Digambara Jaina School draws special attention owing to the following descriptions which may be compared with their analogous set up in modern science. [Vide Volodarski, A.I., 1968, 1971, 1975, 1983, 1985 BR, and other papers in BR in "Exact Sciences in the Karma Antiquity" for a brief survey].

1. Russell, B., History of western Philosophy (1957,BB).p.53 Cf. also Berka, K. (1977, BR).

A. SETS (RĀŚIS)

In the Labdhisāra the terms numerable (saṁkhyeya), innumerable (asaṁkhyeya) and infinite (ananta) appear as number-measure (saṁkhyā-pramāṇa). These are minimal (jaghanya), intermediate (madhyama) and maximal (utkrṣṭa). Terms like pit (palya) and sea (sāgara) are sets of instants and universe (loka) is a set of points (pradesas), which are classified under the simile measure (upamā-pramāṇa).¹

Instant (samaya) is indivisible and so also point (pradeśa), which are the fundamental principle-theoretic units. Then indivisible-corresponding section (avibhāgi praticcheda) forms the fundamental unit for objects like knowledge (jñāna), operators like volition (yoga), and so on. Other sets of instants are the trail (āvali), inter muhūrta (antar-muhūrta), aeon (kalpa), and so on. Set of ultimate-particles-bound at an instant is instant-effective-bond (samaya-prabaddha). Then set of souls (jīvas), and so on, also have been applied.

We have seen in the source material and the GJK, GKK and various commentaries, how these sets have been handled in other that paradoxes or antinomies may not arise. Their topology have been considered through comparability as well as divergent sequences as detailed by Jain,² for their analytical methods as well as history. The role of sets has its own story.³

B. STRUCTURE (YANTRA)

The trend of presentation of the Karma theory from simple to complex form may be assessed in studies from GJK to GKK and then to LDS and KNS. The structure of the Karma theory appears as a totality, with laws of its own. This structure contains a system of operations (karaṇas) whose combinations transform one object or element into another. It has also a self-regulatory property. These three are the characteristic properties of a structure. [Vide papers by Gershenowitz., H. (1983, BR in the "Exac Esiences in the Karma Antiquity") for comparison].

In the Labdhisāra, the dynamical theory of karma appears as mathematical structures through numerical, algebraic and geometric figures. The structures are thus represented through various types of matrices, for example the state-matrix is a triangular-matrix (trikoṇa yantra), which is ultimately to be reduced to a null matrix of karma-bound matter-particles through various passages of transformations.⁴

It may also be noted that the organism-structure has been shown to consist of several sub-structures which comprise of the cosmological structure, linguistic structure, psychological structure and various others, ultimately having a constructive role to develop an organism in its capacity of the knowledge-set. Actually the aim is to attain ultimately the supreme existential set of indivisible-corresponding-sections of omniscience (kevala jñāna), which is the supreme construction set in the divergent sequences of various types of existential and constructive sets passing in the description of various stations (sthānas) all relevant to the development of an organismic knowledge.⁵

1. Cf Rucker, R. (1982, BB), chapters 1 and 2 on infinity" and on "all the numbers".

2. Cf. Jain, L.C., (1973, 1976, 1977, BR).

3. The abstract set theory was developed in the nineteenth and twentieth centuries by Bolzano (1781-1848), Cantor (1845-1918), Frege (1848-1925). Antinonies were published by Russell and Bulari Forti, Heijencort and Richard. Various foundations were laid by Zermelo-Fraenkel, Von-Neumann-Bernays-Gödel Russell-Whitehead, Morse-Kelley and Quine, and so on. (cf. Mouton, 1972, pp. 1-34). The Digambara Jaina School applied the set theory to their Karma theory, through various foundational means.

4. Cf. ASL. The karma structures have a great period of stability, as also of very low periods of life-time. These could be compared with modern set of atomic structure and molecular structure.

5. Structuralism, does not necessarily rule out, any considerations of history, genesis, functioning, and a subjects activities. "Any structure is always located at the intersection of a multiplicity of disparate disciplines, so that no general theory of structures can possibly escape the requirement that it be not simply multi-disciplinary but authenticary into disciplinary." cf. Mouton (1972, BB), p. 54, as observed by Jean Piaget.

C. SYSTEMS CONCEPTS

The technological method of information-processing and decision-making has made it possible to deal with various types of systems, their behaviour, transformations, controls, etc., similarly in the GJK, GKK and LDS, KNS, the karma system theory has been dealt with various types of way-ward-stations (mārgaṇā-sthānas) and control-stations (guṇa-sthānas).¹ As we have already seen that cause-effect relations have been maintained through āsrava, saṁvara, nirjarā which form inputs and out puts of the karma system. A stage reaches in the bios or organism, when it becomes a goal-seeking system, or a control-system when it plays the role of decision-making for attaining more and more of knowledge through various controls, as the above two types of stations.

The above theory of karma system was thus applied by the Jaina School to their own situations where scientific and management achievements were concerned.

D. SYMMETRY CONCEPTS

In the theory of elementary-particles, symmetry concepts have played a fundamental role, through group theory. Yang and Wigner spelt out that group theory lies in the basic postulate of quantum theory that the quantum states of a physical system form a linear manifold.² We have seen in the Digambar Jaina School, how various types of sets have been formed as quantum states, through indivisible-corresponding-sections, instants (samayas) and points (pradeśas) and the quanta of Yoga and Kaṣāya operators.

The four characteristic properties of bonding, state, rise, etc., as we have seen, lie in the four types of structures: configurations (prakṛtis), particle-numbers (pradeśa-rāśis), energy (anubhāga), and life-time (sthiti). Charges appear as unctuousness (snigdhata) and anti-unctuousness (rukṣatva), measured in quantum levels of integers, odd and even, from zero to infinity.³

Now one has to concentrate on the operations in the karma-theory, underwhich the above intrinsic properties change into one another of one type class, or remain invariant. The Digambara Jaina School had a very deep study of this type of symmetry-operations, and deal with various types of creation and annihilation of matter in bond associated with the above intrinsic and other properties, and knew well as to when they remained invariant or otherwise. At present it cannot be said, how far they were acquainted with the group-properties of such operators and transformations, but they knew as when, and what remained invariant or changed under what operation in the time-series of instants.⁴

E. SIGN AND SYMBOL (SAMDRṢṬI)

In considering cognitive process and communication process which are linked, reciprocal and interlocked, as well as semiotics the role of science has been given importance. In the Digambara Jain School Symbolism is seen developed as numerical (aṅka) algebraical (arth) and geometrical (ākāra)⁵ abbreviations have also been used. These are classified under saṁdrṣṭi or sahanānī. Although these appear in their full form developed in the period after 15th century A.D., traces of their existence appear in earlier

1. Cf. Kedrov. B.M. and Volodarsky, A.S. (1971, BR). Cf. also Systems Research Year books (Moscow), 1971, 1976-78, 1981, 1985 and various other papers mentioned in the BR.

2. Cf. Salam, .: (Mouton, 1972 BB), p. 71.

3. Cf. ASG, relevant topic.

4. This may well be seen in their topics on various types of transitions (sankramanas), and operations (karnas). Cf. LDS, vv. 49, et seq., and vv. 68, et seq.

5. Cf. ASG and ASL. Cf. also Dantzig, T., (1954, BB), chapter 5, on "symbols", for development of algebra in three stages: the rhetorical, the syncopated and the symbolic. Cf. Bhandarkar, A.S. (1954, BR) Das S.R. (1927, BR), Datta, B.B. (1936, 1929, 1931, BR), Heel, J.F. (1911 BR), Ganguly, S.K. (1932-33, BR); (1982 BR). and so on in the BR.

works. It is a problem of history of science to see as to when these were developed, because the earlier source material is so deep and complex in their Dhavalā and Jayadhavalā commentaries, that it does not appear possible that their teaching in the centuries after Vardhamāna Mahāvīra could have been without use of signs. The problem regardingly earlier script prior to the Brāhmī and the Kharoṣṭhī alphabets and numerals has also not been solved. Although late, some of the ancient artha-saṁdr̥ṣṭis, may give a connecting link about the source. [Vide Das gupta, C.C., 1950 BR in the "Exact Sciences in the Karma Antiquity"].

Thus a study into the semantics of the saṁdr̥ṣṭis essential from various aspects. From the language used in the commentaries of GJK, GKK, LDS and KNS, it appears that they become algorithmic owing to appearance of various signs and symbols in most of the sentences, for various operations to be performed along with mutual relations and their sequence.¹ Signs for the constellations (nakṣatras) also appear in the TPT, in words, along the Zodiac.² Place value system has not only been used in writing big numbers, but also in methodical process of subtraction and addition of terms into certain factors of an expression³

F. CYBERNETIC CONTENTS

Norbert Wiener⁴ appears to have started a unique study of control and communication in the animal and machine, published in the name of 'Cybernetics' (1948). The names of his predecessors, A.M. Ampere, Pascal, Leibnitz, Gauss, Faraday, Darwin, may be associated with the concept. Mathematical apparatus may be associated with the names of Cantor, Russell, Whitehead, Hilbert and Weyl. Then Shannon, Turing, Pitts, Rashevsky, Rosenbluth, Bush, Von Neumann, Goldstine, McCulloch, Lorente, Weaver, and so on, along with Wiener may also be associated with the endeavour.⁵

Cybernetics has turned to the study of self-regulating systems and to self-organizing systems for its insights. We wish to see how far the Karma theory contains these insights.

1. ALGORITHM

The Labdhisāra gives the solution to the problem of rising above the first-control-station (guṇasthāna) for a bios. The mathematical apparatus useful in this adventure is given in the following form:⁸⁸

- (a). Time series as lapsing of indivisible instants from ab-aeterno to ad-infinitum, with which events (paryayas) of various fluents (dravyas) correspond, for each of their controls (guṇas).
- (b). Triangular matrix with columns of arithmetico-geometric sequences of number of bound ultimate-particles and levels of their energy, respectively, denote the state (sattva) in the time-dependent picture as functional-life-time-structure (karma-sṭhiti-racanā).
- (c). Column-matrix or a multiple thereof, as instant-effective-bond, or its multiple in the similar arithmetico-geometric sequences, denote the input (āsrava) of karma-bound ultimate-particles.
- (d). Similarly, the row-matrix or a multiple thereof, as instant-effective-bond or its multiple, denote the output or the rise and disintegration (udaya and nirjarā).
- (e). The above along with time-lag (ābādhā) data, are described in 8 primary or 148 secondary types of functionals (karmas), according to rule.
- (f). The elements of the matrices are nisusus (niṣekas) associated with configurations (prakṛtis), number of matter-particles (pradeśa), energy (anubhāga) and life-time (sṭhiti). There is various types of creation and annihilation of these nisusus (niṣekas) owing to various operations according to a set of rules.

1. Cf. GJK, GKK, LDS, KNS and their commentaries, Cf. also ASG and ASL, cf. also Channabasappa, M.N. (1984, BR).

2. Cf. TPT, vol. 2, ch. 7, vv. 465-467, p. 737 (1951).

3. Cf. ASG, and ASL.

4. Wiener, N., (1948, or 1957 edn, BB).

5. Cf. ibid, introduction, pp. 7-39. Now cybernetics implies application of information theory to comparison of mechanical or electrical controls with biological equivalents.

2. OPERATIONS AND FEEDBACK

For attaining 13 control stations (guṇasthānas) above the first control-station, the volition (yoga) and affection (kaṣāya) operators associated with their mathematical representations are required to be regulated for effecting the state (sattva) matrix, of a bios.⁸⁹ It may be noted that configuration (prakṛti) and mass-number (pradeśa) bonding for an instant depend on volition (yoga) and the energy (anubhāga) and life-time (sthiti) bonding depend on affection (kaṣāya). The cycle of bonding, ever, has been going on through the first control alone, along the wheel of births and rebirths. In suitable circumstances, described in the text, rise above the first control, to attain the fourth control, for the first time, three operations, in mathematical representation of sequences of transforms (pariṇāmas), elevated through the efforts of the bios itself, creates a self-regulating process, for the acquirement target. Note that these three types of operations are to be fed back again and again according to the information gained from the out-put. These are

- a. the low tended operation (adhaḥ pravṛtta karaṇa)
- b. the unprecedented operation (apūrva karaṇa)
- c. the invariant operation (anivṛtti karaṇa).

The mathematical effects in the state-matrix (sattva-yantra) owing to the last two above causal operations are shown mathematically through the following in full details:

- a. geometric-series (guṇaśreṇī)
- b. geometric-transition (guṇasaṅkramaṇa)
- c. life-time-split-destruction (sthiti-kāṇḍaka-ghāta)
- d. energy-cutting (anubhāga-khāṇḍaka).

In the above arithmetical and geometrical sequences, down traction (apakarśaṇa) and injection (nikṣepaṇa) of ultimate-particles, as well as their minimal and maximal over-installation (atisthāpaṇa), and other processes happen to be in the state-matrix (sattva-yantra). These are all timed and well-defined through comparability (alpabahutva).

To name other operations etc., they are:

- a. interval operation (antara-karaṇa)
- b. life-time-bond and energy-bond termination or regression (sthiti-bandha, anubhāga-bandha-apasarāṇa)
- c. configuration-bond termination or regression (prakṛti bandha-apasarāṇa)
- d. six-stationed-cas cade increase (ṣaṭ sthāna patita-vṛddhi)
- e. order-operation (krama-karaṇa)
- f. partial-destruction-operation (deśa-ghāti-karaṇa)
- g. subsidence-operation (upaśama-karaṇa)

The KNS describes some more operations, as tract-operation (krṣṭi-karaṇa), etc.

The feed back operations are described as mentioned earlier.

3. SELF-REGULATION AND SELF REPRODUCTION

Both of the functions depend upon the eight-fold-way of the functionals (karmas), represented mathematically as shown earlier. Phases (Bhāvas) of five types, of the bios have the fundamental role to play in this connection, which are either dependent upon or independent of the functionals (karmas).

Communication of information for adoption of controls corresponding to various situations of bond, rise, termination of karma configurations (prakṛtis), at various way-ward (mārgaṇa) stations (sthānas) has already been detailed earlier.

4. LINGUISTICS

Exposition of the theory of functionals (karmas) in the Digambara Jaina School has been through three types of symbolism: numerical, algebraic and geometric forms. Place-value notation has been used for writing of numbers, subtraction and additions of quantities corresponding to factors. All these have formed fundamental tools of expressions which are mathematical.

The details of language and its function is contained in the theory of knowledge, where scriptural knowledge is concerned. This is also expressed through mathematical expressions.¹

5. CALCULATION MATHEMATICS

The mathematical contents of the Labdhisāra has been detailed earlier, versewise. There are several methods and procedures adopted by the Digambara Jaina School to handle them. A.N. Singh as well as B.B. Datta has given them in details. Some methods given in the GJK and GKK have not been exposed so far. Similarly details have been given in the LDS and KNS regarding manipulation of the various types of Karma data in form of matrices.² All these deserve place in the history of science.

9. CONCLUDING REMARKS

It is now evident that the Digambara Jaina School paid special attention to the study of the karma theory and developed it through mathematical manoeuvre in their own way. This tradition in writing seems to have started some where in the first century A.D., ranging up to the eighteenth century A.D. Most of the fundamental work appears to have been done in the South India, where Mahāvīrācārya compiled his Gaṇita sāra saṁgraha, and perhaps most of the methods and procedures based on the mathematical contents of the Āgama might have given him an urge for the compilation.³

Through the present project, the whole material relevant to that of the Labdhisāra, and that of the Labdhisāra itself, has been systematically compiled, for an easy access and survey of this unified work of about eighteen hundred years of a continuous tradition of the Digambara Jaina School, which had been all along distinguishing, isolated, unexposed for several years after the publication of the Gaṇita sāra saṁgraha.

This project may bring to the notice of scholars, not only the mathematical contents of the Labdhisāra and of its relevant texts, but also the way in which it was applied to the theory of Karma. It is upto the scholars to see what methods and procedures adopted in these texts and their commentaries, interlinked together, might have been originated or developed in this school, pursuing the same model of karma theory all along.

The author should apologize for any short coming in this project accomplishment owing to his pursuit of this eighteen hundred years of traditional learning in order to give a unified survey of it, along with details of the Labdhisāra, its mathematics as well as other scientific contents.

In the above description various aspects have been touched as contents of the LDS: symbols, place-value notation for addition and subtraction, algebraic symbols, geometric symbols, combinations, theory of measure, eight basic operations, logarithm, counting-rod, rule of three sets, fractions, positive and negative numbers, geometrical methods, matrices, series and sequeces, algorithmic verses, maxims, set concepts, logical decisions, structure concept, systems concepts and cybernetics, symbolic method, symmetry concepts and operational procedures.⁴

However, these have remained other aspects of study into the impact on the socio economic, sociological, managerial as well as ecological life on the Indian nation and country, of the deep rooted Karma systems elaborated in various philosophic schools of India, and perhaps abroad, in various maxims of the Bible as well as the Kuran and other holy texts, whenever merits and demerits of bios got through a scientific trend of introspection. It is strange, to find that in such a remote past, the karma theory in the Digambara Jaina School of thought could be pursued through mathematical as well as symbolic manoeuvre, with an unbroken tradition of about eighteen hundred years. It also remains to be find whether in the karma systems, the dialectical materialism was present to play its decisive role.

1. For details of a little portion of the Jñāna-pravāda, cf. KSP, vol. 1, (1974), pp. 11-138. Cf. also GJK, vol. 2, (1979), pp. 505-680. Vide also Sikdar, J.C., (July, 1972 BR).

2. Singh, A.N. (1942, BB, 1949, BR, 1950, BR), Datta, B.B. (1929, BR, 1935, BR), cf. also Datta, B.B. and Sjingh, A.N., 1962, BB), Vide also Shukla, K.S., (1979, BR), Cf. also Jain, L.C., (1958, BB, 1967, BR, 1976, BR, 1977, BR, 1981, BR, 1979 BR).

3. Vide the remark of Mahāvīrācārya in GSS (p. 70), "Thus the terminology is stated briefly by the great sages. What still remains to be said should be learnt in detail from the Āgama."

4. Vide Report on the research project on "The Labdhisāra of Nemicaṇḍra Siddhānta Cakravartī" (1984-1987), submitted at the INSA.

आचार्य नेमिचन्द्र सिद्धान्त चक्रवर्ति विरचित

गोम्मटसार जीवकाण्ड

सिद्धं सुद्धं पणमिय जिणिंदवर-नेमिचंदमकलंकं ।

गुणरयणभूसणुदयं जीवस्स. परूवणं वोच्छं ।।१।।

अर्थ- सिद्धावस्था या स्वात्मोपलब्धिको जो प्राप्त हो चुका है अथवा न्यायके प्रमाणोंसे जिसकी सत्ता सिद्ध है और जो चार घातिया द्रव्यकर्मोंके अभावसे शुद्ध, तथा मिथ्यात्वादि भावकर्मोंके नाशसे अकलंक हो चुका है एवं जिसके सदा ही सम्यक्त्वादि गुणरूपी रत्नोंके भूषणोंका उदय रहता है, इस प्रकारके श्रीजिनेन्द्रवर नेमिचन्द्र स्वामीको नमस्कार करके, जो उपदेशद्वारा पूर्वाचार्य परम्परासे चला आ रहा है इसलिये सिद्ध और पूर्वापर विरोधादि दोषोंसे रहित होनेके कारण शुद्ध और दूसरेकी निन्दा आदि न करनेके कारण तथा रागादिका उत्पादक न होने से निष्कलंक है और जिससे सम्यक्त्वादि गुणरूपी रत्नभूषणोंकी प्राप्ति होती है- जो विकथा आदिकी तरह रागका कारण नहीं है, इस प्रकारके जीवप्ररूपण नामक ग्रन्थको अर्थात् जिसमें अशुद्ध जीवके स्वरूप भेद-प्रभेद आदि दिखाये गये हैं इस प्रकारके ग्रन्थको कहूँगा।

Trans.1. Bowing to the Liberated, Pure, Spotless Moon, (Lord) Nemi, Supreme among Jinendras (Conquerors), I shall speak of the (part) descriptive of the Soul, in which sparkle the ornaments of jewels of qualities.

गुण जीवा पज्जत्ती पाणा सण्णा य मग्गणाओ य ।

उवओगो वि य कमसो वीसं तु परूवणा भणिदा ।।२।।

अर्थ- गुणस्थान, जीवसमास, पर्याप्ति, प्राण, संज्ञा, चौदह मार्गणा और उपयोग इस प्रकार ये बीस प्ररूपणा पूर्वाचार्यों ने कही हैं।

Trans. 2. (14) Spiritual stages (Guṇa-Sthānas); (14) Soul classes (Jīva Samāsa); (6 kinds of) capacity to develop (Paryāpti); (10) Vitalities (Prāṇa); (4) Impulses, or animate feelings (Sañjñā); and (14) Soul-quests (Mārgaṇā) also; (12 kinds of) conscious attentiveness (Upayoga), respectively have been described (in) 20 chapters.

संखेओ ओघो त्ति य गुणसण्णा सा च मोहजोगभवा ।

वित्थारादेसो त्ति य मग्गणसण्णा सकम्मभवा ।।३।।

अर्थ- संक्षेप और ओघ यह गुणस्थानकी संज्ञा है और वह मोह तथा योगके निमित्तसे उत्पन्न होती है। इसी तरह विस्तार तथा आदेश यह मार्गणाकी संज्ञा है और वह भी अपने-अपने योग्य कर्मोंके उदयादिसे उत्पन्न होती है। यहाँ पर चकारका ग्रहण किया है इससे गुणस्थानकी सामान्य और मार्गणाकी विशेष यह भी संज्ञा समझनी चाहिये।

Trans. 3. Summary (Saṁkṣepa) and Proposition (Ogha) (are) the other names for the spiritual stages (Guṇa Sthāna). The spiritual stages are due to delusion (Moha) and soul's vibratory activity (Yoga). Detail (Vistāra) and exposition (Ādeśa) (are) the other names for the soul-quest (Mārgaṇā). The (14) soul-quests (are) due to (the operation of) their (corresponding) Karmas.

आदेसे संलीणा जीवा पज्जत्ति-पाण-सण्णाओ ।

उवओगो वि य भेदे बीसं तु परूवणा भणिदा ।।४।।

अर्थ- जीवसमास, पर्याप्ति, प्राण, संज्ञा और उपयोग इन सब भेदोंका मार्गणाओंमें ही भले प्रकार अन्तर्भाव हो जाता है। इसलिये अभेदविवक्षासे गुणस्थान और मार्गणा ये प्ररूपणा ही माननी चाहिये। किन्तु बीस प्ररूपणा जो कही हैं वे भेद विवक्षा से हैं।

Trans. 4. In exposition (Ādeśa, i.e., soul-quest) are included (14) soul-classes, (Jīva-Samāsa), (6 kinds of) capacity to develop (Paryāpati), (10) Vitalities (Prāṇa) and (4) impulses or animate feelings (Sañjñā), also (12 kinds of) conscious attentiveness (Upayoga). (Thus really there are only two chapters, 14 Spiritual Stages and 14 Soul-Quests), but by (further) division 20 chapters have been laid down.

इन्द्रियकाये लीणा जीवा पज्जति-आण-भास-मणो ।

जोगे काओ णाणे अक्खा गदिमग्गणे आऊ ॥५॥

अर्थ- इन्द्रिय तथा कायमार्गणामें स्वरूप-स्वरूपवत् सम्बन्धकी अपेक्षा अथवा सामान्य-विशेषकी अपेक्षा जीवसमासका अन्तर्भाव हो सकता है क्योंकि इन्द्रिय तथा काय जीवसमासके स्वरूप हैं और जीवसमास स्वरूपवान् है तथा इन्द्रिय और काय विशेष हैं और जीवसमास सामान्य है। इसी प्रकार धर्म-धर्मी सम्बन्ध की अपेक्षा पर्याप्ति भी अन्तर्भूत हो सकती है क्योंकि इन्द्रिय धर्मी हैं पर्याप्ति धर्म हैं। कार्यकारणसम्बन्धकी अपेक्षा श्वासोच्छ्वास प्राण, वचनबल प्राण तथा मनोबल प्राणका पर्याप्तिमें अन्तर्भाव हो सकता है क्योंकि प्राण कार्य हैं और पर्याप्ति कारण है। पर्याप्ति, इन्द्रिय और कायमें अन्तर्भूत हैं। अतएव श्वासोच्छ्वास, वचनबल और मनोबल प्राण भी उन्हींमें अन्तर्भूत हो जाते हैं। कायबल प्राण विशेष हैं और योग सामान्य है, इसलिये सामान्य-विशेषकी अपेक्षा योग मार्गणामें कायबल प्राण अन्तर्भूत हो सकता है। कार्यकारण संबंधकी अपेक्षासे ज्ञानमार्गणामें इन्द्रियोंका अन्तर्भाव हो सकता है क्योंकि ज्ञानकार्यके प्रति लब्धीन्द्रिय कारण हैं। इसी प्रकार गतिमार्गणामें आयुप्राणका अन्तर्भाव साहचर्य सम्बन्धकी अपेक्षा हो सकता है क्योंकि इन दोनों ही कर्मोंका उदय सहचर है- साथ ही हुआ करता है।

Trans. 5. In the sense and body soul-quest (Indriya and Kāya Mārgaṇā) are included the (14) soul-classes (Jīva Samāsa), (6 kinds of) capacity to develop, (Paryāpti), and respiration, speech-power, and mind-power vitalities (Śvāsocchvāsa, Bhāṣā-Bala and Mana-Bala Prāṇa). In the vibratory activity soul-quest (Yoga Mārgaṇā) (is included) the body (power vitality) (Kāya-Bala Prāṇa). In the knowledge soul-quest (Jñāna Mārgaṇā) are included the (5) sense-vitalities (Indriya Prāṇa). In the condition of existence soul-quest (Gati Mārgaṇā) (is included) the age vitality (Āyuh Prāṇa).

मायालोहे रदिपुव्वाहारं कोहमाणगहि भयं ।

वेदे मेहुणसण्णा लोहहि परिग्गहे सण्णा ॥६॥

अर्थ- रतिपूर्वक आहार अर्थात् आहारसंज्ञा रागविशेष होनेसे रागका ही स्वरूप है और माया तथा लोभकषाय ये दोनों ही रागविशेष होनेसे स्वरूपवान् हैं। इसलिये स्वरूप-स्वरूपवत् सम्बन्धकी अपेक्षा माया और लोभ कषायमें आहारसंज्ञाका अन्तर्भाव होता है। इसी प्रकार (स्वरूप-स्वरूपवत् सम्बन्धकी ही अपेक्षासे) क्रोध तथा मान कषायमें भयसंज्ञाका अन्तर्भाव होता है। कार्यकारण सम्बन्धकी अपेक्षा वेदकषायमें मैथुनसंज्ञाका और लोभकषायमें परिग्रह संज्ञाका अन्तर्भाव होता है क्योंकि वेदकषाय तथा लोभकषाय कारण हैं और मैथुनसंज्ञा तथा परिग्रहसंज्ञा उनके क्रमसे कार्य हैं।

Trans. 6. In the deceit-and-greed (passion) soul-quest (Māyā and Lobha Kaṣāya Mārgaṇā is included) the hunger (animate-feeling Āhāra Sañjñā), accompanied with indulgence (Rati); in anger-and-pride (passion soul-quest Krodha and Māna Kaṣāya Mārgaṇā is included) fear (animate-feeling, Bhaya-Sañjñā); in the sex (soul-quest, Veda-Mārgaṇā is included) coition animate-feeling (Maithuna Sañjñā); and in the greed (passion soul-quest Lobha Kaṣāya Mārgaṇā is included) (worldly-attachment animate-feeling, Parigraha Sañjñā).

सागारो उवजोगो णाणे मग्गहि दंसणे मग्गे ।

अणगारो उवजोगो लीणो ति जिणेहिं णिदिट्ठं ॥७॥

अर्थ- उपयोग दो प्रकारका होता है एक साकार दूसरा अनाकार। साकार उपयोग उसे कहते हैं जिसमें पदार्थ यह घट है, पट है, इत्यादि विशेषरूपसे प्रतिभासित हों, इसीको ज्ञान कहते हैं। इसीलिये इसका ज्ञानमार्गणामें अन्तर्भाव होता है। जिसमें कोई भी विशेष पदार्थ प्रतिभासित न होकर केवल महासामान्यरूप ही विषय प्रतिभासित हो उसको अनाकार उपयोग अथवा दर्शन कहते हैं इसका दर्शनमार्गणामें अन्तर्भाव होता है।

Trans. 7. In knowledge soul-quest (Jñāna Mārgaṇā) is included the definite-conscious attentiveness (Sākāra Upayoga); (and) in conation soul-quest (Darśana Mārgaṇā) the indefinite conscious attentiveness (Anākāra Upayoga). It is so described by the Conquerors (Jinas).

9. गुणस्थान (THE SPIRITUAL STAGES)

जेहिं दु लखिखज्जंते उदयादिसु संभवेहिं भावेहिं ।

जीवा ते गुणसण्णा णिद्धिद्धा सव्वदरसीहिं ॥८॥

अर्थ- दर्शन मोहनीय आदि कर्मोंकी उदय, उपशम, क्षय, क्षयोपशम, आदि अवस्थाके होने पर होनेवाले जिन परिणामोंसे युक्त जो जीव देखे जाते हैं उन जीवोंको सर्वज्ञदेवने उसी गुणस्थान वाला और उन परिणामोंको गुणस्थान कहा है।

Trans. 8. The thought activities caused by the operation, etc. of Karmas by which souls are distinguished (are) spiritual stages, (as) has been described by the All the seeing.

मिच्छो सासण मिस्सो अविरदसम्मो य देसविरदो य ।

विरदा पमत्त इदरो अपुव्व अणियट्ठि सुहमो य ॥९॥

अर्थ- १. मिथ्यात्व २. सासन ३. मिश्र ४. अविरतसम्यग्दृष्टि ५. देशविरत

६. प्रमत्तविरत ७. अप्रमत्तविरत ८. अपूर्वकरण ९. अनिवृत्तिकरण १०. सूक्ष्मसाम्पराय

Trans. 9. Delusion (Mithyātva), Downfall (Sāsādāna), Mixed (Miśra), and Vowless right belief (Avirata Samyaktva), Partial vow (Deśa-Virata); Imperfect vow (Pramatta-Virata), the other, i.e., perfect vow (Pramatta-Virata); New thought-activity (Apūrvā Karaṇa), Advanced thought-activity (Anivṛtti Karaṇa), and Slightest delusion (Sūkṣma Sāmparāya).

उवसंत खीणमोहो सजोगकेवलजिणो अजोगी य ।

चउदस जीवसमासा कमेण सिद्धा य णादव्वा ॥१०॥

अर्थ- ११. उपशान्त मोह, १२. क्षीणमोह, १३. सयोगकेवलीजिन, और १४. अयोगकेवली जिन ये चौदह जीवसमास (गुणस्थान) हैं। और सिद्ध इन जीवसमासों- गुणस्थानों से रहित हैं।

Trans. 10. Subsided-delusion (Upasānta Moha), Delusionless (Kṣīṇa Moha), Vibrating omniscient Conqueror (Sayoga Kevalī Jina), and Non-Vibrating omniscient (Ayoga Kevalī): these should be known to be the 14 spiritual stages (Jīva Samāsa-Guṇasthāna) one after another. After the last, the souls become liberated (Siddha).

मिच्छे खलु ओदइओ विदिये पुण पारणामिओ भावो ।

मिस्से खओवसमिओ अविरदसम्महि तिण्णेव ॥११॥

अर्थ- प्रथम गुणस्थानमें औदयिक भाव होते हैं और द्वितीय गुणस्थानमें पारिणामिक भाव होते हैं। मिश्रमें क्षायोपशमिक भाव होते हैं और चतुर्थगुणस्थानमें औपशमिक, क्षायिक, क्षायोपशमिक इस प्रकार तीनों ही भाव होते हैं।

Trans. 11. In delusion (Mithyātva-Guṇasthāna) there is certainly the thought-activity due to the operation of Karmas (Audayika-Bhāva), and in the second (Downfall, Sāsādana), natural (Pāriṇāmika) thought-activity. In the mixed (Miśra), the destructive subsidential-thought activity, (and) in the vowless-right-belief (Avirata Samyaktva) all the three i.e., subsidential, destructive and destructive-subsidential, (Aupaśamika, Kṣāyika and Kṣāyopāśamika).

एदे भावा णियमा दंसणमोहं पडुच्च भणिदा हु ।

चारित्तं णत्थि जदो अविरदअंतेसु ठाणेसु ॥१२॥

अर्थ- मिथ्यादृष्टि आदि गुणस्थानोंमें जो नियम रूपसे औदायिकादि भाव कहे हैं वे दर्शन मोहनीय कर्म की अपेक्षा से हैं क्योंकि चतुर्थ गुणस्थान पर्यन्त चारित्र नहीं पाया जाता ।

Trans. 12. These thought-activities are certainly necessarily said to be from the view point of the right-belief-deluding Karma (Darśana-Moha) because upto the end of vowless (Avirata) stage (i.e., in the first four spiritual stages), (there) is no right conduct (Cāritra).

देसविरदे पमत्ते इदरे य खओवसमियभावो दु ।

सो खलु चरित्तमोहं पडुच्च भणियं तहा उवरिं ॥१३॥

अर्थ- देशविरत, प्रमत्त, अप्रमत्त इन गुणस्थानोंमें चारित्रमोहनीयकी अपेक्षा क्षायोपशमिक भाव होते हैं । तथा इनके आगे अपूर्वकरण आदि गुणस्थानोंमें भी चारित्रमोहनीयकी अपेक्षासे ही भावोंको कहेंगे ।

Trans. 13. In the partial, Imperfect, and the other (i.e., Perfect) vow, (Deśa-virata, Pramatta-Virata and Apramatta-Virata) (there is) the destructive-subsidential thought-activity. This certainly is said to be from the view-point of right-conduct-deluding-Karma (Cāritra Mohanīya). The same for higher stages.

तत्तो उवरिं उवसम-भावो उवसामगेसु खवगेसु ।

खइओ भावो णियमा अजोगिचरिमो ति सिद्धे य ॥१४॥

अर्थ- सातवें गुणस्थानसे ऊपर उपशमश्रेणी वाले आठवें, नौवें, दशवें गुणस्थानमें तथा ग्यारहवें उपशान्त मोहमें औपशमिक भाव ही होते हैं । इसी प्रकार क्षपक श्रेणी वाले उक्त तीनों ही गुणस्थानोंमें तथा क्षीणमोह, सयोगकेवली, अयोगकेवली इन तीन गुणस्थानोंमें और गुणस्थानातीत सिद्धोंके नियमसे क्षायिक भाव ही पाया जाता है क्योंकि उपशमश्रेणी वाला तीनों गुणस्थानोंमें चारित्रमोहनीयकर्मकी इक्कीस प्रकृतियोंका उपशम करता है और ग्यारहवेंमें सम्पूर्ण चारित्रमोहनीयकर्मका उपशम कर चुकता है । इसलिये यहाँ पर औपशमिक भाव ही हुआ करते हैं । इसी तरह क्षपक श्रेणीवाला उन्हीं इक्कीस प्रकृतियोंका उन्हीं तीन गुणस्थानोंमें क्षपण करता है और क्षीणमोह, सयोगकेवली, अयोगकेवली तथा सिद्धस्थानमें पूर्णतया क्षय हो चुका है, इसलिये इन स्थानोंमें क्षायिकभाव ही होता है ।

यहाँ इन सब भावोंका कथन चारित्रमोहनीयकी अपेक्षा से ही है, शेष कर्मोंकी अपेक्षासे अन्य भाव भी पाया जाता है परन्तु मुख्यतया सिद्धोंके केवल क्षायिक भाव ही रहा करता है ।

इस प्रकार संक्षेपसे सम्पूर्ण गुणस्थानोंमें होनेवाले भाव और उनके निमित्तको दिखाकर गुणस्थानोंके लक्षणका कथन क्रमप्राप्त है, इसलिये प्रथम गुणस्थानका लक्षण और उसके भेदोंको कहते हैं ।

Trans. 14. Beyond this (i.e., the 7th stage), in the (4) subsidential stages, (i.e., 8th, 9th, 10th and 11th) the thought-activity (is) subsidential, and in the (4) destructive stages (i.e., 8th, 9th, 10th and 12th), and up to end of the non-vibrating omniscient stage, (i.e., in the 13th and 14th), and in the liberated soul (there is) necessarily the "destructive" thought-activity.

मिच्छोदयेण मिच्छत्तमसद्दहणं तु तच्च अत्थाणं ।

एयंतं विवरीयं विणयं संसयिदमण्णाणं ॥१५॥

अर्थ- मिथ्यात्व प्रकृतिके उदयसे होने वाले तत्त्वार्थके अश्रद्धानको मिथ्यात्व कहते हैं। इसके पाँच भेद हैं- एकान्त, विपरीत, विनय, संशयित और अज्ञान।

Trans. 15. (The delusion stage) or wrong belief-thought-activity (Mithyātva) is caused by the operation of the wrong-belief, (Mithyātva) sub-class of the right-belief-deluding Karma. It consists in not having belief in things as they are (Tattvārtha) (i.e., the seven Principles Tattvas of Jainism). Wrong-belief is of 5 kinds:-

1. One-sided belief (Ekānta).
2. Perverse belief (Viparīta).
3. Veneration (of false creeds-Vinaya).
4. Doubtful belief (Saṁśaya).
5. Indiscriminate belief (Ajñāna).

एयंत बुद्धदरसी विवरीओ बह्व तावसो विणओ ।

इंदो विय संसइयो मक्कडियो चेव अण्णाणी ॥१६॥

अर्थ- ये केवल दृष्टान्तमात्र हैं इसलिये प्रत्येक दृष्टान्तवाचक शब्दके साथ आदि शब्द और लगा लेना चाहिये। अर्थात् बौद्धादि मतवाले एकान्त मिथ्यादृष्टि हैं। याज्ञिक ब्राह्मणादि विपरीत मिथ्यादृष्टि हैं। तापसादि विनय मिथ्यादृष्टि हैं। इन्द्र नामक श्वेताम्बर गुरु प्रभृति संशय मिथ्यादृष्टि हैं और मस्करी (मंखलिगोशाल?) आदिक अज्ञान मिथ्यादृष्टि हैं।

Trans. 16. One-sided belief (Ekānta), as in Budhists (etc.), Perverse belief (Viparīta), as in Brahmanas (etc.) Veneration of false creeds (Vinaya) as in mortifiers (etc.), Tāpasa, and doubtful belief (Saṁśaya) as in the followers of Indra, (etc.), also indiscriminate belief (Ajñāna) as in the followers of Maskarī (etc.).

मिच्छंतं वेदंतो जीवो विवरीयदंसणो होदि ।

णय धम्मं रोचेदि हु महुरं खु रसं जहा जरिदो ॥१७॥

अर्थ- मिथ्यात्व प्रकृतिके उदयसे उत्पन्न होनेवाले मिथ्या परिणामोंका अनुभव करने वाला जीव विपरीत श्रद्धानवाला हो जाता है। उसको जिस प्रकार पित्त ज्वरसे युक्त जीवको मीठा रस भी अच्छा मालूम नहीं होता उसी प्रकार यथार्थ धर्म अच्छा नहीं मालूम होता- रुचिकर नहीं होता।

Trans. 17. The soul involved in wrong-belief thought-activity becomes a perverted believer, and certainly has no inclination for Truth (Dharma) as a man in fever (has no taste) for sweet (sugar-cane) juice.

मिच्छाइट्ठी जीवो उवइहं पवयणं ण सदहदि ।

सदहदि असब्भावं उवइहं वा अणुवइहं ॥१८॥

अर्थ- मिथ्यादृष्टि जीव समीचीन गुरुओंके पूर्वापर विरोधादि दोषोंसे रहित और हितके करनेवाले भी वचनोंका यथार्थ श्रद्धान नहीं करता किन्तु इसके विपरीत आचार्याभासोंके द्वारा उपदिष्ट या अनुपदिष्ट असद्भावका अर्थात् पदार्थके विपरीत स्वरूपका इच्छानुसार श्रद्धान करता है।

Trans. 18. The wrong-believing soul does not believe in the noble doctrine preached (by the Conquerors) and believes in the nature of things as it really is not, whether it be preached or not by (the teaching or description of) any one.

आदिम-सम्मत्तद्धा समयादो छावलि ति वा सेसे ।

अणअण्णदरुदयादो णासियसम्मो ति सासणक्खो सो ॥१९॥

सम्मत्तरयणपव्वय-सिहरादो मिच्छभूमिसमभिमुहो ।

णासियसम्मत्तो सो सासणणामो मुणेयव्वो ॥२०॥

अर्थ- प्रथमोपशम सम्यक्त्वके अथवा यहाँ पर वा शब्दका ग्रहण किया है, इसलिये द्वितीयोपशम सम्यक्त्वके अन्तर्मुहूर्त मात्र कालमें से जब जघन्य एक समय तथा उत्कृष्ट छह आवली प्रमाण काल शेष रहे उतने कालमें अनन्तानुबन्धी क्रोध, मान, माया, लोभमें से किसीके भी उदयमें आनेसे सम्यक्त्वकी विराधना होने पर सम्यग्दर्शन गुणकी जो अव्यक्त अतत्त्व श्रद्धानरूप परिणति होती है, उसको सासन या सासादन गुणस्थान कहते हैं।

सम्यक्त्वरूपी रत्नपर्वतके शिखरसे गिरकर जो जीव मिथ्यात्वरूपी भूमिके सम्मुख हो चुका है, अतएव जिसने सम्यक्त्व की विराधना (नाश) कर दी है, और मिथ्यात्वको प्राप्त नहीं किया है, उसको सासन या सासादन गुणस्थानवर्ती कहते हैं।

Trans. 19-20. In the first or (second) subsidential right belief (Prathama or Dvitiyopāśama Samyaktva) (when in the expiry of their duration, there) remains from one instant of time (Samaya) up to 6 winks (Āvalī), (and) by the operation of any of the (4) Error-feeding-passions (Anantānubandhī Kaśāya) the right-belief is destroyed (and the soul falls down from the 4th stage to the second); this (is) the Downfall Sāsana or Sāsādana stage (Guṇasthāna).

(Falling) from the summit of the mountain of the gem of right belief (Samyaktva), facing the plain of wrong belief (Mithyātva) the right belief being lost, the (stage) should be known by the name of Downfal (Sāsana or Sāsādana).

सम्मामिच्छुदयेण य जत्तंतरसव्वघादिकज्जेण ।

ण य सम्मं मिच्छं पि य सम्मिस्सो होदि परिणामो ॥२१॥

अर्थ- जिसका प्रतिपक्षी आत्माके गुणको सर्वथा घातनेका कार्य दूसरी सर्वघाति प्रकृतियोंसे विलक्षण जाति का है उस जात्यन्तर सर्वघाति सम्यग्मिथ्यात्व प्रकृतिके उदयसे केवल सम्यक्त्वरूप या मिथ्यात्वरूप परिणाम न होकर जो मिश्ररूप परिणाम होता है, उसको तीसरा मिश्रगुणस्थान कहते हैं।

शंका- यह तीसरा गुणस्थान बन नहीं सकता, क्योंकि मिश्ररूप परिणाम ही नहीं हो सकते। यदि विरुद्ध दो प्रकारके परिणाम एक ही आत्मा और एक ही कालमें माने जाये तो शीत-उष्णकी तरह परस्पर सहानवस्थान लक्षण विरोध दोष आवेगा। यदि क्रमसे दोनों परिणामोंकी उत्पत्ति मानी जाय, तो मिश्ररूप तीसरा गुणस्थान नहीं बनता।

समाधान- यह शंका ठीक नहीं है, क्योंकि मित्रामित्रन्यायसे एक काल और एक ही आत्मा में मिश्ररूप परिणाम हो सकते हैं।

Trans. 21. On the operation of the right and-wrong belief or mixed (Samyaktva-Mithyātva or Miśra kind of the right-belief-deluding Karma, Darśana Moha), which is a slightly different kind of all-destructive Karmic matter (Sarvaghāti Prakṛti), (there) is neither (entirely) right belief, nor (entirely) wrong belief, (but) the thought activity is mixed (i.e., a mixture of right and wrong belief). (This is the description of 3rd or mixed spiritual stage). (Miśra Guṇasthāna).

दहिगुडमिव वामिस्सं पुहभावं णेव कारिदुं सक्कं ।

एवं मिस्सयभावो सम्मामिच्छो ति णादव्वो ॥२२॥

अर्थ- जिस प्रकार दही और गुड़को परस्पर इस तरहसे मिलानेपर कि फिर उन दोनोंको पृथक्-पृथक् नहीं कर सकें, उस द्रव्यके प्रत्येक परमाणुका रस मिश्ररूप (खट्टा और मीठा मिला हुआ) होता है। उसी प्रकार मिश्रपरिणामोंमें भी एक ही कालमें सम्यक्त्व और मिथ्यात्वरूप परिणाम रहते हैं, ऐसा समझना चाहिये।

Trans. 22. The (mixed) thought-activity can in no way be split up (into its two parts right and wrong belief), as (taste of) mixed curd and treacle (cannot be referred separately to curd or sugar). The thought activity mixed like this should be known to be the mixed (Samayktva Mithyātva stage).

सो संजमं ण गिण्हदि देसजमं वा ण बंधदे आउं ।

सम्मं वा मिच्छं वा पडिवज्जिय मरदि णियमेण ॥२३॥

अर्थ- तृतीय गुणस्थानवर्ती जीव सकलसंयम या देशसंयमको ग्रहण नहीं करता, और न इस गुणस्थानमें आयुकर्मका बन्ध ही होता है तथा इस गुणस्थान वाला जीव यदि मरण करता है तो नियमसे सम्यक्त्व या मिथ्यात्वरूप परिणामोंको प्राप्त करके ही मरण करता है, किन्तु इस गुणस्थानमें मरण नहीं होता ।

Trans. 23. One (in this stage) adopts neither control (samyama i.e., the vows of the saint) nor partial control (Deśa Samyama, i.e., partial vows of the layman), nor does (one) bind the age (Āyuh Karmic matter to one-self); and necessarily one dies having acquired right belief or wrong belief.

सम्मत्त मिच्छपरिणामेसु जहिं आउगं पुरा बद्धं ।

तहिं मरणं मरणंतसमुग्घादो वि य ण मिस्सम्मि ॥२४॥

अर्थ- तृतीय गुणस्थानवर्ती जीवने तृतीय गुणस्थानको प्राप्त करनेसे पहले सम्यक्त्व या मिथ्यात्वरूपके परिणामोंमेंसे जिस जातिके परिणाम कालमें आयुकर्मका बन्ध किया हो उसी तरहके परिणामोंके होने पर उसका मरण होता है, किन्तु मिश्र गुणस्थानमें मरण नहीं होता और न इस गुणस्थानमें मारणान्तिक समुद्घात ही होता है ।

Trans. 24. Wherever, in the right or wrong-belief thought-activities, he has already bound to himself the age Karma (of his next incarnation), there (alone will be his), death; nor does the death-bed overflow (māraṇāntika samudghāta take place) in the mixed (Miśra stage).

सम्मत्तदेसघादिस्सुदयादो वेदगं हवे सम्मं ।

चलमलिनमगाढं तं णिच्चं कम्मक्खवणहेदु ॥२५॥

अर्थ- सम्यग्दर्शन गुणको विपरीत करने वाली प्रकृतियोंमेंसे देशघाति सम्यक्त्व प्रकृतिके उदय होनेपर (तथा अनन्तानुबंधीचतुष्क और मिथ्यात्व मिश्र इन सर्वघाति प्रकृतियोंके आगामी निषेकोंका, सदवस्थारूप उपशम और वर्तमान निषेकों की विना फल दिये ही निर्जरा होने पर) जो आत्माके परिणाम होते हैं उनको वेदक या क्षायोपशमिक सम्यग्दर्शन कहते हैं । वे परिणाम चल, मलिन या अगाढ़ होते हुए भी नित्य ही अर्थात् जघन्य अन्तर्मुहूर्तसे लेकर उत्कृष्ट छ्यासठ सागर पर्यन्त कर्मोंकी निर्जराके कारण हैं ।

जिस प्रकार एक ही जल अनेक कल्लोलरूपमें परिणत होता है, उसी प्रकार जो सम्यक्दर्शन सम्पूर्ण तीर्थंकर या अर्हन्तोंमें सम्मान अनन्त शक्तिके होनेपर भी 'श्री शान्तिनाथजी शान्तिके लिये और श्रीपार्श्वनाथजी रक्षा करनेके लिये समर्थ हैं' इस तरह नाना विषयोंमें चलायमान होता है उसको चल सम्यग्दर्शन कहते हैं जिस प्रकार शुद्ध सुवर्ण भी मलके निमित्तसे मलिन कहा जाता है, उसी तरह सम्यक्त्व प्रकृतिके उदयसे जिसमें पूर्ण निर्मलता नहीं है उसको मलिन सम्यक्दर्शन कहते हैं जिस तरह वृद्ध पुरुषके हाथमें ठहरी हुई लाठी भी काँपती है उसी तरह जिस सम्यग्दर्शनके होते हुए भी अपने बनवाये हुए मन्दिरादिमें 'यह मेरा मन्दिर है' और दूसरेके बनवाये हुए मन्दिरादिमें 'यह दूसरेका है' ऐसा भाव हो उसको अगाढ़ सम्यग्दर्शन कहते हैं ।

Trans. 25. By the operation of right-belief-slightly-clouded-by-wrong-belief, (Samyaktva-Prakṛti-Mithyātva, i.e., the partial-destructive-class of right-belief-deluding Karma) there arises destructive-subsidential-right-belief (Vedaka or Kṣayopasāma Samyaktva). It is wavering (cala), impure (Mala), non-steadfast (Agāḍha), but it (is) always a cause of the destruction of Karmas.

सत्तण्हं उवसमदो उवसम सम्मो खया दु खइयो य ।

विदियकसायुदयादो असंजदो होदि सम्मो य ॥२६॥

अर्थ- तीन दर्शनमोहनीय अर्थात् मिथ्यात्व, मिश्र और सम्यक्त्व प्रकृति तथा चार अनन्तानुबन्धी कषाय इन सात प्रकृतियोंके उपशमसे औपशमिक और सर्वथा क्षयसे क्षायिक सम्यग्दर्शन होता है। इस चतुर्थ गुणस्थानवर्ती सम्यग्दर्शनके साथ संयम बिल्कुल नहीं होता क्योंकि यहाँ पर दूसरी अप्रत्याख्यानावरण कषायका उदय रहा करता है यही कारण है कि इस गुणस्थानवाले जीवको असंयत सम्यग्दृष्टि कहते हैं।

Trans. 26. Subsidential-right-belief (Upaśama Samyaktva) arises by subsidence of (all the) seven kinds of Karmic matter, (i.e. of the 3 sub-classes of right-belief-deluding karma Darśana Moha), and the 4 error-feeding passions (Anantānubandhī kaṣāya). But by the destruction of these seven arises the destructive right belief, kṣāyika (Samyaktva). And by the operation of the second (class, i.e., partial-vow-preventing or Apratyākhyāna) passions this right belief is without control (Asamyata) or vowless.

सम्माइट्टी जीवो उवइडं पवयणं तु सदहदि ।
सदहदि असब्भावं अजाणमाणो गुरुणियोगा ॥२७॥

अर्थ- सम्यग्दृष्टि जीव आचार्योंके द्वारा उपदिष्ट प्रवचनका श्रद्धान करता है किन्तु अज्ञानतावश गुरुके उपदेशसे विपरीत अर्थका भी श्रद्धान कर लेता है।

Trans. 27. The right believing soul believes in the doctrines as preached (by the Conquerors), but (sometimes) by the instruction of an ignorant teacher he believes in the nature of things as they are not.

सुत्तादो तं सम्मं दरसिज्जंतं जदा ण सदहदि ।
सो चेव हवइ मिच्छाइट्टी जीवो तदो पहुदी ॥२८॥

अर्थ- गणधरादिकथित सूत्रके आश्रयसे आचार्यादिके द्वारा भले प्रकार समझाये जाने पर भी यदि वह जीव उस पदार्थका समीचीन श्रद्धान न करे तो वह जीव उस ही कालसे मिथ्यादृष्टि हो जाता है।

Trans. 28. If on that (error) being satisfactorily exposed on the authority of Sūtra, he does not believe (in the truth then), from that moment he certainly becomes a wrong believer.

णो इंदियेसु विरदो णो जीवे थावरे तसे वापि ।
जो सदहदि जिणुतं सम्माइट्टी अविरदो सो ॥२९॥

अर्थ- जो इन्द्रियोंके विषयोंसे तथा त्रस स्थावर जीवोंकी हिंसासे विरत नहीं है किन्तु जिनेन्द्रदेव द्वारा कथित प्रवचनका श्रद्धान करता है वह अविरतसम्यग्दृष्टि है।

Trans 29. He who is vowless with regard to the senses, and also with regard to the (hurting of) mobile (Trasa) and immobile (Sthāvara) living beings, and believes in what has been said by the Conqueror (Jina), is a vowless right believer (Avirata-Samyak-drṣṭi).

पच्चक्खाणुदयादो संजमभावो ण होदि णवरिं तु ।
थोववदो होदि तदो देसवदो होदि पंचमओ ॥३०॥

अर्थ- यहाँ पर प्रत्याख्यानावरण कषायका उदय रहनेसे पूर्ण संयम तो नहीं होता किन्तु यहाँ इतनी विशेषता होती है कि अप्रत्याख्यानावरण कषायका उदय न रहनेसे एकदेश व्रत होते हैं। अतएव इस गुणस्थानका नाम देशव्रत या देशसंयम है। इसी को पाँचवाँ गुणस्थान कहते हैं।

Trans. 30. Owing to the operation of the total-vow-preventing passions (Pratyākhyānā-varaṇa Kaṣāya which is a sub-division of the right-conduct-deluding Karma) the thought-activity which produces (perfect) control (Samyama) does not arise, but (there is) some control. Therefore the 5th (stage) is (called) the partial-vow (Deśavrata) stage.

जो तसवहादु विरदो अविरदओ तह य थावरवहादो ।
एक्कसमयमहि जीवो विरदाविरदो जिणेक्कमई ॥३१॥

अर्थ- जो जीव जिनेन्द्रदेवमें अद्वितीय श्रद्धाको रखता हुआ त्रसकी हिंसासे विरत और उस ही समयमें स्थावरकी हिंसासे अविरत होता है, उस जीवको विरताविरत कहते हैं।

Trans. 31. (He) who vows against the killing of mobile (trasa) souls, and (is) vowless as to the killing of immobile (Sthāvara) souls, and is entirely devoted to the Conqueror (Jina), is vowful and vowless (virata-avirata) at one and the same time.

संजलणणोकसाया-णुदयादो संजमो हवे जह्वा ।

मलजणणपमादो वि य तम्हा हु पमत्तविरदो सो ॥३२॥

अर्थ- सकल संयमको रोकने वाली प्रत्याख्यानवरण कषायका क्षयोपशम होनेसे पूर्ण संयम तो हो चुका है किन्तु उस संयमके साथ-साथ संज्वलन और नोकषायका उदय रहनेसे संयममें मलको उत्पन्न करने वाला प्रमाद भी होता है। अतएव इस गुणस्थानको प्रमत्तविरत कहते हैं।

Trans. 32. Because by the operation of perfect-right-conduct preventing passions (Sañjvalana Kaṣāya) and minor passions (Nokaṣāya) control is (effected), carelessness (Pramāda) productive of impurity also (is caused); therefore it is really the stage careless or imperfect vow (Pramatta Virata), (the sixth spiritual stage).

वत्तावत्तपमादे जो वसइ पमत्तसंजदो होदि ।

सयलगुणसीलकलिओ महव्वई चित्तलायरणो ॥३३॥

अर्थ- जो महाव्रती सम्पूर्ण (२८) मूलगुण और शीलके भेदोंसे युक्त होता हुआ भी व्यक्त एवं अव्यक्त दोनों प्रकारके प्रमादोंको करता है। वह प्रमत्तसंयत गुणस्थानवाला है। अतएव वह चित्रल आचरण वाला माना गया है।

Trans 33. He who remains in evident (Vyakta) and non-evident (Avyakta) carelessness (Pramāda), with all the (28 Root, Mūla) qualities (Guṇa), and calm dispositions, (Śīla) has full vows (Mahāvrata) and is of variegated (i.e., imperfect) conduct, i.e., the observer of imperfect vow (Pramatta Samyata).

विकहा तहा कसाया इंदिय णिदा तहेव पणयो य ।

चदु चदु पणमेगेगं होंति पमादा हु पण्णरस ॥३४॥

अर्थ- चार विकथा- स्त्रीकथा, भक्तकथा, राष्ट्रकथा, अवनिपालकथा, चार कषाय- क्रोध, मान, माया, लोभ, पाँच इन्द्रिय- स्पर्शन, रसना, घ्राण, चक्षु, श्रोत्र, एक निद्रा और एक प्रणय-स्नेह इस तरह कुल मिलाकर प्रमादोंके पन्द्रह भेद हैं।

Trans.34. Censurable talk (Vikathā), passions (Kaṣāya), senses (Indriya), sleep (Nidrā), and attachment (Pṇaya) of 4, 4, 5, 1 and 1 elements respectively are really 15 sorts of carelessness (pramāda).

संखा तह पत्थारो परियट्ठण णट्ठ तह समुद्धिदं ।

एदे पंच पयारा पमदसमुक्कित्तणे पेया ॥३५॥

अर्थ- प्रमादके विशेष वर्णनके विषयमें इन पाँच प्रकारोंको समझना चाहिये। संख्या, प्रस्तार, परिवर्तन, नष्ट और समुद्दिष्ट। आलापोंके भेदोंकी गणनाको संख्या, संख्याके रखने या निकालनेके क्रमको प्रस्तार, एक भेदसे दूसरे भेदपर पहुँचनेके क्रमको परिवर्तन, संख्याके द्वारा भेदके निकालनेको नष्ट और भेदको रखकर संख्या निकालनेको समुद्दिष्ट कहते हैं।

Trans. 35. The number (of combinations Saṅkhyā), distribution (of the elements to form the 80 combinations Prastāra), 80 combinations (Parivartana), analysis (of) the elements from the number of the combinations (Naṣṭa) and synthesis (of the given elements to find out the number of the resulting combination, samuddiṣṭa), these five distinctions should be known in a description of carelessness (Pramāda).

सव्वे पि पुव्वभंगा उवरिमभंगेसु एक्कमेक्केसु ।
मेलंति त्ति य कमसो गुणिदे उप्पज्जदे संखा ॥३६॥

अर्थ- पूर्वके सभी भंग आगेके प्रत्येक भंगमें मिलते हैं इसलिये क्रमसे गुणा करनेपर संख्या उत्पन्न होती है।

Trans. 36. All the elements of each preceding class combine one by one with elements of the succeeding classes and by (their) successive multiplications is produced the number (of the combinations).

पढमं पमदपमाणं कमेण णिक्खविय उवरिमाणं च ।
पिंडं पडि एक्केकं णिक्खत्ते होदि पत्थारो ॥३७॥

अर्थ- प्रथम प्रमादके प्रमाणका विरलनकर क्रमसे निक्षेपण करके उसके एक-एक रूपके प्रति आगेके पिण्डरूप प्रमादके प्रमाणका निक्षेपण करनेपर प्रस्तार होता है।

Trans. 37. Distributions is by placing respectively each one of 4 elements of the first class of Pramāda (gōssip or Vikathā), then covering each one of these with each one of the elements of the succeeding classes.

णिक्खित्तु विदियमेत्तं पढमं तस्सुवरि विदियमेक्केक्कं ।
पिंडं पडि णिक्खेओ एवं सव्वत्थ कायव्वो ॥३८॥

अर्थ- दूसरे प्रमादका जितना प्रमाण है उतनी जगह पर प्रथम प्रमादके पिण्डको रखकर, उसके ऊपर एक-एक पिण्डके प्रति आगेके प्रमादमें से एक-एकका निक्षेपण करना, और आगे भी सर्वत्र इसी प्रकार करना।

Trans. 38. Placing the elements of the first class as many times as there are elements in the second class, in each group on the top, place one by one the element of the second, do like this in all (classes) (till you get the 80 combinations).

तदियक्खो अंतगदो आदिगदे संकमेदि विदियक्खो ।
दोण्णि वि गंतूणंतं आदिगदे संकमेदि पढमक्खो ॥३९॥

अर्थ- प्रमादका तृतीय स्थान अन्तको प्राप्त होकर जब फिरसे आदिस्थानको प्राप्त हो जाये तब प्रमादका दूसरा स्थान भी बदल जाता है। इसी प्रकार जब दूसरा स्थान भी अन्तको प्राप्त होकर फिर आदिको प्राप्त हो जाये तब प्रथम प्रमादका स्थान बदलता है। निद्रा और स्नेह इनका दूसरा भेद नहीं है, इसलिये इनमें अक्षसंचार नहीं होता।

Trans. 39. When all the elements of the third class have come to an end (in distribution as in Gāthā 37), and we come again to its (third class) beginning, (the 1st element of) the second class changes (into its second) (element); when all (the elements of the second class) are (also) exhausted, (then) the first element (of the 1st class) changes (into its second element), (till the whole of the first class is also exhausted, and we get 80 combinations).

पढमक्खो अन्तगदो आदिगदे संकमेदि विदियक्खो ।
दोण्णि वि गंतूणंतं आदिगदे संकमेदि तदियक्खो ॥४०॥

अर्थ- प्रथमाक्ष जो विकथारूप प्रमादस्थान वह घूमता हुआ जब क्रमसे अंततक पहुँचकर फिर स्त्रीकथारूप आदि स्थानपर आता है, तब दूसरा कषायका स्थान क्रोधको छोड़कर मानपर आता है। इसी प्रकार जब दूसरा कषायस्थान भी अन्तको प्राप्त होकर फिर आदि (क्रोध) स्थान पर आता है, तब तीसरा इन्द्रियस्थान बदलता है अर्थात् स्पर्शनको छोड़कर रसनापर आता है।

Trans. 40. The first class having come to an end (in distribution as in gāthā 38) (we come) to its beginning. (Then) (the 1st element) of the second class changes (into its second element); (when all the elements of) the second class are also exhausted, (then the first elements of) the 3rd class changes (into its second element), (till the whole) of the 3rd class is also exhausted and we get 80 combinations.

सगमाणेहिं विभत्ते सेसं लक्खित्तु जाण अक्खपदं ।

लब्धे ख्वं पक्खिव सुद्धे अन्ते ण ख्व पक्खेवो ॥४१॥

अर्थ- किसीने जितनेवाँ प्रमादका भंग पूछा हो उतनी संख्याको रखकर उसमें क्रमसे प्रमाद प्रमाणका भाग देना चाहिये। भाग देनेपर जो शेष रहे, उसको अक्षस्थान समझ जो लब्ध आवे उसमें एक मिलाकर, दूसरे प्रमादके प्रमाणका भाग देना चाहिए और भाग देनेसे जो शेष रहे, उसको अक्षस्थान समझना चाहिये। किन्तु शेष स्थानमें यदि शून्य हो तो अन्तका अक्षस्थान समझना चाहिये और उसमें एक नहीं मिलाना चाहिये। जैसे किसीने पूछा कि प्रमादका बीसवाँ भंग कौनसा है? तो बीसकी संख्याको रखकर उसमें प्रथम विकथा प्रमादके प्रमाण चारका भाग देनेसे लब्ध पाँच आये, और शून्य शेष स्थानमें है, इसलिये पाँचमें एक नहीं मिलाना, और अन्तकी विकथा (अवनिपालकथा) समझना चाहिये। इसी प्रकार आगे भी कषायके प्रमाण चारका पाँचमें भाग देनेसे लब्ध और शेष एक एक ही रहा, इसलिये प्रथम क्रोधकषाय और लब्ध एकमें एक और मिलानेसे दो होते हैं, इसलिये दूसरी रसनेन्द्रिय समझनी चाहिये। अर्थात् २०वाँ भंग अवनिपालकथालापी, क्रोधी, रसनेन्द्रियवशंगतो, निद्रालुः स्नेहवान् यह हुआ। इसी रीतिसे प्रथम प्रस्तारकी अपेक्षा २०वाँ भंग स्त्रीकथालापी लोभी श्रोत्रेन्द्रियवशंगतः होगा।

Trans. 41. Divide the number by the number of the elements (in the class), the remainder gives the position of the element in its class. To the quotient add one. (Divide the sum by the number of the elements in the next class, the remainder again gives the position of the element in the class. And so on). (If there is) no remainder, (it means that the element is) last (in the class) (and then) one is not added (to the quotient).

संठाविदूण ख्वं उवरीदो संगुणित्तु सगमाणे ।

अवणिज्ज अणंकिदयं कुज्जा एमेव सव्वत्थ ॥४२॥

अर्थ- एकका स्थापन करके आगेके प्रमादका जितना प्रमाण है, उसके साथ गुणाकार करना चाहिये। और उसमें जो अनंकित हो उसका त्याग करे। इसी प्रकार आगे भी करनेसे उद्दिष्टका प्रमाण निकलता है।

Trans. 42. Taking 1, multiply it by the number of the elements of the last class, subtract from it the number of elements which follow in their class the element given. Do the same at all steps.

इगिवितिचपणखपणदशपण्णरसं खवीसतालसट्ठी य ।

संठविय पमदठाणे णट्ठुद्धिं च जाण तिद्वाणे ॥४३॥

अर्थ- तीन प्रमादस्थानोंमें क्रमसे प्रथम पाँच इन्द्रियोंके स्थानपर एक, दो, तीन, चार, पाँचको क्रमसे स्थापन करना। चार कषायोंके स्थानपर शून्य, पाँच, दश, पन्द्रह स्थापन करना। तथा विकथाओंके स्थानपर क्रमसे शून्य बीस, चालीस, साठ, स्थापन करना। ऐसा करनेसे नष्ट, उद्दिष्ट अच्छी तरह समझमें आ सकते हैं। क्योंकि जो भंग विवक्षित हो उसके स्थानोंपर रखी हुई संख्याको परस्पर जोड़ने से, यह कितनेवाँ भंग है अथवा इस संख्यावाले भंगमें कौन-कौन सा प्रमाद आता है, यह समझमें आ सकता है।

Trans. 43. 1,2,3,4,5;0,5,10,15;0,20,40, and 60- placing these in 3 lines of 3 classes of (Pramāda), find out the elements or the number of the combinations i.e., analysis and synthesis (Naṣṭa and Uddiṣṭa).

इगिवितिचखचडवारं खसोलरागट्ठदालचउसट्ठिं ।

संठविय पमदठाणे णट्ठुद्धिं च जाण तिद्वाणे ॥४४॥

अर्थ- दूसरे प्रस्तारकी अपेक्षा तीनों प्रमादस्थानोंमें क्रमसे प्रथम विकथाओं के स्थान पर १।२।३।४ स्थापन करना और कषायोंके स्थानपर ०।४।८।१२ स्थापन करना और इन्द्रियोंकी जगह पर ०।१६।३२।४८।६४ स्थापन करना ऐसा करनेसे दूसरे प्रस्तारकी अपेक्षा भी पूर्वकी तरह नष्टोद्दिष्ट समझमें आ सकते हैं।

Trans. 44. 1,2,3,4;0,4,8,12; 0,16,32,48,64,- placing these in 3 lines of 3 classes of (Pramāda), find out the elements or number of combinations i.e., analysis and synthesis (Naṣṭa and Uddiṣṭa).

संजलणणोकसायाणुदयो मंदो जदा तदा होदि ।

अपमत्तगुणो तेण य अपमत्तो संजदो होदि ॥४५॥

अर्थ- जब संज्वलन और नो कषायका मन्द उदय होता है तब सकल संयमसे युक्त मुनिके प्रमादका अभाव हो जाता है। इसलिये इस गुणस्थानको अपमत्तसंयत कहते हैं। इसके दो भेद हैं- एक स्वस्थानाप्रमत्त दूसरा सातिशयाप्रमत्त।

Trans 45. When (there is) mild (manda) operation of perfect-right-conduct-preventing (Sañjvalana), and the minor passions (No-kaṣāya), there arises the quality of non-carelessness (Apramatta), and by (reason of) this (quality, the soul) attains (the 7th spiritual stage) of perfect vow (Apramatta Saṁyata).

पट्टासेसपमादो वयगुणसीलोलिमंडिओ णणी ।

अणुवसमओ अखवओ ज्ञाणणिणीणो हु अपमत्तो ॥४६॥

अर्थ- जिस संयतके सम्पूर्ण व्यक्ताव्यक्त प्रमाद नष्ट हो चुके हैं और जो समग्र ही महाव्रत अट्टाईस मूलगुण तथा शीलसे युक्त हैं, शरीर और आत्माके भेदज्ञानमें तथा मोक्षके कारणभूत ध्यानमें निरन्तर लीन रहता है, ऐसा अप्रमत्त मुनि जब तक उपशम या क्षपक श्रेणीका आरोहण नहीं करता तब तक उसको स्वस्थान अप्रमत्त अथवा निरतिशय अप्रमत्त कहते हैं।

Trans. 46. He, whose combinations of carelessness are all suppressed, who is adorned with the chain of the (5 great) vows, (28 root) qualities, and calm disposition, has right knowledge, is absorbed in concentration, and is not capable of ascending further on the subsidential or destructive ladder (Upaśama or kṣapaka śreṇī), is certainly (in the ordinary Svasthāna) stage of perfect (apramatta) vows.

इगवीस मोह खबणुवसमण णिमित्ताणि तिकरणणि तहिं ।

पढमं अधापवत्तं करणं तु करेदि अपमत्तो ॥४७॥

अर्थ- अप्रत्यख्यानावरण, प्रत्याख्यानावरण और संज्वलन सम्बन्धी क्रोध, मान, माया, लोभ- इस तरह बारह और नव हास्यादिक नोकषाय- कुल मिलाकर मोहनीयकर्मकी इन इक्कीस प्रकृतियोंके उपशम या क्षय करनेको आत्माके ये तीन करण अर्थात् तीन प्रकारके विशुद्ध परिणाम निमित्तभूत है। अधःकरण, अपूर्वकरण और अनिवृत्तिकरण। उनमेंसे सातिशय अप्रमत्त अर्थात् जो श्रेणी चढ़नेके सम्मुख या उद्यत हुआ है वह नियमसे पहले अधःप्रवृत्तकरणको करता है।

Trans. 47. (There are) 3 (kinds of) thought-activity (kaṛaṇa) for the destruction or subsidence of 21 sub-classes of right-conduct-deluding-Karma (cāritra moha). (These are all the 25 passions except the 4 error-feeding, Anantānubandhī passions). (He who) out of these (3) gains the first lower (thought-activity) (adhaḥ Pravṛtta kaṛaṇa), is (in the) extraordinary (sātiśaya, 7th stage of) perfect vow (apramatta).

जह्मा उवरिमभावा हेडिमभावेहिं सरिसगा होति ।

तह्मा पढमं करणं अधापवत्तोत्ति णिदिदं ॥४८॥

अर्थ- अधःप्रवृत्त करणके कालमें से ऊपरके समयवर्ती जीवोंके परिणाम नीचेके समयवर्ती जीवोंके परिणामोंके सदृश अर्थात् संख्या और विशुद्धिकी अपेक्षा समान होते हैं। इसलिये प्रथम करणको अधःप्रवृत्त करण कहा है।

Trans. 48. Because the thought-activity of the posterior souls may become like that of the prior souls, there fore the first of the (3 kinds of) thought-activity has been said to be lower thought-activity; (Adhaḥ pravṛtta Kaṛaṇa).

अन्तोमुहुत्तमेत्तो तक्कालो होदि तत्थ परिणामा ।
लोगाणमसंखमिदा उवरुबरिं सरिसवड्डिगया ॥४६॥

अर्थ- इस अधःप्रवृत्तकरणका काल अन्तर्मुहूर्त मात्र है और उसमें परिणाम असंख्यातलोक प्रमाण होते हैं और ये परिणाम ऊपर-ऊपर सदृश वृद्धिको प्राप्त होते गये हैं। अर्थात् यह जीव चारित्रमोहनीयकी शेष २१ प्रकृतियोंका उपशम या क्षय करने के लिए अधःकरण, अपूर्वकरण, अनिवृत्तिकरणोंको करता है। प्रत्येक भेदके परिणामोंका प्रमाण असंख्यातलोक प्रमाण है और उनमें जो उत्तरोत्तर वृद्धि होती है, वह समानताको लिए हुए होती है। इनमेंसे अधःकरण श्रेणी चढ़नेके सम्मुख सातिशय अप्रमत्तके होता है और अपूर्वकरण आठवें और अनिवृत्तिकरण नवें गुणस्थानमें होता है।

Trans. 49. The duration of this (Lower thought-activity or Adhaḥ Karaṇa) is one antara muhūrta, the thoughts in it are innumerable times the innumerable spatial units in the universe; and in the upper levels they increase in purity uniformly.

अंतोमुहुत्तकालं गमिऊण अधापवत्तकरणं तं ।
पडिसमयं सुज्झंतो अपुव्वकरणं समल्लियइ ॥५०॥

अर्थ- जिसका अन्तर्मुहूर्तमात्र काल है, ऐसे अधःप्रवृत्तकरणको बिताकर यह सातिशय अप्रमत्त जब प्रतिसमय अनन्तगुणी विशुद्धिको लिए हुए अपूर्वकरण जातिके परिणामोंको करता है, तब उसको अपूर्वकरण नामक अष्टम गुणस्थानवर्ती कहते हैं।

Trans. 50. Having passed the Antarmuhūrta in the lower thought activity (adhaḥ karaṇa), becoming purer every instant, the soul takes refuge in the new thought-activity (Apūrva Karaṇa), the 8th spiritual stage.

एदद्धि गुणट्ठाणे विसरिस समयट्ठियेहिं जीवेहिं ।
पुव्वमपत्ता जह्मा होति अपुव्वा हु परिणामा ॥५१॥

अर्थ- इस गुणस्थानमें भिन्नसमयवर्ती जीव, जो पूर्व समयमें कभी भी प्राप्त नहीं हुए थे ऐसे अपूर्व परिणामोंको ही धारण करते हैं, इसलिए इस गुणस्थानका नाम अपूर्वकरण है।

Trans. 51. Because in this spiritual stage in the souls advanced in different points of time, there arise new thought-activities, which were not attained before, (therefore this spiritual stage is called new thought-activity, Apūrva Karaṇa).

भिण्णसमयट्ठियेहिं दु जीवेहिं ण होदि सव्वदा सरिसो ।
करणेहिं एक्कसमयट्ठियेहिं सरिसो विसरिसो वा ॥५२॥

अर्थ- यहाँ पर (अपूर्वकरणमें) भिन्न समयवर्ती जीवोंमें विशुद्ध परिणामोंकी अपेक्षा कभी भी सादृश्य नहीं पाया जाता; किन्तु एक समयवर्ती जीवोंमें सादृश्य और वैसादृश्य दोनों ही पाये जाते हैं।

Trans. 52. In the souls advanced in different points of time there is never the sameness (of purity) of thought-activity. In the souls advanced at the same instant, there may or may not be sameness (of purity of) thought-activity.

अंतोमुहुत्तमेत्ते पडिसमयमसंखलोग परिणामा ।
कमउट्ठा पुव्वगुणे अणुकट्ठी णत्थि णियमेण ॥५३॥

अर्थ- इस गुणस्थानका काल अन्तर्मुहूर्तमात्र है और इसमें परिणाम असंख्यात लोकप्रमाण होते हैं और वे परिणाम उत्तरोत्तर प्रतिसमय समानवृद्धिको लिये हुए हैं तथा इस गुणस्थानमें नियमसे अनुकृष्टिरचना नहीं होती।

Trans. 53. The duration of this stage of new thought-activity (Apūrva Karaṇa) (is) one antarmuhūrta; (in it) the thoughts, (are) innumerable times the innumerable spatial units of the universe; (and they) increase gradually every instant and necessarily (there is) no overlapping (Anu-krṣṭi).

तारिस परिणामद्विय जीवा हु जिणेहिं गलियतिमिरेहिं ।

मोहस्सपुव्वकरणा खबणुबसमणुज्जया भणिया ॥५४॥

अर्थ- अज्ञान अन्धकारसे सर्वथा रहित जिनेन्द्र देवने कहा है कि उक्त परिणामोंको धारण करने वाले अपूर्वकरण गुणस्थानवर्ती जीव मोहनीय कर्मकी शेष प्रकृतियोंका क्षपण अथवा उपशमन करनेमें उद्यत होते हैं।

Trans. 54. Involved (or advanced) in such thoughts, the souls in the new thought-activity (Apūrvā-Karaṇa) are said to be really busy in the destruction or subsidence of the right-conduct-deluding Karmas (Moha). (So it is) said by the Conquerors (Jinas) whose darkness of ignorance has been destroyed.

णिदापयले णट्टे सदि आऊ उवसमंति उवसमया ।

खवयं दुक्के खवया णियमेण खवंति मोहं तु ॥५५॥

अर्थ- जिनके निद्रा और प्रचलाकी बन्ध व्युच्छित्ति हो चुकी है तथा जिनका आयुर्कर्म अभी विद्यमान है, ऐसे उपशम श्रेणीका आरोहण करने वाले जीव शेष मोहनीयका उपशमन करते हैं और जो क्षपक श्रेणीका आरोहण करने वाले हैं, वे नियमसे मोहनीयका क्षपण करते हैं।

Trans. 55. Having acquired freedom from bondage (vyucchitti) of the Karmic matter of sleep and drowsiness (Nidrā and Pracalā) and the age-karma still existing, (the souls in new-thought-activity), (Apūrvā Karaṇa) bring about the subsidence of right-conduct-deluding Karma (Moha) (and are therefore called) subsidentials (Upaśā-maka), but those (who) go up the destructive ladder necessarily destroy the right-conduct-deluding Karma (and are therefore called) Destructive (Kṣapaka), and (the age karma always exists in this ascent on the destructive ladder, (Kṣapaka Śreṇī).

एकहि काल समये संठाणादीहिं जह णिवट्ठति ।

ण णिवट्ठति तहा वि य परिणामेहि मिहो जेहिं ॥५६॥

होंति अणियट्ठिणो ते पडिसमयं जेस्सिमेक्क परिणामा ।

विमलयर झाण हुयवह सिहाहिं णिद्वह कम्मवणा ॥५७॥

अर्थ- अन्तर्मुहूर्तमात्र अनिवृत्तिकरणके कालमें से आदि या मध्य या अन्तके एक समयवर्ती अनेक जीवोंमें जिस प्रकार शरीरकी अवगाहना आदि बाह्य कारणोंसे तथा ज्ञानावरणादिक कर्मके क्षयोपशमादि अन्तरंग कारणोंसे परस्परमें भेद पाया जाता है, उस प्रकार जिन परिणामोंके निमित्तसे परस्परमें भेद नहीं पाया जाता; उनको अनिवृत्तिकरण कहते हैं। अनिवृत्तिकरण गुणस्थानका जितना काल है उतने ही उसके परिणाम हैं। इसलिये उसके कालके प्रत्येक समयमें अनिवृत्तिकरणका एक ही परिणाम होता है तथा ये परिणाम अत्यन्त निर्मल ध्यानरूप अग्निकी शिखाओंकी सहायतासे कर्मवनको भस्म कर देते हैं।

Trans. 56-57. In one and the same instant though (the souls) differ from each other in figure, etc., yet their thoughts which do not differ are (called the Thoughts) of advanced thought-activity (Anivṛtti Karaṇa). In these, only one thought-activity arises in each instant. (These thoughts), by the flames of the fire of very pure concentration are the consumers of the forest of karmas.

धुदकोसुंभयवत्थं होदि जहा सुहमरायसंजुत्तं ।

एवं सुहमकसाओ सुहमसरागोत्ति णादव्वो ॥५८॥

अर्थ- जिस प्रकार धुले हुए कसूमी वस्त्रमें लालिमा-सुखी सूक्ष्म रह जाती है, उसी प्रकार जो जीव अत्यन्त सूक्ष्म राग-लोभ कषायसे युक्त है उसको सूक्ष्मसाम्पराय नामक दशम गुणस्थानवर्ती कहते हैं।

Trans. 58. As a (well) washed red vest retains the slightest (tinge of) redness, so the thought activity with the slightest passion of greed should be known to be (the 10th stage), All but-passionless (Sūkṣma kaṣāya or Sāmparāya).

पुष्पा पुष्पफल्य बादर सुहमगयकिष्टिअणुभागा ।
हीनकमाणंत गुणेण वरादु वरं च हेद्वस्स ॥५६॥

अर्थ- पूर्वस्पर्धकसे अपूर्व स्पर्धकके और अपूर्वस्पर्धकसे बादरकृष्टिके तथा बादरकृष्टिके सूक्ष्मकृष्टिके अनुभाग क्रमसे अनन्तगुणा-अनन्तगुणा हीन हैं और ऊपरके (पूर्व-पूर्वके) जघन्यसे नीचेका (उत्तरोत्तरका) उत्कृष्ट और अपने-अपने उत्कृष्टसे अपना-अपना जघन्य अनन्तगुणा-अनन्तगुणा हीन है।

Trans. 59. In the Pūrva Sparddhaka, Apūrava Sparddhaka, Bādara Kṛṣṭi, Sūkṣma Kṛṣṭi, the fruition (Anubhāga) of each one is infinitely less than that of the immediately preceding one. The greatest fruition in a succeeding part is infinitely less than the least fruition of the immediately preceding part, and the least fruition in any part is infinitely less than the highest fruition in the same part.

अणुलोहं वेदंतो जीवो उवसामगो व खवगो वा ।
सो सुहमसांपराओ जहखादेणूणओ किं चि ॥६०॥

अर्थ- चाहे उपशम श्रेणीका आरोहण करने वाला हो अथवा क्षपकश्रेणीका आरोहण करने वाला हो, परन्तु जो जीव सूक्ष्मलोभके उदयका अनुभव कर रहा है, ऐसा दशवें गुणस्थान वाला जीव यथाख्यात चारित्रसे कुछ ही न्यून रहता है।

Trans. 60. Experiencing the slightest touch of greed, the soul is subsidential or destructive (Upaśāmaka or Kṣapaka in his thought-activity). He is all-but passionless (Sūkṣma Sāmparāya) and just less than (in the state of) perfect right conduct (yathākhyāta).

कदकफलजुदजलं वा सरए सरवाणियं व णिम्मलयं ।
सयलोवसंतमोहो उवसंतकसायओ होदि ॥६१॥

अर्थ- निर्मली फलसे युक्त जलकी तरह अथवा शरद् ऋतुमें ऊपरसे स्वच्छ हो जाने वाले सरोवरके जलकी तरह सम्पूर्ण मोहनीय कर्मके उपशमसे उत्पन्न होने वाले निर्मल परिणामोंको उपशान्त कषाय ग्यारहवाँ गुणस्थान कहते हैं।

Trans. 61. Like the water with the Kataka fruit in it, or the limpid water of a pond in (Śarada-Ritu) the cold season, (the thought-activity, in which all the deluding karmas (Moha karma) have subsided is (the 11th stage) of subsided-delusion (Upaśānta Kaṣāya or Moha).

णिस्सेसखीणमोहो . फलिहामल भायणुदयसमचित्तो ।
खीणकसाओ भण्णदि णिगंथो वीयरयेहिं ॥६२॥

अर्थ- जिस निर्ग्रन्थका चित्त मोहनीय कर्मके सर्वथा क्षीण हो जानेसे स्फटिकके निर्मल पात्रमें रखे हुए जलके समान निर्मल हो गया है उसको वीतराग देवने क्षीणकषाय नामका बारहवें गुणस्थानवर्ती कहा है।

Trans. 62. That possessionless saint (Nir-grantha), all of whose deluding passions (Moha kaṣāya) are destroyed, and whose thought is clear like the water kept in a pure vessel of crystal jewel is said by the non-attached (Conquerors) (to be in the 12th stage of) destroyed-delusion, or delusionless (Kṣīna Kaṣāya).

केवलणाणदिवायरकिरण कलावप्पणासियण्णाणो ।
णवकेवललद्धुग्गम सुजणियपरमप्प ववएसो ॥६३॥

असहाय णाण दंसण सहिओ इदि केवली हु जोगेण ।

जुत्तो त्ति सजोगिजिणो अणाइणिहणारिसे उत्तो ॥६४॥

अर्थ- जिसका केवलज्ञानरूपी सूर्यकी अविभागप्रतिच्छेदरूप किरणोंके समूहसे (उत्कृष्ट अनन्तानन्त प्रमाण) अज्ञान अन्धकार सर्वथा नष्ट हो गया हो और जिसको नव केवललब्धियोंके (क्षायिक-सम्यक्त्व, चारित्र, ज्ञान, दर्शन, दान, लाभ, भोग, उपभोग, वीर्य) प्रकट होनेसे परमात्मा यह व्यपदेश (संज्ञा) प्राप्त हो गया है, वह इन्द्रिय आलोक आदिकी अपेक्षा न रखने वाले ज्ञान दर्शनसे युक्त होनेके कारण केवली और योगसे युक्त रहनेके कारण सयोग तथा घाति कर्मोंसे रहित होनेके कारण जिन कहा जाता है, ऐसा अनादिनिधन आर्ष आगममें कहा है।

Trans. 63-64. He (then is such) whose ignorance has been destroyed by the focussing of the sun of Omniscience (Kevala jñāna), and (who has become entitled to) the name of the "Highest soul" (Paramātmā) by the attainment of the 9 perfect acquisitions (Kevala labdhi).

And (is) with conation and knowledge unassisted by the senses and mind or by subsidence-destruction of karmic matter such and omniscient (Kevalī-Lord) with vibratory activity, as has been in the beginningless and endless scriptures said to be vibratory Omniscient (Sayogī Jina, in the 13th stage).

सीलेसिं संपत्तो गिरुद्ध गिस्सेस आसवो जीवो ।

कम्मरय विप्पमुक्को गयजोगो केवली होदि ॥६५॥

अर्थ- जो अठारह हजार शीलके भेदोंका स्वामी हो चुका है और जिसके कर्मोंके आनेका द्वाररूप आस्रव सर्वथा बन्द हो गया है तथा सत्त्व और उदयरूप अवस्थाको प्राप्त कर्मरूप रजकी सर्वथा निर्जरा होनेसे जो उस कर्मसे सर्वथा मुक्त होनेके सम्मुख है, उस योगरहित केवलीको चौदहवें गुणस्थानवर्ती अयोग केवली कहते हैं।

Trans. 65. (He who) has attained Lordship of Peaceful perfection, whose inflow (Āsrava) is wholly stopped (who is about to be) entirely freed from particles of karmic dust (and) whose vibratory activity has ceased-(such a perfect) soul is a non vibrating (Ayoga) Omniscient Lord (Kevalī, in the 14th stage).

सम्मत्तुप्पत्तीये सावय-विरदे अणंत कम्मसे ।

दंसणमोहक्खवगे कसाय उबसामगे य उवसंते ॥६६॥

खवगे य खीणमोहे जिणेसु दव्वा असंखगुणिकमा ।

तव्विवरीया काला संखेज्जगुणिकमा होंति ॥६७॥

अर्थ- सम्यक्त्वोत्पत्ति अर्थात् सातिशय मिथ्यादृष्टि और सम्यग्दृष्टि, श्रावक, विरत, अनन्तानुबन्धी कर्मका विसंयोजन करनेवाला, दर्शनमोहनीय कर्मका क्षय करनेवाला, कषायोंका उपशम करनेवाला ८-९-१०वें गुणस्थानवर्ती जीव, उपशान्तकषाय, कषायोंका क्षपण करने वाले ८-९-१०वें गुणस्थानवर्ती जीव, क्षीणमोह, सयोगी और अयोगी दोनों प्रकारके जिन, इन ग्यारह स्थानोंमें द्रव्यकी अपेक्षा कर्मोंकी निर्जरा क्रमसे असंख्यातगुणी-असंख्यातगुणी अधिक-अधिक होती जाती है और उसका काल इसके विपरीत है अर्थात् क्रमसे उत्तरोत्तर संख्यातगुणा-संख्यातगुणा हीन हैं।

Trans. 66-67. At the rise of right belief (4th stage, of vowless right belief), in the layman (Śrāvaka, 5th stage of partial vows), in the vowful (virata in the 6th and 7th stages of imperfect and perfect vows), in one who transforms the 4 error-feeling passions (into the remaining 21 kinds of passions), in the destroyer of the right-belief-deluding karma, in one who brings about the subsidence of passions (in 8th, 9th and 10th stages, of new thought-activity, advanced thought-activity, and all but passionlessness in the subsidential ladder), in the subsided delusion, (Upasāma Śreṇī, the 11th stage, of Upasānta Moha), in the destroyer of passions (in the 8th and 9th and 10th stages of the destructive ladder (Kṣapaka Śreṇī), in delusion-less the (12th stage Kṣīṇa-Moha), in the Conquerors Jinās- i.e., the

Omniscient Lords on their own Place (Svasthāna Kevalī), and in overflow Samudghāta Kevalī; in these (11) counting Jina as two (vibratory and non-vibratory); the shedding of karmic matter is innumerable-fold in their order, (i.e., it is innumerable fold in each as compared with the immediately preceding stage). On the contrary, the time (taken in shedding) is numerable-fold (less) in the same order.

अट्टविहकम्मवियला सीदीभूदा णिरंजणा णिच्चा ।

अट्टगुणा किदकिच्चा लोयग्गणिवासिणो सिद्धा ॥६८॥

अर्थ- जो ज्ञानावरणादि अष्ट कर्मोंसे रहित हैं, अनन्त सुखरूपी अमृतके अनुभव करने वाले शान्तिमय हैं, नवीन कर्म बन्धको कारणभूत मिथ्यादर्शनादि भावकर्म रूपी अंजनसे रहित हैं, नित्य हैं, सम्यक्त्व, ज्ञान, दर्शन, वीर्य, अव्याबाध, अवगाहन, सूक्ष्मत्व, अगुरुलघु ये आठ मुख्य गुण जिनके प्रकट हो चुके हैं, कृतकृत्य हैं- जिनको कोई कार्य करना बाकी नहीं रहा है, लोकके अग्रभागमें निवास करने वाले हैं, उनको सिद्ध कहते हैं।

Trans. 68. Free from 8 kinds of karmas, all-blissful, undefiled by karmic inflow, ever-lasting, possessed of 8 qualities, having accomplished all that was to be accomplished, (and) abiding at the summit of the universe- (such souls are) the liberated (siddhas).

सदसिव संखे मक्कडि बुद्धो णेयाइयो य वेसेसी ।

ईसरमंडलिदंसण विदूसणदं कयं एदं ॥६९॥

अर्थ- सदाशिव, सांख्य, मस्करी, बौद्ध, नैयायिक और वैशेषिक, कर्तवादी (ईश्वरको कर्ता माननेवाले), मण्डली इनके मतोंका निराकरण करने के लिये ये विशेषण दिये हैं।

Trans. 69. These (qualities of the liberated-Siddhas) are given to refute the doctrines of the following sects:-

1. Sadāśiva, 2. Sāṅkhya, 3. Maskarī 4. Baudha, 5. Naiyāyika, 6. Īśwara, 7. Vaiśeṣika, and Maṇḍalika

२. जीवसमास (SOUL CLASSES)

जेहिं अणेया जीवा णज्जंते बहुविहा वि तज्जादी ।

ते पुण संगहिदत्था जीवसमासा त्ति विण्णेया ॥७०॥

अर्थ- जिनके द्वारा अनेक जीव तथा उनकी अनेक प्रकारकी जाति जानी जाँये उन धर्मोंको अनेक पदार्थोंका संग्रह करने वाला होनेसे जीवसमास कहते हैं, ऐसा समझना चाहिये।

Trans. 70. Those (common characteristics) by which many (i.e., all mundane) souls, though of many distinctions and kinds, may be distinguished by being collected into groups, should be known as soul-classes (Jīva Samāsa).

तसचदुजुगाण मज्झे अवि रुद्धेहिं जुदजादिकम्मुदये ।

जीवसमासा होंति हु तब्भवसारिच्छ सामण्णा ॥७१॥

अर्थ- त्रस-स्थावर, बादर-सूक्ष्म, पर्याप्त-अपर्याप्त और प्रत्येक-साधारण, इन चार युगलोंमेंसे अवि रुद्ध त्रसादि कर्मोंसे युक्त जाति नामकर्मका उदय होनेपर जीवोंमें होने वाले ऊर्ध्वतासामान्य रूप या तिर्यक् सामान्यरूप धर्मोंको जीवसमास कहते हैं।

Trans. 71. Owing to the operation of the Genus (Jāti, sub-class), along with four compatible sub-classes (one each of) the 4 pairs of mobile (Trasa), and immobile (Sthāvara), gross (Vādara) and fine (Sūkṣma), developable (Paryāpta) and undevelopable (Aparyāpta), one body one soul (Pratyeka) and

one body many souls (Sādhāraṇa) sub classes of body making (Nāma) karma, the soul classes (Jīva Samāsa) certainly have common connotations in space and time.

बादर सुहुमेइंदिय वितिचउरिंदिय असणिसण्णी य ।

पज्जत्तापज्जता एवं ते चोदसा होंति ।।७२।।

अर्थ- एकेन्द्रियके दो भेद हैं- बादर और सूक्ष्म तथा विकलत्रय- द्वीन्द्रिय, त्रीन्द्रिय और चतुरिन्द्रिय। पंचेन्द्रियके दो भेद हैं- संज्ञीपंचेन्द्रिय और असंज्ञीपंचेन्द्रिय। इस तरह ये सातों ही प्रकारके जीव पर्याप्त और अपर्याप्त दोनों ही तरहके हुआ करते हैं इसलिये जीवसमासके सामान्यतया सब मिलकर चौदह भेद होते हैं।

Trans. 72. The one sensed souls, fine and gross, the 2, 3, and 4 sensed, (the five sensed), irrational and rational- all these being developable and non developable make 14 (classes).

भूआउतेउवाऊ णिच्चचदुग्गदिणिगोदधूलिदरा ।

पत्तेयपदिट्ठिदरा तस पण पुण्णा अपुण्णदुगा ।।७३।।

अर्थ- पृथ्वी, जल, तेज, वायु, नित्यनिगोद, इतरनिगोद, इन छहके बादर सूक्ष्मके भेदसे बारह भेद होते हैं तथा प्रत्येकके दो भेद- एक प्रतिष्ठित दूसरा अप्रतिष्ठित। त्रसके पाँच भेद- द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, असंज्ञी पंचेन्द्रिय और संज्ञी पंचेन्द्रिय। इस तरह सब मिलाकर उन्नीस भेद होते हैं। ये सभी भेद पर्याप्त, निर्वृत्यपर्याप्त, लब्ध्यपर्याप्त के भेदसे तीन-तीन प्रकारके होते हैं, इसलिये उन्नीसका तीनके साथ गुणा करनेपर जीवसमासके ५७ भेद होते हैं।

Trans. 73. (Souls having as their bodies), Earth, water, fire, and air, (vegetable-bodied souls in) Nitya-nigoda, Caturgati-Nigoda (or Itara-nigoda), (each of these six being) gross, (or) otherwise (i.e., fine-bodied), individual-souled, (Pratyeka). Vegetable souls (having either) host-souls (Pratiṣṭhita) or not (Itara, or Apratiṣṭhita i.e., non- host-individual-souled), the five mobile souls, all these nineteen being either developable (or) non-developable, (the latter again being) of two kinds. (Thus there are fifty-seven soul-classes).

ठाणेहिं वि जोणीहिं वि देहोग्गाहण कुलाण भेदेहिं ।

जीवसमासा सव्वे परुविदव्वा जहाकमसो ।।७४।।

अर्थ- स्थान, योनि, शरीरकी अवगाहना, और कुलोंके भेद इन चार अधिकारोंके द्वारा सम्पूर्ण जीवसमासोंका क्रमसे निरूपण करना चाहिये।

Trans. 74. All the soul classes have (now) to be described, in the order of (their) varieties (Sthāna), birth places or nuclei (Yoni), sizes of bodies (Dehāvagāhana), and the kind of bodily materials (Kulabheda).

सामण्णजीव तसथावरेसु इगिविगलसयलचरिमदुगे ।

इंदियकाये चरिमस्स य दुति चदुपणग भेदजुदे ।।७५।।

अर्थ- सामान्यसे (द्रव्यार्थिकनय से) जीवका एक ही भेद है, क्योंकि 'जीव' कहनेसे जीवमात्र का ग्रहण हो जाता है। इसलिये सामान्यसे जीवसमासका एक भेद, त्रस और स्थावरकी अपेक्षासे दो भेद, एकेन्द्रिय, विकलेन्द्रिय, सकलेन्द्रियकी अपेक्षा तीन भेद, यदि पंचेन्द्रियके दो भेद कर दिये जायें तो जीवसमासके एकेन्द्रिय, विकलेन्द्रिय, संज्ञी, असंज्ञी इस तरह चार भेद होते हैं। इन्द्रियोंकी अपेक्षा पाँच भेद हैं, अर्थात् एकेन्द्रिय, द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, पंचेन्द्रिय। पृथ्वी, जल, अग्नि, वायु, वनस्पति ये पाँच स्थावर और एक त्रस इस प्रकार कायकी अपेक्षा छह भेद हैं। यदि पाँच स्थावरोंमें त्रसके विकल और सकल इस तरह दो भेद करके मिला दिये जायें तो सात भेद होते हैं और विकल असंज्ञी, संज्ञी इस प्रकार तीन भेद करके मिलानेसे आठ भेद होते हैं। द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, पंचेन्द्रिय, इस तरह चार भेद करके

मिलानेसे नव भेद होते हैं और द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, असंज्ञी, संज्ञी इस तरह पाँच भेद मिलानेसे दश भेद होते हैं।

Trans. 75. (Taking together all worldly souls) collectively (there is one) soul stratum variety. When divided into two varieties, they are (mobile and immobile) (Considered as three) one (sensed), incomplete- (sensed i.e., two to four- sensed); and complete-(sensed, i.e., five-sensed);

(As four, the just preceding two and) the last (divided into) two (i.e. irrational and rational);

(As five. according to) senses (from one-sensed to five-sensed);

(As six according to), (embodiments) (i.e. earth, water, fire, air vegetable, and mobile);

(As seven, the first five of the just preceding, and the two classes) of the last (i.e. the irrational and rational mobile);

(As eight, five Immobiles and) three (mobiles, i.e. incomplete sensed, and irrational and rational five sensed);

(As nine, the five immobiles and the) four (mobiles, i.e. incomplete-sensed and irrational and rational five sensed);

(As ten five immobiles and the) five (mobiles, i.e. two, three. four irrational five sensed and rational five sensed). (These are the ten varieties.)

पणजुगले तससहिये तसस्स दुत्तिचदुरपणगभेदजुदे ।

छहुगपत्तेय तम्हि य तसस्स तिय चदुरपणगभेदजुदे ।।७६।।

अर्थ- पाँच स्थावरोंके बादर सूक्ष्मकी अपेक्षा पाँच युगल होते हैं। इनमें त्रस सामान्यका एक भेद मिलानेसे ग्यारह भेद जीवसमासके होते हैं। तथा इन्हीं पाँच युगलोंमें त्रसके विकलेन्द्रिय, सकलेन्द्रिय, दो भेद मिलानेसे बारह और त्रसके विकलेन्द्रिय, संज्ञी, असंज्ञी, इस प्रकार तीन भेद मिलानेसे तेरह और द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, पंचेन्द्रिय ये चार भेद मिलानेसे चौदह तथा द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, असंज्ञी, संज्ञी ये पाँच भेद मिलानेसे पन्द्रह भेद जीवसमासके होते हैं। पृथ्वी, अप, तेज, वायु नित्यनिगोद, इतरनिगोद इनके बादर सूक्ष्मकी अपेक्षा छह युगल और प्रत्येक वनस्पति, इनमें त्रस के उक्त विकलेन्द्रिय, असंज्ञी, संज्ञी ये तीन भेद मिलानेसे सोलह और द्वीन्द्रियादि चार भेद मिलानेसे सत्रह तथा पाँच भेद मिलानेसे अठारह भेद होते हैं।

Trans. 76. (Considered as eleven) the pair of five (immobiles, gross and fine) with mobiles;

(As twelve, the ten immobiles), and the two (kinds) (of mobiles), (i.e., incomplete sensed and complete sensed),

(As thirteen, the ten immobiles and the three kinds of mobiles, i.e. incomplete sensed, irrational and rational complete sensed),

(As fourteen, the ten immobiles and the) four (kinds of mobiles, i.e. two to five- sensed);

(As fifteen, the ten immobiles) and the five kinds (of mobiles, i.e. two, three and four-sensed and irrational and rational five-sensed).

(As sixteen, the pair of six immobiles, i.e. gross and fine, earth, water, fire, air, Nitya-Nigoda and Itara-Nigoda souls) individual-souled (vegetables) and three (kinds) of mobiles, (i.e., incomplete-sensed), irrational and rational complete sensed.

(As seventeen, the thirteen immobiles and) the four (kinds of mobiles, i.e. two to five-sensed) ;

(As eighteen, the thirteen imobiles) with five knids of (mobiles, i.e. two, three, four sensed) and irrational and rational five-sensed). They have (the eighteen) varieties.

सगजुगलद्वि तसस्स य पणभंगजुदेसु होति उणवीसा ।

एयादुणवीसो त्ति य इगिबितिगुणिदे हवे ठाणा ॥७७॥

अर्थ- पृथ्वी, अप, तेज, वायु, नित्यनिगोद, इतरनिगोदके बादर-सूक्ष्मकी अपेक्षा छह युगल और प्रत्येकका प्रतिष्ठित-अप्रतिष्ठितकी अपेक्षा एक युगल मिलाकर सात युगलोंमें त्रसके उक्त पाँच भेद मिलानेसे जीवसमासके उन्नीस भेद होते हैं। इस प्रकार एकसे लेकर उन्नीस तक जो जीवसमासके भेद गिनाये हैं, इनका एक, दो, तीनकेसाथ गुणा करनेपर क्रमसे उन्नीस, अड़तीस, सत्तावन, जीवसमासके अवान्तर भेद होते हैं।

Trans. 77. By adding the five kinds of mobiles, (i.e. two three and four-sensed and irrational and rational five-sensed) to the pair of the seven (immobles, i.e. the six gross and fine, earth-bodied, water-bodied, fire-bodied, air-bodied, Nitya-Nigoda and Itara- Nigoda souls, and the seventh pair of host-individual-souled and non-host-individual-souled-vegetable souls), they become nineteen. These one to nineteen (varieties) multiplied by one, two and three become (nineteen, thirty-eight, and fifty- seven) varieties (respectively).

सामण्णेण तिपंती पढमा विदिया अपुण्णगे इदरे ।

पज्जत्ते लद्धि अपज्जत्तेऽपढमा हवे पंती ॥७८॥

अर्थ- उक्त उन्नीस भेदोंकी तीन पंक्ति करनी चाहिये। उसमें प्रथम पंक्ति सामान्यकी अपेक्षासे है, दूसरी पंक्ति अपर्याप्त तथा पर्याप्तकी अपेक्षासे है और तीसरी पंक्ति पर्याप्त, निर्वृत्यपर्याप्त तथा लब्ध्यपर्याप्तकी अपेक्षासे है।

Trans. 78. (These nineteen varieties should be written in) three rows, the first (to be multiplied) by (soul in) general, the second by non-developable, and the other, (i.e. developable) and the third row by developable, potentially developable (Nirvṛtṭyaparyāpta) and absolutely non developable (Labdhyaparyāpta).

इगिवण्णं इगिविगले असण्णि सण्णिगय जलथल खगाणं ।

गब्भभवे सम्मुच्छे दुतिगं भोगथल खेचरे दो दो ॥७९॥

अर्थ- जीवसमासके उक्त ५७ भेदोंमेंसे पंचेन्द्रियके छह भेद निकालनेसे एकेन्द्रिय, विकलेन्द्रिय सम्बन्धी ५१ भेद शेष रहते हैं। कर्मभूमिमें होने वाले पंचेन्द्रिय तिर्यचोंके तीन भेद हैं, जलचर, स्थलचर, नभश्चर। ये तीनों ही तिर्यच संज्ञी और असंज्ञी होते हैं तथा गर्भज और सम्मूर्छन होते हैं; परन्तु गर्भजोंमें पर्याप्त और निर्वृत्यपर्याप्त ही होते हैं, इसलिये गर्भजके बारह भेद और सम्मूर्छनोंमें पर्याप्त, निर्वृत्यपर्याप्त और लब्ध्यपर्याप्त तीनों ही भेद होते हैं, इसलिये सम्मूर्छनोंके अठारह भेद, सब मिलाकर पंचेन्द्रिय कर्मभूमिज तिर्यचोंके तीस भेद होते हैं। भोगभूमिमें पंचेन्द्रिय तिर्यचोंके स्थलचर और नभश्चर दो ही भेद होते हैं। और ये दोनों ही पर्याप्त तथा निर्वृत्यपर्याप्त ही होते हैं। इसलिये भोगभूमिज तिर्यचोंके चार भेद और उक्त कर्मभूमिसम्बन्धी तीस भेद उक्त ५१ भेदोंमें मिलानेसे तिर्यगगति सम्बन्धी सम्पूर्ण जीवसमासके ८५ भेद होते हैं। भोगभूमिमें जलचर, सम्मूर्छन तथा असंज्ञी जीव नहीं होते।

Trans. 79. Fifty one (soul-classes, composed) of one (sensed) and incomplete (sensed-souls), two (classes) of souls of uterine birth and three (of) spontaneous generation, (which may be either) rational or irrational, and either water-inhabiting, earth-inhabiting or Air-flying (five-sensed sub-human beings) of Karma-bhūmi work-region, and two of each of the earth-inhabiting and Air-flying Bhoga-bhūmi enjoyment-region (5- sensed sub-human).

अज्जव मलेच्छ मणुए तिदु भोगभूमिजे दो दो ।

सुरणिरये दो दो इदि जीवसमासा हु अडणउदी ॥८०॥

अर्थ- आर्यखण्डमें पर्याप्त, निर्वृत्यपर्याप्त, लब्ध्यपर्याप्त, तीनों ही प्रकारके मनुष्य होते हैं। स्लेच्छखण्डमें लब्ध्यपर्याप्तको छोड़कर दो प्रकारके ही मनुष्य होते हैं। इसी प्रकार भोगभूमि, कुभोगभूमि, देव, नारकियोंमें भी दो-दो ही भेद होते हैं। इस तरह सब मिलाकर जीवसमासके ६८ भेद हुए।

Trans. 80. Three and two (classes) of the human souls in the religious (Ārya) and non-religious (Mleccha) regions respectively, two of each of the enjoyment regions, proper (Bhoga-bhūmi) and improper (Kubhoga-bhūmi) respectively, two of each of the celestial and Hellish beings.

Thus soul classes are in reality Ninety-eight. See. Table overleaf.

संखावत्तय जोणी कुम्मुण्णय वंसपत्त जोणी य ।

तत्थ य संखावत्ते णियमा दु विवज्जदे गब्भो ॥८१॥

अर्थ- आकृति योनिके तीन भेद हैं। १. शंखावर्त २. कूर्मोन्नत, ३. वंशपत्र। इनमें से शंखावर्त योनिमें गर्भ नियमसे वर्जित है।

Trans. 81. Nucleus or womb (Yoni), (is of three kinds); conch-circled (Shankhā-varta, with circular gradations like the inside of a conch), tortoise high (Kūrmonnata, high like the back of tortoise) and bamboo-leaf (Vamśapatra), (long like the leaf of a bamboo). Of these in the conch lide circular nucleus, as a rule, Uterine birth is denied.

कुम्मुण्णय जोणीये तित्थयरा दुविह चक्कवट्टी य ।

रामा वि य जायंते सेसाए सेसगजणो दु ॥८२॥

अर्थ- कूर्मोन्नत योनिमें तीर्थकर, चक्रवर्ती, अर्धचक्री तथा बलभद्र एवं अपि शब्दकी सामर्थ्यसे अन्य भी महान् पुरुष उत्पन्न होते हैं। तीसरी वंशपत्र योनिमें साधारण पुरुष ही उत्पन्न होते हैं।

Trans. 82. In the tortoise-high nucleus, Tirthankaras, the two kinds of Cakravartīs and also Balbhadrās are born. In the remaining (bamboo-leaf like nucleus) other human beings (are born).

जम्मं खलु सम्मुच्छण गब्भुववादा दु होदि तज्जोणी ।

सच्चित्त सीद संउड सेदर मिस्सा य पत्तेयं ॥८३॥

अर्थ- जन्म तीन प्रकारका होता है, सम्मूर्च्छन, गर्भ और उपपाद तथा सचित, शीत, संवृत, और इनसे उत्पत्ती अचित, उष्ण, विवृत तथा तीनोंकी मिश्र, इस तरह तीनों ही जन्मोंकी आधारभूत नौ गुणयोनि हैं। इनमेंसे यथासम्भव प्रत्येक योनिको सम्मूर्च्छनादि जन्मके साथ लगा लेना चाहिये।

Trans. 83. Definitely, birth is (either) spontaneous (Sammūrchana), uterine, (or) instantaneous (Upapāda). Their nuclei (are) (1) Living matter, (2) cold, (3) covered, their opposites, and the combinations of each pair. (For details see Tattvārtha sūtra Chapter II, Sūtra 31, 32, S.B.J. Vol. II, by Mr. Jaini, pp. 70, 71, 72.)

पोत जरायुज अंडज जीवाणं गब्भ देवणिरयाणं ।

उववादं सेसाणं सम्मुच्छणयं तु णिदिद्धं ॥८४॥

अर्थ- पोत-प्रावरणरहित और उत्पन्न होते ही जिनमें चलने फिरने आदिकी सामर्थ्य हो, जैसे सिंह बिल्ली, हिरण आदि। जरायुज-जो जेरके साथ उत्पन्न होते हों। अण्डज-जो अण्डेसे उत्पन्न हों। इन तीन प्रकारके जीवोंका गर्भ जन्म ही होता है। देव नारकियोंका उपपाद जन्म ही होता है, शेष जीवोंका सम्मूर्च्छन जन्म ही होता है।

Trans. 84. For Unumbilical (Pota), Umbilical (Jarāyuja), and Incubatory (Aṇḍaja) souls, uterine birth; for Celestial and Hellish beings, instantaneous rise, (and) for the rest, spontaneous generation, have been declared. (For com. see Tattvārtha sūtra, S.B.J. Vol. II. Chapter II Sūtra 33-35).

उववादे अच्चित्तं गब्भे मिस्सं तु होदि सम्मुच्छे ।

सच्चित्तं अच्चित्तं मिस्सं च य होदि जोणी हु ॥८५॥

अर्थ- उपपाद जन्मकी अचित्त ही योनि होती है, गर्भ जन्मकी मिश्र योनि ही होती है तथा सम्मूर्छन जन्मकी सचित्त, अचित्त, मिश्र तीनों तरहकी योनि होती हैं।

Trans. 85. The nucleus for instantaneous rise, is non-living matter; for uterine births, the combination (of living and dead matter); (and that) for spontaneous generation is living matter, non-living matter or their combination.

उववादे सीदुसणं सेसे सीदुसणमिस्सयं होदि ।

उववादेयक्खेसु य संउड वियलेसु विउलं तु ॥८६॥

अर्थ- उपपाद जन्ममें शीत और उष्ण दो प्रकारकी योनि होती है। शेष गर्भ और सम्मूर्छन जन्मोंमें शीत, उष्ण, मिश्र तीनों ही योनि होती हैं। उपपाद जन्मवालोंकी तथा एकेन्द्रिय जीवोंकी योनि संवृत्त ही होती है और विकलेन्द्रियोंकी विवृत ही होती है।

Trans. 86. For instantaneous rise (Upapāda) cold or hot, (and) for the rest, cold, hot, or their combination; for souls who take instantaneous rise and for one-sensed beings, the covered (saṁvṛata, and for incomplete-sensed (two to four-sensed) souls, exposed (Vivṛta) is (the Nucleus).

गब्भज जीवाणं पुण मिस्सं णियमेण होदि जोणी हु ।

सम्मुच्छण पंचक्खे वियलं वा विउल जोणी हु ॥८७॥

अर्थ- गर्भज जीवोंकी योनि नियमसे मिश्र- संवृत्त-विवृतकी अपेक्षा मिश्रित ही होती है। पंचेन्द्रिय सम्मूर्छन जीवोंकी विकलेन्द्रियोंकी तरह विवृत योनि ही होती है।

Trans. 87. Again for the soul taking uterine-birth, the combination (of covered and exposed) is the nucleus by rule. For the five-sensed soul of spontaneous generation, only the exposed is the nucleus like (that of) the incomplete-sensed (soul).

सामण्णेण य एवं णव जोणीओ हवन्ति वित्थारे ।

लक्खाण चदुरसीदी जोणीओ हन्ति णियमेण ॥८८॥

अर्थ- पूर्वोक्त क्रमानुसार सामान्यसे योनियोंके नियमसे नव ही भेद होते हैं। विस्तारकी अपेक्षा इनके चौरासी लाख भेद होते हैं।

Trans. 88. Generally thus, there are nine nuclei (but) in detail, there are by rule eighty-four Lacs of Nuclei.

णिच्चिदरधादुसत्त य तरुदस वियलिंदियेसु छच्चेव ।

सुरणिरय तिरियचउरो चोदस मणुए सदसहस्सा ॥८९॥

अर्थ- नित्यनिगोद, इतरनिगोद, पृथ्वी, जल, अग्नि, वायु इनमें से प्रत्येककी सात-सात लाख, तरु अर्थात् प्रत्येक वनस्पतिकी दश लाख, द्वीन्द्रिय, त्रीन्द्रिय, चतुरन्द्रिय इनमेंसे प्रत्येककी दो-दो लाख अर्थात् विकलेन्द्रियकी सब मिलाकर छह लाख, देव, नारकी, तिर्यच पंचेन्द्रिय प्रत्येककी चार-चार लाख, मनुष्यकी चौदह लाख, सब मिलाकर ८४ लाख योनि होती है।

Trans. 89. (There are) seven lacs (nuclei) (for births) in Nitya (Nigoda), Itara (Nigoda), and (the four) embodiments (dhātu), (earth-bodied, water-bodied, fire-bodied and air-bodied), (each); ten (lacs) (in individual-souled) vegetables; and only; six (lacs) in incomplete-sensed; four (lacs) in celestial, hellish, and sub-human (five-sensed) (each), and fourteen (lacs) in human.

For enumeration of the nuclei see Tattvārtha. Sūtra, S.B.J. Chapter II Sūtra 32.

उववादा सुरणिरया गब्भजसम्मच्छिमा हु णरतिरिया ।

सम्मच्छिमा मणुस्साऽपज्जत्ता एयवियलक्खा ॥६०॥

अर्थ- देवगति और नरकगतिमें उपपाद जन्म ही होता है। मनुष्य तथा तिर्यचोंमें यथासम्भव गर्भ और सम्मूर्छन दोनों ही प्रकारका जन्म होता है; किन्तु लब्ध्यपर्याप्तक मनुष्य और एकेन्द्रिय विकलेन्द्रियोंका सम्मूर्छन जन्म ही होता है।

Trans. 90. Instantaneous rise appertains to celestial and hellish souls; uterine birth and spontaneous generation to human and sub human souls; and one (sensed) and incomplete sensed (sub-human-souls) have spontaneous generation (only).

पंचक्ख तिरिक्खाओ गब्भजसम्मच्छिमा तिरिक्खाणं ।

भोगभुमा गब्भभवा णरपुण्णा गब्भजा चेव ॥६१॥

अर्थ- कर्मभूमिया पंचेन्द्रिय तिर्यच गर्भज तथा सम्मूर्छन ही होते हैं। तिर्यचोंमें जो भोगभूमिया तिर्यच हैं वे गर्भज ही होते हैं और जो पर्याप्त मनुष्य हैं वे भी गर्भज ही होते हैं।

Trans. 91. Five-sensed sub-human souls are either of Uterine birth or of spontaneous generation; sub-human souls of the enjoyment region (bhoga-bhūmi) (are all of Uterine birth; and developable human souls also are always of uterine birth.

उववाद गब्भजेसु य लद्धि अपज्जत्तगा ण णियमेण ।

णरसम्मच्छिम जीवा लद्धि अपज्जत्तगा चेव ॥६२॥

अर्थ- उपपाद और गर्भ जन्म वालोंमें नियमसे लब्ध्यपर्याप्तक नहीं होते और सम्मूर्छन मनुष्य नियमसे लब्ध पर्याप्तक ही होते हैं।

Trans. 92. Absolutely non-developable souls, by rule, never have instantaneous rise or uterine birth, while human souls of spontaneous generation are only absolutely non-developable.

णेइया खलु संढा णरतिरिये तिण्णि होंति सम्मुच्छा ।

संढा सुरभोगभुमा पुरिसिच्छी वेदगा चेव ॥६३॥

अर्थ- नारकियोंका द्रव्यवेद तथा भाववेद नपुंसक ही होता है। मनुष्य और तिर्यचोंके तीनों ही (स्त्री, पुरुष, नपुंसक) वेद होते हैं, सम्मूर्छन मनुष्य और तिर्यच नपुंसक ही होते हैं। देव और भोगभूमियोंके पुरुषवेद और स्त्रीवेद ही होता है।

Trans. 93. Hellish souls are invariably bi-sexual or herma-phrodite, and sub-human souls are (of all) the three (sexes, e.g. masculine, feminine and common); (human and sub human) souls of spontaneous generation are of common sex; the celestial souls and the inhabitants of enjoyment region, (Bhoga-bhūmi) are either of masculine or of feminine sex.

सुहमणिगोद अपज्जत्तयस्स जादस्स तदियसमयम्हि ।

अंगुलअसंखभागं जहण्णमुक्कस्सयं मच्छे ॥६४॥

अर्थ- उत्पन्न होनेसे तीसरे समयमें सूक्ष्मनिगोदिया लब्ध्यपर्याप्तक जीवकी घनांगुलके असंख्यातवें भागप्रमाण शरीरकी जघन्य अवगाहना होती है और उत्कृष्ट अवगाहना मत्स्यके होती है।

Trans 94. The size of the body of a fine-bodied and non-developable (Nigoda) soul in the third instant after it has taking birth in its nucleus (i.e., after its vighrahagati or passage for transmigration) is an innumerable part of one (cubic) finger (aṅguli). This is the minimum (bodily size). The maximum size is found in the fish born in the last and the biggest ocean called Svayambhūramāṇa of the world.

साहिय सहस्समेकं वारं कोसूणमेकमेकं च ।
जोयण सहस्सदीहं पम्मे वियले महामच्छे ॥६५॥

अर्थ- पद्म (कमल) द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, महामत्स्य इनके शरीरकी अवगाहना क्रमसे कुछ अधिक एक हजार योजन, बारह योजन, तीन कोश, एक योजन, हजार योजन लम्बी समझनी चाहिये।

Trans. 95. Amongst one-sensed beings the lotus (plant of Svayambhūramāṇa, the last continent is) a little over one thousand Yojanas, high and one (Yojana) in diameter, (amongst the two-sensed, incomplete-sensed souls) (the conch of the Svayambhūramāṇa ocean) is twelve (Yojans long), the red Scorpion, a three-sensed soul of the Svayambhūramāṇa continent is (one krośa less one (Yojana long; the Black Bee, a four sensed soul of the above continent is) one Yojana Long and amongst the five sensed souls the Great fish (Mahā Matsya of the same ocean) (is) one thousand Yojanas (long).

वितिचपपुण्ण जहण्णं अणुधरी कुंथुकाण मच्छीसु ।
सिच्छयमच्छे विंदंगुल संखं संखगुणिदकमा ॥६६॥

अर्थ- द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, पंचेन्द्रिय पर्याप्त जीवोंमें अनुंधरी, कुन्थु, काणमक्षिका, सिक्थक मत्स्यके क्रमसे जघन्य अवगाहना होती है। इसमें प्रथमकी घनांगुलके संख्यातवें भाग प्रमाण है और पूर्व पूर्वकी अपेक्षा उत्तर-उत्तरकी अवगाहना क्रमसे संख्यातगुणी-संख्यातगुणी अधिक-अधिक है।

Trans. 96. The minimum (size) of the developable two (sensed soul, as in the case of Anundhari, (is) a certain numerable part of one cubic finger, (and that of the) three- (sensed) four (sensed) and five (sensed soul) (as in the cases of) Kunthu, Kāṇa Maṣṣikā (a certain earfly (and) sikthaka matsya (a certain tiny sort of fish) (is) respectively numerable times the bodily sizes of the immediately preceding one.

सुहमणिवाते आभूवाते आपुणिपदिद्धिदं इदरं ।
वितिचपमादित्ताणं एयाराणं तिसेढीय ॥६७॥

अर्थ- एक कोठेमें सूक्ष्मनिगोदिया वायुकाय, तेजकाय, जलकाय, पृथिवीकाय इनका क्रमसे स्थापन करना। इसके आगे दूसरे कोठेमें बादर वायुकाय, तेजकाय, जलकाय, पृथिवीकाय, निगोदिया और प्रतिष्ठितप्रत्येक इनका क्रमसे स्थापन करना। इसके आगे तीसरे कोठेमें अप्रतिष्ठितप्रत्येक, द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, पंचेन्द्रियोंका क्रमसे स्थापन करना। इसके आगे उक्त सोलह स्थानोंमेंसे आदिके ग्यारह स्थानोंकी तीन श्रेणी माँडनी चाहिए।

Trans. 97. (Out of the sixteen non-developable). Fine-nigoda, air, fire, water and earth (bodied souls; gross air, fire, water, earth-bodied and nigoda souls), host-individual-souled and the other (i.e., non-host-individual-souled vegetables); and the two, three, four and five (sense souls); three rows should be made by the (first) eleven.

अपदिद्धिदं पत्तेयं वितिचपतिचवि अपदिद्धिदं सयलं ।
तिचवि अपदिद्धिदं च य सयलं बादाल गुणिदकमा ॥६८॥

अर्थ- छठे कोठेमें अप्रतिष्ठित प्रत्येक, द्वीन्द्रिय, त्रीन्द्रिय, चौइन्द्रिय, पंचेन्द्रियका स्थापन करना। इसके आगेके कोठेमें क्रमसे त्रीन्द्रिय, चौइन्द्रिय, द्वीन्द्रिय, अप्रतिष्ठितप्रत्येक और पंचेन्द्रियका स्थापन करना। इससे आगेके कोठेमें त्रीन्द्रिय, चौइन्द्रिय, द्वीन्द्रिय, अप्रतिष्ठितप्रत्येक तथा पंचेन्द्रियका क्रमसे स्थापन करना। इन सम्पूर्ण चौसठ स्थानोंमें ब्यालीस स्थान उत्तरोत्तर गुणितक्रम हैं।

Trans. 98. Non-host-individual souled, two, three, four and five (sensed developable souls, should be placed in one line, then) three, four and two (sensed souls, non-host- individual-souled vegetables and) full (sensed-souls) non-developable, should be placed in another line and then three, four, (and) two (sensed), non-host-individual- souled and five (sensed developable souls should be placed in a

third line) (out of the above sixty-four) the forty-two (i.e., sixteen and eleven of the first and second lines respectively and the five each of the last three lines have sizes) in and ascending multiple order.

अवरमपुण्णं पढमं, सोलं पुण पढम विदिय तदियोली ।

पुण्णिदर पुण्णयाणं जहण्ण मुक्कस्स मुक्कस्सं ॥६६॥

अर्थ- आदिके सोलह स्थान जघन्य अपर्याप्तके हैं और प्रथम, द्वितीय, तृतीय श्रेणी क्रमसे पर्याप्तक, अपर्याप्तक तथा पर्याप्तक जीवों की है और उनकी यह अवगाहना क्रमसे जघन्य, उत्कृष्ट और उत्कृष्ट समझनी चाहिये।

Trans. 99. The sixteen non-developable (souls of), the first (row have) the minimum (bodily size) and (of the three rows of eleven each) the first is of developable (souls of) minimum (size), the second of non-developable (souls) of maximum (size, while) the third row is of the developable (souls) of maximum (size).

पुण्णजहण्णं तत्तो वरं अपुण्णस्स पुण्ण उक्कस्सं ।

बीपुण्णजहण्णो त्ति असंखं संखं गुणं तत्तो ॥१००॥

अर्थ- श्रेणीके आगेके प्रथम कोठेमें (ऊपरकी पंक्तिके छठे कोठेमें) पर्याप्तकोंकी जघन्य और दूसरे कोठेमें अपर्याप्तकोंकी उत्कृष्ट तथा तीसरे कोठेमें पर्याप्तकोंकी उत्कृष्ट अवगाहना समझनी चाहिये। द्विन्द्रिय पर्याप्तककी जघन्य अवगाहना पर्यन्त असंख्यातका गुणाकार है और इसके आगे संख्यातका गुणाकार है।

Trans. 100. (Further, the first of the three rows of five each is of) developable (souls of) minimum (size), (the next row is of) non-developable (souls of) maximum (size), (and the third row is of) developable (souls of) maximum (size). The bodily size of altogether twenty-nine namely, the sixteen in the first row, and the eleven in second row, and the first two of the (first row of five, the last being), the minimum sized two-sensed developable, (grows) by innumerable, (and) thereafter, in the last thirteen places, by numerable multiplications (successively).

सुहमेदर गुणगारो आवलि पल्ला असंखभागो दु ।

सट्ठाणे सेट्ठिगया अहिया तत्थेक पडिभागो ॥१०१॥

अर्थ- सूक्ष्म और बादरोंका गुणाकार स्वस्थानमें क्रमसे आवली और पल्यका असंख्यातवाँ भाग है और श्रेणीगत बाईस स्थान अपने-अपने एक-एक प्रतिभाग प्रमाण अधिक-अधिक हैं।

Trans. 101. (Of the twenty-nine classes shown above, the bodily size) of fine, and other (i.e., gross bodied souls, is to be found by) multiplying (in their due order) (the size of the immediately preceding one), by an innumerable part of an āvalī (a wink), and (by and innumerable part of one) palya (respectively). (The bodily size) of each (of the souls) in (the last two of the three) rows (of eleven each is to be found) by adding (to the immediately preceding class) its (innumerable part of an Āvalī, wink) fraction.

अवरुबरि इगिपदेसे जुदे असंखेज्जभाग वट्ठीए ।

आदी णिरंतरमदो एगेग पदेस परिवट्ठी ॥१०२॥

अर्थ- जघन्य अवगाहनाके प्रमाणमें एकप्रदेश और मिलानेसे जो प्रमाण होता है वह असंख्यातभागवृद्धिका आदिस्थान है। इसके आगे भी क्रमसे एक-एक प्रदेशकी वृद्धि करनी चाहिये। ऐसा करते करते-

Trans. 102. The first stage in the innumerable-part-increase (asamkhyāta bhāga-vṛddhi) is reached by adding one 'spatial unit' (pradeśa) to the minimum size. Further than this there is consistently an increase of one spatial unit (in every subsequent size).

अवरोग्गाहणमाणे जहण्ण परिमिद असंख रासि हिदे ।

अवरस्सुवरिं उहे जेद्व मसंखेज्ज भागस्स ॥१०३॥

अर्थ- जघन्य अवगाहनाके प्रमाणमें जघन्यपरीतासंख्यातका भाग देनेसे जो लब्ध आवे उतने प्रदेश जघन्य अवगाहनामें मिलानेपर असंख्यातभागवृद्धिका उत्कृष्ट स्थान होता है।

Trans. 103. The highest stage in the innumerable part (increase) is reached (when a number equal to the minimum size plus the quotient obtained by dividing the number of spatial units of the minimum size by the minimum preliminary innumerable, (jaghanya parīta saṁkhyāta, a kind of innumerable) is obtained. See Gem Dict. App. B.

तस्सुवरि इगिपदेसे जुदे अवत्तव्व भाग पारंभो ।

वरसंखमवहिदवरे रूऊणे अवर उवरि जुदे ॥१०४॥

तव्वद्धीए चरिमो तस्सुवरिं रूवसंजुदे पढमा ।

संखेज्जभागउद्धी उवरिमदो रूवपरिवद्धी ॥१०५॥

अर्थ- असंख्यातभागवृद्धिके उत्कृष्ट स्थानके आगे एक प्रदेशकी वृद्धि करनेसे अवक्तव्य भागवृद्धिका प्रारम्भ होता है। इसमें एक-एक प्रदेशकी वृद्धि होते होते, जब जघन्य अवगाहनाके प्रमाणमें उत्कृष्ट संख्याका भाग देनेसे जो लब्ध आवे उसमें एक कम करके जघन्यके प्रमाणमें मिला दिया जाय तब-

अवक्तव्यभागवृद्धिका उत्कृष्ट स्थान होता है। इसके आगे एक प्रदेश और मिलानेसे संख्यात भागवृद्धिका प्रथम स्थान होता है। इसके भी आगे एक-एक प्रदेशकी वृद्धि करते करते जब-

Trans. 104-105. After adding one spatial unit to that (i.e. the last size shown in the preceding gāthā) begins the indescribable-part (increase avaktavya bhāga-vṛddhi). The last stage of this (increase) is reached when a number equal to the minimum size plus the quotient obtained by dividing the minimum by the maximum numerical number minus one is obtained. By adding one to that (i.e., the last stage of indescribable increase we get) the first stage of the numerable part increase. Above that there is a gradual increase of one (spatial unit).

अवरद्धे अवरुवरिं उहे तव्वद्धिपरिसमत्ती हु ।

रूवे तदुवरि उहे होदि अवत्तव्व पढमपदं ॥१०६॥

अर्थ- जघन्यका जितना प्रमाण है उसमें उसका (जघन्यका) आधा प्रमाण और मिला दिया जाय तब संख्यात भागवृद्धिका उत्कृष्ट स्थान होता है। इसके आगे भी एक प्रदेशकी वृद्धि करनेपर अवक्तव्य वृद्धिका प्रथम स्थान होता है।

Trans 106. There is surely an end of this (numerable part) increase when (a number equal) to half of the minimum (size spatial units) added to the minimum (size spatial units) is reached. When one is added to this (number we, get) the first stage of the indescribable-part-increase.

रूऊणवरे अवरस्सुवरिं संवद्धिदे तदुक्कस्सं ।

तद्धि पदेसे उहे पढमा संखेज्ज गुणवद्धी ॥१०७॥

अर्थ- जघन्यके प्रमाणमें एक कम जघन्यका ही प्रमाण और मिलानेसे अवक्तव्य वृद्धिका उत्कृष्ट स्थान होता है। और इसमें एक प्रदेश और मिलानेसे संख्यात गुणवृद्धिका प्रथम स्थान होता है।

Trans 107. The highest point (of indescribable-part-increase) is arrived at by adding the minimum (size spatial units) minus one to (the spatial units of) the minimum size. By adding one spatial unit to it, we get the first stage of the numerable-fold-increase (saṁkhyāta-guṇa vṛddhi).

अवरे वरसंखगुणे तच्चरिमो तद्धि रूवसंजुत्ते ।
उग्गाहणह्मि पढमा होदि अवत्तव्वगुणवट्ठी ॥१०८॥

अर्थ- जघन्यको उत्कृष्ट संख्यातसे गुणा करनेपर संख्यातगुणवृद्धिका उत्कृष्ट स्थान होता है। इस संख्यात गुणवृद्धिके उत्कृष्ट स्थानमें ही एक प्रदेशकी वृद्धि करनेपर अवक्तव्य गुणवृद्धिका प्रथम स्थान होता है।

Trans. 108. The last stage of this increase (is reached when a number equal to the spatial units of the minimum (size) multiplied by the maximum number is arrived (at). On adding one to this (measure of) size, the first stage of indescribable fold-increase is obtained.

अवर परिता संखेणवरं संगुणिय रूवपरिहीणे ।
तच्चरिमो रूव जुदे तद्धि असंखेज्ज गुणपढमं ॥१०९॥

अर्थ- जघन्य अवगाहका जघन्य परितासंख्यातके साथ गुणाकरके उसमेंसे एक घटानेपर अवक्तव्य गुणवृद्धिका उत्कृष्ट स्थान होता है और इसमें एक प्रदेशकी वृद्धि होनेपर असंख्यात गुणवृद्धिका प्रथम स्थान होता है।

Trans. 109. The final stage of (indescribable fold-increase is reached) when the number equals the spatial units of minimum size, multiplied by the minimum preliminary innumerable (jaghanya-parīta-samkhyāta), minus one. By adding one (more to it) the first (stage) of the innumerable fold (increase is obtained).

रूवुत्तरेण तत्तो आवलियाऽसंखभागगुणगारे ।
तप्पाउग्गे जादे वाउस्सोग्गाहणं कमसो ॥११०॥

अर्थ- इस संख्यात गुणवृद्धिके प्रथम स्थानके ऊपर क्रमसे एक-एक प्रदेशकी वृद्धि होते-होते जब सूक्ष्म अपर्याप्त वायुकायकी जघन्य अवगाहनाकी उत्पत्तिके योग्य आवलिके असंख्यातवें भागका गुणाकार उत्पन्न हो जाये तब क्रमसे उस वायुकायकी जघन्य अवगाहना होती है।

Trans. 110. Then by adding one in gradual succession we get the minimum size of (the non-developable fine) air (bodied soul), which is equal to the minimum-size-spatial units multiplied by an innumerable part of an Āvalī applicable to it.

एवं उवरि वि णेओ पदेस वट्ठिक्कमो जहाजोग्गं ।
सव्वत्थेक्केक्केहि य जीवसमासाण विच्चाले ॥१११॥

अर्थ- जिस प्रकार सूक्ष्म निगोदिया अपर्याप्तसे लेकर सूक्ष्म अपर्याप्त वातकायकी जघन्य अवगाहना पर्यंत प्रदेश वृद्धिके क्रमसे अवगाहनाके स्थान बताये, उसी प्रकार आगे भी वातसे तेज और तेजस्कायिकसे लेकर पर्याप्त पंचेन्द्रियकी उत्कृष्ट अवगाहना पर्यंत सम्पूर्ण जीवसमासोंके प्रत्येक अन्तरालमें प्रदेशवृद्धि क्रमसे अवगाहनास्थानोंको समझना चाहिए।

Trans. 111. Thus further also, the order of increase of spatial units in each and intermediate stage between the soul classes, should be known to be the same every where, as (may be) applicable to each.

हेट्ठा जेसिं जहण्णं उवरिं उक्कस्सयं हवे जत्थ ।
तत्थंतरगा सव्वे तेसिं उग्गाहण विअप्पा ॥११२॥

अर्थ- जिन जीवोंकी प्रथम जघन्य अवगाहनाका और अनन्तर उत्कृष्ट अवगाहनाका जहाँ-जहाँपर वर्णन किया गया है उनके मध्यमें जितने भेद हैं उन सबका उसीके भेदोंमें अन्तर्भाव होता है।

Trans. 112. Those (classes) which have the minimum (bodily size) should be placed below, while their corresponding maximum should be placed above. Between them are all the variations of their sizes.

वावीस सत्त तिण्णि य सत्त य कुलकोडि सय सहस्साहिं ।

णेया पुढविदगागणि वाउक्कायाण परिसंखा ॥११३॥

अर्थ- पृथिवीकायिक जीवोंके कुल बाईस लाख कोटि हैं, जलकायिक जीवोंके कुल सात लाख कोटि हैं, अग्निकायिकजीवों के कुल तीन लाख कोटि हैं, और वायुकायिक जीवोंके कुल सात लाख कोटि हैं।

Trans. 113. The number of the kinds of material (kula-bheda) of the earth, water, fire, and air-bodied souls should be known to be twenty-two, seven, three and seven, lacs of crores (respectively).

कोडिसय सहस्साइं सत्तइं णव य अट्ठवीसाइं ।

बे इंदिय तेइंदिय चउरिंदिय हरिदकायाणं ॥११४॥

अर्थ- द्वीन्द्रिय जीवोंके कुल सात लाख कोटि, त्रीन्द्रिय जीवोंके कुल आठ लाख लाख कोटि, चतुरिन्द्रिय जीवोंके कुल नौ लाख कोटि, और वनस्पतिकायिक जीवोंके कुल २८ लाख कोटि हैं।

Trans. 114. Of the two-sensed, three-sensed, four-sensed and (one-sensed) vegetable bodied souls (the number is) seven, eighth, nine and twenty-eight crores of lacs, respectively.

अद्धतेरस बारस दसयं कुलकोडि सदसहस्साइं ।

जलचर पक्खि चउप्पय उरपरिसप्पेसु णव होति ॥११५॥

अर्थ- पंचेन्द्रिय तिर्यचोंमें जलचर जीवोंके साढ़े बारह लाख, पक्षियोंके बारह लाख कोटि, पशुओंके दस लाख कोटि, और छातीके सहारेसे चलने वाले दुमुही आदिके नवलाख कोटि कुल हैं।

Trans. 115. Of the (five-sensed) water inhabiting, air-flying, quadruped souls and serpents which crawl on their breasts, (there are respectively) thirteen and a half, twelve, ten, and nine, lacs of crores kinds of bodily materials.

छप्पं चाधिय वीसं बारस कुलकोडि सदसहस्साइं ।

सुर णेरइय णराणं जहा कमं होति णेयाणि ॥११६॥

अर्थ- देव, नारकी तथा मनुष्य इनके कुल क्रमसे छब्बीस लाख कोटि, पच्चीस लाख कोटि, तथा बारह लाख कोटि हैं जो कि भव्यजीवों के लिये ज्ञातव्य हैं।

Trans. 116. Of the celestial, hellish and human souls, twenty-six twenty-five, and twelve lacs of crores kinds of bodily materials should respectively be known.

एया य कोडिकोडी सत्ताणउदी य सदसहस्साइं ।

पण्णं कोडिसहस्सा सव्वंगीणं कुलाणं य ॥११७॥

अर्थ- इस प्रकार पृथिवीकायिकसे लेकर मनुष्य पर्यन्त सम्पूर्ण जीवोंके समस्त कुलोंकी संख्या एक कोड़ा कोड़ी तथा सत्तानवे लाख और पचास हजार कोटि है।

Trans. 117. The total kinds of bodily materials of all bodied souls are one Koḍā-Koḍī (one hundred million, 10 m. x 10 m.), ninety-seven lacs, and fifty-thousand crores.

३. पर्याप्ति (DEVELOPABLENESS)

जह पुण्णापुण्णाइं गिह घड वत्थादियाइं दव्वाइं ।

तह पुण्णिदरा जीवा पज्जत्तिदरा मुणेयव्वा ॥११८॥

अर्थ- जिस प्रकार घर, घट, वस्त्र आदिक अचेतन द्रव्य पूर्ण और अपूर्ण दोनों प्रकारके होते हैं। उसी प्रकार पर्याप्त और अपर्याप्त नामकर्मके उदयसे युक्त जीव भी पूर्ण और अपूर्ण दो प्रकारके होते हैं जो पूर्ण हैं उनको पर्याप्त और जो अपूर्ण है, उनको अपर्याप्त कहते हैं।

Trans. 118. As there are complete and incomplete houses, pots, cloth, and such things, similarly (mundane), souls (in their capacities) when complete or otherwise (i.e. incomplete) should be understood to be developable (Paryāpta) or otherwise (non-developable Aparyāpta).

आहार-सरीरिंदय पज्जत्ती आणपाण भास मणो ।

चत्तारि पंच छप्पि य एइंदिय वियल सण्णीणं ॥११६॥

अर्थ- आहार, शरीर, इन्द्रिय, श्वासोच्छ्वास, भाषा और मन इस प्रकार पर्याप्तिके छह भेद हैं। इनमेंसे एकेन्द्रिय जीवोंके आदिकी चार पर्याप्ति होती है और विकलेन्द्रिय, द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय और असंज्ञी पंचेन्द्रिय जीवोंके अन्तिम मनःपर्याप्तिको छोड़कर शेष पाँच पर्याप्ति होती है और संज्ञी पंचेन्द्रिय जीवोंके सभी छहों पर्याप्ति हुआ करती हैं।

Trans. 119. (The capacity of) assimilating (the molecules of Āhāra Vargaṇā of which the external bodies are formed, capacities of forming) body and sense, (the capacity of) (breathing, the capacity of) speech and mind are the six developable capacities (paryāpti). (Out of them) four, five and six belong (in their regular order) to one sensed, incomplete sensed (i.e. two, three four and irrational five-sensed) and rational (five-sensed souls).

पज्जत्ती पट्ठवणं जुगवं तु कमेण होदि णिट्ठवणं ।

अंतोमुहुत्तकालेणहियकमा तत्तियालावा ॥१२०॥

अर्थ- सम्पूर्ण पर्याप्तियोंका आरम्भ तो युगपत् होता है किन्तु उनकी पूर्णता क्रमसे होती है इनका काल यद्यपि पूर्व-पूर्वकी अपेक्षा उत्तरोत्तरका कुछ-कुछ अधिक है तथापि सामान्यकी अपेक्षा सबका अन्तमुहूर्त मात्र ही काल है।

Trans. 120. The gaining of the capacities starts simultaneously, but the completion (of each of them), is effected gradually within the period of one antar-muhūrta, which increases in the case of each succeeding one. (Yet their total period does not exceed one antar-muhūrta).

पज्जत्तस्स य उदये णियणिय पज्जत्ति णिट्ठिदो होदि ।

जाव सरीरमपुण्णं णिव्वत्ति अपुण्णगो ताव ॥१२१॥

अर्थ- पर्याप्ति नामकर्मके उदयसे जीव अपनी पर्याप्तियोंसे पूर्ण होता है, तथापि जब तक उसकी शरीर पर्याप्ति पूर्ण नहीं होती तब तक उसको पर्याप्त नहीं कहते, किन्तु निर्वृत्यपर्याप्त कहते हैं।

Trans. 121. The completion of the Paryāpties (of each class of souls) is effected by the operation of the developable body-making-Karma (Paryāpti Nāma-Karma). So long as the body (formation capacity) is incomplete, the soul is (called) potentially developable (nirvṛttyparyāpta).

उदये दु अपुण्णस्स य सगसग पज्जत्तियं ण णिट्ठवदि ।

अंतोमुहुत्त मरणं लब्धि अपज्जत्तगो सो दु ॥१२२॥

अर्थ- अपर्याप्त नामकर्मका उदय होनेसे जो जीव अपने-अपने योग्य पर्याप्तियोंको पूर्ण न करके अन्तर्मुहूर्त कालमें ही मरणको प्राप्त हो जाये उसको लब्ध्यपर्याप्तक कहते हैं।

Trans. 122. The (soul) which on account of the operation of non-developable body-making- karma (aparyāpta-nāma Karma) cannot complete its due capacities and dies within one (antar-muhūrta) is called absolutely non-developable (Labdhyaparyāptaka).

तिष्णि सया छत्तीसा छावट्टिसहस्सगाणि मरणाणि ।
अंतोमुहुत्तकाले तावदिया चेव खुद्दभवा ॥१२३॥

अर्थ- एक अन्तर्मुहूर्तमें एक लब्ध्यपर्याप्तक जीव छ्यासठ हजार तीन सौ छत्तीस बार मरण और उतने ही भवों-जन्मोंको भी धारण कर सकता है। इन भवोंको क्षुद्र भव शब्दसे कहा गया।

Trans. 123. There are sixty-six thousand three hundred and thirty-six absolutely non-developable deaths (of Labdhyaparyāptaka souls) in one antar-muhūrta and (such) ephemeral births (kṣudra bhava) also (are) as many.

सीदी सट्ठी तालं वियले चउवीस होंति पंचक्खे ।
छावट्टिं च सहस्सा सयं च बत्तीसमेयक्खे ॥१२४॥

अर्थ- विकलेन्द्रियोंमें द्वीन्द्रिय लब्ध्यपर्याप्तकके ८० भव, त्रीन्द्रिय लब्ध्यपर्याप्तक के ६० भव, चतुरिन्द्रिय लब्ध्यपर्याप्तकके ४० और पंचेन्द्रिय लब्ध्यपर्याप्तकके २४, तथा एकेन्द्रियों के ६६१३२ भवोंको धारण कर सकता है, अधिकको नहीं।

Trans. 124. There are eighty, sixty, forty, twenty-four, and sixty-six thousand one hundred and thirty-two (continuous ephemeral births) (respectively) in the (two-sensed, three-sensed and four-sensed) incomplete (souls), five-sensed and one-sensed (souls).

पुढविदगागणिमारुद साहारणथूलसुहम पत्तेया ।
एदेसु अपुण्णेषु य एक्केके बार खं छक्कं ॥१२५॥

अर्थ- स्थूल और सूक्ष्म दोनों ही प्रकारके जो पृथ्वी, जल, अग्नि, वायु, साधारण और प्रत्येक वनस्पति, इस प्रकार सम्पूर्ण ग्यारह प्रकारके लब्ध्यपर्याप्तकोंमें से प्रत्येक (हरएक) के ६०१२ भेद होते हैं।

Trans. 125. (Amongst one-sensed souls) there can be six hundred and twelve continuous ephemeral births in each of the (eleven) non-developable i.e. earth, water, fire, air, and Nigoda, (each of these of these being) gross and fine bodied, and mono-souled vegetables.

पज्जत्तसरीरस्स य पज्जत्तुदयस्स कायजोगस्स ।
जोगिस्स अपुण्णत्तं अपुण्णजोगो त्ति णिद्धिं ॥१२६॥

अर्थ- जिस सयोगकेवलीका शरीर पूर्ण है और उसके पर्याप्ति नामकर्मका उदय भी मौजूद है तथा काययोग भी है, उसके अपर्याप्तता किस प्रकार हो सकती है? तो इसका कारण योगका पूर्ण न होना ही बतलाया है।

Trans. 126. An (omniscient) vibratory soul, with bodily vibrations, with a developable- body and subject to the operation of developable (body making karma) is called incomplete vibratory soul (apūrṇa-yoga) when where is incompleteness (of development).

लब्धि अपुण्णं मिच्छे तत्थ वि विदिये चउत्थ छट्ठे य ।
णिव्वत्ति अपज्जत्ती तत्थ वि सेसेसु पज्जत्ती ॥१२७॥

अर्थ- लब्ध्यपर्याप्तक मिथ्यात्व गुणस्थानमें ही होते हैं निर्वृत्यपर्याप्तक प्रथम, द्वितीय, चतुर्थ और छठे गुणस्थानमें होते हैं और पर्याप्ति उक्त चारों और शेष सभी गुणस्थानोंमें पाई जाती हैं।

Trans. 127. Absolutely non-developable souls (are only) in (the stage of) wrong belief (the first spiritual stage), Potentially developable souls in this (i.e., the first) and also in the second (downfall sāsādana), the fourth, and the sixth stages (i.e., vowless right belief Avirata Samyktva and incomplete vow pramatta-virata). The developable souls have these as also the rest of the thirteen stages).

हेट्टिम छप्पुढवीणं जोइसिवण भवण सव्व इत्थीणं ।

पुण्णिदरे ण हि सम्मो ण सासणो णारयापुण्णे ॥१२८॥

अर्थ- द्वितीयादिक छह नरक और ज्योतिषी, व्यन्तर, भवनवासी ये तीन प्रकारके देव तथा सम्पूर्ण स्त्रियाँ इनकी अपर्याप्त अवस्थामें सम्यक्त्व नहीं होता है और सासादन सम्यग्दृष्टि अपर्याप्त नारकी नहीं होता।

Trans. 128. In non-developable condition, there is no Right Belief (Samayaktva) to souls in the six neither most earths, (the six lowest hells); to (the celestials whether) stellar (jyotiṣka) Paripatetic (vyantara) residential (Bhavanavāsi) and to all females. There is no down-fall stage (Sāsādana) in the non-developable condition of hellish souls.

४. प्राण (VITALITES)

बाहिरपाणेहिं जहा तहेव अब्भंतरेहिं पाणेहिं ।

पाणंति जेहिं जीवा पाणा ते होंति णिदिद्धा ॥१२९॥

अर्थ- जिस प्रकार अभ्यन्तर प्राणोंके कार्यभूत नेत्रोंका खेलना, वचन-प्रवृत्ति, उच्छ्वास-निःश्वास आदि बाह्य प्राणोंके द्वारा जीव जीते हैं, उसी प्रकार जिन अभ्यन्तर इन्द्रियावरण कर्मके क्षयोपशमादिके द्वारा जीवमें जीवितपने का व्यवहार हो उनको प्राण कहते हैं।

Trans. 129. As by external life-forces, so also by internal life-forces (all mundane) souls have their existence. Both of these life-forces are Vitalities (prāṇa). (This) has been laid down.

पंच वि इंदियपाणा मणवचिकायेसु तिण्णि बलपाणा ।

आणापाणप्पाणा आउगपाणेण होंति दस पाणा ॥१३०॥

अर्थ- पाँच इन्द्रिय प्राण- स्पर्शन, रसन, घ्राण, चक्षु, श्रोत्र। तीन बलप्राण- मनोबल, वचनबल, कायबल। एक श्वासोच्छ्वास तथा एक आयु इस प्रकार ये दश प्राण हैं।

Trans. 130. The five sense vitalities, three power-vitalities of mind, speech, and body the respiratory vitality; the age-vitality (all these) form the ten vitalities.

वीरियजुदमदिखउवसमुत्था णोइंदियेंदियेसु बला ।

देहुदये कायाणा वचीबला आउ आउदये ॥१३१॥

अर्थ- मनोबल प्राण और इन्द्रिय प्राण वीर्यान्तराय कर्म और मतिज्ञानावरण कर्मके क्षयोपशमरूप अन्तरंग कारणसे उत्पन्न होते हैं। शरीरनामकर्मके उदयसे कायबल-प्राण होता है। श्वासोच्छ्वास और शरीर नामकर्मके उदयसे प्राण श्वासोच्छ्वास उत्पन्न होते हैं। स्वर नामकर्म के साथ शरीर नामकर्मका उदय होने पर वचनबल प्राण होता है। आयु कर्मके उदयसे आयु प्राण होता है।

Trans. 131. Mind and sense-vitalities arise by the destructive-subsidence of the power (obstructing Virya-antarāya), sensitive-knowledge obscuring (Mati jñānāvaraṇa karma) By the operation of the body-making (Śarīra nāma karma) (arise) the body, respiration and speech vitalities, and by the operation of age (Āyu karma) arises the age vitality.

इंदियकायाऊणि य पुण्णापुण्णेसु पुण्णगे आणा ।

बीइंदियादि पुण्णे वचीमणो सण्णिपुण्णेव ॥१३२॥

अर्थ- इन्द्रिय, काय, आयु ये तीन प्राण, पर्याप्त और अपर्याप्त दोनों ही के होते हैं किन्तु श्वासोच्छ्वास पर्याप्तके ही होता है और बचनबल प्राण पर्याप्त द्वीन्द्रियादिके ही होता है तथा मनोबल प्राण संज्ञी पर्याप्तके ही होता है।

Trans. 132. Sense, body, and age vitalities are found in both the developable and non-developable and respiration in developable (souls) only. In the developable two-sensed (souls) and others (up to five-sensed is found the speech) (vitality), while the mind vitality is found in developable rational (souls) alone.

दस सण्णीणं पाणा सेसेऽगूणंतिमस्स वेऊणा ।

पज्जत्तेसिदरेसु य सत्त दुगे सेसगेगूणा ॥१३३॥

अर्थ- पर्याप्त संज्ञी पंचेन्द्रियके दश प्राण होते हैं। शेष पर्याप्तकोंके एक-एक प्राण कम होता जाता है; किन्तु एकेन्द्रियोंके दो कम होते हैं। अपर्याप्तक संज्ञी और असंज्ञी पंचेन्द्रियके सात प्राण होते हैं और शेषके अपर्याप्त जीवोंके एक-एक प्राण कम होता जाता है।

Trans. 133. Among the developables, the rationals have (all the ten vitalities while the rest (from irrational five-sensed, downwards to two-sensed) (souls) have one less each (successively). The last (i.e., one sensed) have two (less than the preceding class). Amongst the others (i.e., non-developables) (there are) seven (vitalities) in the two (i.e., the rational and irrational five-sensed (souls) and in the rest one less in each (respectively).

५- संज्ञा (SANJNĀ)

इह जाहि बाहिया वि य जीवा पावन्ति दारुणं दुक्खं ।

सेवन्ता वि य उभये ताओ चत्तारि सण्णाओ ॥१३४॥

अर्थ- जिनसे संवत्तेशित होकर जीव इस लोकमें और जिनके विषयका सेवन करनेसे दोनों ही भवोंमें दारुण दुःखको प्राप्त होते हैं उनको संज्ञा कहते हैं। उसके विषयभेदके अनुसार चार भेद हैं- आहार, भय, मैथुन और परिग्रह।

Trans. 134. (Desires), troubled by which (mundane) souls experience severe pain in this world, and (which) even when enjoyed, (cause trouble) in both (the worlds) are four animate feelings (Sanjñā).

आहारदंसणेण य तस्सुवजोगेण ओमकोठाए ।

सादिदरुदीरणाए हवदि हु आहारसण्णा हु ॥१३५॥

अर्थ- आहारके देखनेसे अथवा उसके उपयोगसे, पेटके खाली होनेसे तथा असाता वेदनीय कर्मके उदय और उदीरणा होनेपर जीवके नियमसे आहार संज्ञा उत्पन्न होती है।

Trans. 135. The animate feeling for food is aroused by (external causes such as) sight of (delicious) food, attention to it (through remembrance, or on account of hearing stories relation to food), (and) an empty stomach; (as also) by the premature operation (udīrṇā) of Pain-feeling (Asātā-vedanīya) karma, (an internal cause).

अइभीमदंसणेण य तस्सुवजोगेण ओमसत्तीए ।

भय कम्मदीरणाए भयसण्णा जायदे चदुहिं ॥१३६॥

अर्थ- अत्यन्त भयंकर पदार्थके देखनेसे अथवा पहले देखे हुए भयंकर पदार्थके स्मरणादिसे, यद्वा शक्तिके हीन होनेपर और अन्तरंगमें भयकर्मका तीव्र उदय-उदीरणा होनेपर भयसंज्ञा उत्पन्न हुआ करती है।

Trans. 136. The animate feeling of Fear is aroused by four (causes)- by the sight of some very fearful object, by attention towards it (through remembrance, or on account of hearing stories relating to fearful objects and incidents), by weakness of mind; (as well as) by the premature operation of fear karma (a minor passion, and a sub-division of Right conduct deluding-karma, and internal cause).

पण्डितस भोयणेण य तस्सुवजोगे कुसील सेवाए ।
वेदस्सुदीरणाए मेहुणसण्णा हवदि एवं ॥१३७॥

अर्थ- कामोत्तेजक स्वादिष्ट और गरिष्ठ रसयुक्त पदार्थोंका भोजन करनेसे, और कामकथा नाटक आदिके सुनने एवं पहलेके भुक्त विषयोंका स्मरण आदि करनेसे तथा कुशीलका सेवन विट आदि कुशीली पुरुषोंकी संगति गोष्ठी आदि करनेसे और वेद कर्मका तीव्र उदय या उदीरणा आदिसे मैथुन संज्ञा होती है।

Trans. 137. The animate feeling of Coition is aroused by indulgence in exciting and aphorodisiac meals, by attention to it (through recollection or hearing stories relating to sexuality), by the company of a bad character; and by the premature operation of the sex-inclination karma (a kind of Right-conduct-deluding-karma, (which is an internal cause).

उवयरण दंसणेण य तस्सुवजोगेण मुच्छिदाए य ।
लोहस्सुदीरणाए परिग्गहे जायदे सण्णा ॥१३८॥

अर्थ- इत्र, भोजन, उत्तम वस्त्र, स्त्री, धन, धान्य आदि भोगोपभोगके साधनभूत बाह्य पदार्थोंके देखनेसे अथवा पहलेके भुक्त पदार्थोंका स्मरण या उनकी कथाका श्रवण आदि करनेसे और ममत्व परिणामोंके परिग्रहाद्यर्जनकी तीव्र गृद्धिके भाव होनेसे एवं लोभकर्मका तीव्र उदय या उदीरणा होनेसे, इन चार कारणोंसे परिग्रह संज्ञा उत्पन्न होती है।

Trans. 138. The animate feeling of attachment is aroused by the sight of (beautiful) objects, by attention (being drawn towards them on account of remembrance or hearing stories relating to sensual objects), by infatuation for the acquisition of wordly possessions and by the premature operation of Greed-passion (Lobha-Kaṣāya), a kind of Right-conduct-deluding karma, and internal cause).

णट्टपमाए पढमा सण्णा ण हि तत्थ कारणाभावा ।
सेसा कम्मत्थित्तेणुवयारे णत्थि ण हि कज्जे ॥१३९॥

अर्थ- अप्रमत्त आदि गुणस्थानोंमें आहारसंज्ञा नहीं होती क्योंकि वहाँपर उसका कारण असाता वेदनीयका तीव्र उदय या उदीरणा नहीं पाई जाती। शेष तीन संज्ञाएँ भी वहाँपर उपचार से ही होती है क्योंकि उनका कारण तत्तत्कर्मों का उदय वहाँ पर पाया जाता है। फिर भी उनका वहाँ पर कार्य नहीं हुआ करता।

Trans. 139. On the destruction of carelessness (pramāda, which exists till the sixth spiritual stage), there remains no first animate feeling (i.e., desire for food), because of the absense of the (internal) cause; the remaining (three animate feelings) owing to the presence of their (causative) Karma from a figurative point of view, still exist though they are not effective.

६-मार्गणा (SOUL QUESTS)

धम्मगुणमग्गणाहय मोहारिबलं जिणं णमंसित्ता ।
मग्गण महाहियारं विविहहियारं भणिस्सामो ॥१४०॥

अर्थ- सम्यग्दर्शनादि अथवा उत्तम क्षमादि धर्मरूपी धनुष और ज्ञानादि गुणरूपी प्रत्यंचा-डोरी तथा चौदह मार्गणारूपी बाणोंसे जिसने मोहरूपी शत्रुके बल-सैन्यको नष्ट कर दिया है इस प्रकारके श्री जिनेन्द्रदेवको नमस्कार करके मैं उस मार्गणा महाधिकारका वर्णन करूँगा जिसमें कि और भी विविध अधिकारोंका अन्तर्भाव पाया जाता है।

Trans. 140. Having bowed to the Conqueror (Jina) who has destroyed the forces of the enemy-delusion (Moha) by the (arrows of) soul-quests (Mārgaṇā) (discharged from) the string of attributes (knowledge etc.), (attached to the bow of) Dharma, (the Trinity of Right-belief, Right knowledge and Right Conduct), we shall describe the great chapter on soul quests (Mārgaṇā) which comprises various sub-chapters.

जाहि व जासु व जीवा मग्गिज्जंते जहा तहा दिट्ठा ।
ताओ चौदस जाणे सुयणाणे मग्गणा होति ॥१४१॥

अर्थ- प्रवचनमें जिस प्रकारसे देखे हों उसी प्रकारसे जीवादि पदार्थोंका जिन भावोंकेद्वारा अथवा जिन पर्यायोंमें विचार-अन्वेषण किया जाये उनको ही मार्गणा कहते हैं, उनके चौदह भेद हैं ऐसा समझना चाहिये।

Trans. 141. Know (them to be) the soul quests, by means of which, or amongst which souls, as seen in scriptural knowledge, are searched for. They are fourteen.

गइ-इदियेसु काय जोगे वेदे कसायणाणे य ।
संजमदंसण लेस्सा भवियासम्मत्तसण्णि आहारे ॥१४२॥

अर्थ- गति, इन्द्रिय, काय, योग, वेद, कषाय, ज्ञान, संयम, दर्शन, लेश्या, भव्यत्व, सम्यक्त्व, संज्ञा, आहार ये चौदह मार्गणा हैं।

Trans. 142. The fourteen soul quests are:-

1. Condition of existence (gati) 2. sense (indriya), 3. Embodiment (kāya), 4. Vibratory activity (Yoga) 5. sex inclination (Veda). 6. Passion (Kashāya). 7. Knowledge (Jñāna) 8. Control (samyama), 9. Conation (Darśana), 10. Thought-paint (Leśyā), 11. Liberableness (Capacity of) attaining liberation from karmic bondage (Bhavyatva), 12. Right belief (Samyaktva), 13. Rationality (Samjñitva), and 14. Assimilation (of matter) (Āhāra).

उवसम सुहुमाहारे वेगुव्विय मिस्स णर अपज्जत्ते ।
सासणसम्मि मिस्से सांतरगा मग्गणा अट्ठ ॥१४३॥
सत्त दिणा छम्मासा वासपुधत्तं च बारस मुहुत्ता ।
पल्लासंखं तिण्हं वरमवरं एगसमयो दु ॥१४४॥

अर्थ- उपशम सम्यक्त्व, सूक्ष्मसांपराय संयम, आहारक काययोग, आहारक मिश्रकाययोग, वैक्रियिक मिश्रकाययोग, अपर्याप्त लब्ध्यपर्याप्त मनुष्य, सासादन सम्यक्त्व और मिश्र ये आठ सान्तरमार्गणाएँ हैं।

उक्त आठ अन्तरमार्गणाओंका उत्कृष्ट काल क्रमसे सात दिन, छः महीना, पृथक्त्ववर्ष, पृथक्त्व वर्ष, बारह मुहुर्त और अन्तकी तीन मार्गणाओंका काल पल्यके असंख्यातवें भाग है और जघन्य काल सबका एक समय है।

Trans. 143-144. There are eight with-interval-soul-quests (Sāntara mārgaṇā). In (case of) 1. Subsidential (Right belief, upashama samyaktva), 2. Slightest-(Delusion control, sūkshma sāmparāya samyama), 3. Assimilative-(body vibratory-activity, Ahāraka-Kāya-Yoga), 4. Mixed (Assimilative-

body vibratory activity, Ahāraka Mishra-Yoga), 5. Fluid-mixed (body-vibratory-activity, vaikriyika Mishra Yoga), 6. Absolutely non-developable human soul (Labdhyaparyāptaka Manuṣya), 7. Downfall belief (Sāsādāna samyaktva) and 8. Mixed (Belief-mishra-Samyktva). The maximum (interval for each of these, respectively is (1) Seven days, (2) Six months, (3) Seven years, (4) (Eight years), (5) Twelve Muhūrtas, and for (6) (7) and (8) the part of a Palya; but the minimum (time) is one instant (samaya, for each of these).

पढमुवसम सहिदाए विरदाविरदीए चौदसा दिवसा ।

विरदीए पण्णरसा विरहिद कालो दु बोधव्वो ॥१९४५॥

अर्थ- प्रथमोपशम सम्यक्त्व सहित पंचमगुणस्थानका उत्कृष्ट विरहकाल चौदह दिन और छठे, सातवें गुणस्थानका उत्कृष्ट विरहकाल पंद्रह दिन समझना चाहिये।

Trans. 145. But (in cases of souls) having first subsidential Right-Belief, (when) in Partial vow and Imperfect-vow, (stages) the interval of total absence should be known to be of fourteen, and fifteen days (respectively).

गइउदयजपज्जाया चउगइ गमणस्स हेउ वा हु गई ।

णारय तिरिक्ख माणुस देवगइ ति य हवे चदुधा ॥१९४६॥

अर्थ- गतिनाम कर्मके उदयसे होने वाली जीवकी पर्यायको अथवा चारों गतियोंमें गमन करनेके कारणको गति कहते हैं। उसके चार भेद हैं, नरकगति, तिर्यचगति, मनुष्यगति, देवगति।

Trans. 146. Condition of existence (Gati) is the state (of a soul), brought about by the operation of the body-condition-making (Gati-Nāma-Karma) or it is the cause of the soul's passing in either of the four conditions of existence. The four kinds of the conditions of existence are 1. Hellish (Nāraka) 2. Sub-human (Tiryañca), 3. Human (Manuṣya) and 4. Celestial (Deva).

ण रंमति जदो णिच्चं दव्वे खेत्ते य काल भावे य ।

अण्णोण्णेहिं य जम्हा तम्हा ते णारया भणिया ॥१९४७॥

अर्थ- जो द्रव्य, क्षेत्र, काल, भावमें स्वयं तथा परस्परमें प्रीतिको प्राप्त नहीं होते, उनको नारत (नारकी) कहते हैं।

Trans. 147. Nāratās (unamused, or Nārakās, Hellish) are so called because they do never like the objects, place, time and the conditions (in which they are placed), nor (do they like) each other.

तिरियंति कुडिलभावं सुविउल सण्णा णिगिद्धिमण्णाणा ।

अच्चंत पावबहुला तम्हा तेरिच्छया भणिया ॥१९४८॥

अर्थ- जो मन, वचन, कायकी कुटिलताको प्राप्त हों, अथवा जिनकी आहारादि विषयक संज्ञा दूसरे मनुष्योंको अच्छी तरह प्रकट हो और जो निकृष्ट अज्ञानी हों तथा जिनमें अत्यंत पापका बाहुल्य पाया जाये उनको तिर्यच कहते हैं।

Trans. 148. Tiryañcās (crooked or subhuman souls) are so called because they adopt crooked thought-activities, have open indulgence in their animate feelings, are in a very low position (as regards their body-enjoyment, etc.), have little knowledge, and have multifarious grave demerits.

मण्णंति जदो णिच्चं मणेण णिउणा मणुक्कडा जम्हा ।

मण्णुब्भवा य सव्वे तम्हा ते माणुसा भणिदा ॥१९४९॥

अर्थ- जो नित्य ही हेय-उपादेय, तत्व-अतत्व, आप्त-अनाप्त धर्म-अधर्म आदिका विचार करें और जो मनके द्वारा गुणदोषादिका विचार स्मरण आदि कर सकें, जो पूर्वोक्त मनके विषयमें उत्कृष्ट हों, शिल्पकला आदिमें भी कुशल हों, तथा युगकी आदिमें जो मनुओंसे उत्पन्न हों उनको मनुष्य कहते हैं।

Trans. 149. Mānuṣyāḥ (men) are so called because they always have discrimination, are mentally well-qualified, strong of will, and are descended from the Manus (or Kula-karas, the leaders of men).

सामण्णा पंचिदी पज्जत्ता जोणिणी अपज्जत्ता ।

तिरिया णरा तहा वि य पंचिदिय भंगदो हीणा ॥१५०॥

अर्थ- तिर्यचोंके पाँच भेद होते हैं- सामान्य तिर्यच, पंचेन्द्रिय तिर्यच, तिर्यच, पर्याप्त योनिनी तिर्यच और अपर्याप्त तिर्यच। इन्हीं पाँच भेदोंमें से पंचेन्द्रियके एक भेदको छोड़कर बाकीके ये ही चार भेद मनुष्योंके होते हैं।

Trans. 150. Sub-humans are general, (Sāmānya), 2. Five-sensed, (Pañcendriya) 3. Developable, (Paryāpta), 4. Female sex, (Yonimat) and non-developable (Aparyāpta). The same (are the divisions) of human souls less the division of five-sensed, (as all human-souls are 5-sensed).

दीव्वंति जदो णिच्चं गुणेहिं अट्टेहिं दिव्वभावेहिं ।

भासंत दिव्वकाया तह्मा ते वण्णिया देवा ॥१५१॥

अर्थ- जो देवगतिमें होने वाले या पाये जाने वाले परिणामों-परिणमनोंसे सदा सुखी रहते हैं और जो अणिमा, महिमा आदि आठ गुणों (ऋद्धियों) के द्वारा सदा अप्रतिहतरूपसे विहार करते हैं और जिनका रूप, लावण्य, यौवन आदि सदा प्रकाशमान रहता है, उनको परमागममें देव कहा है।

Trans. 151. Devas (Celestials) are so called because they always amuse themselves with their eight heavenly acquisitions, and have shining heavenly constitutions.

जाइ-जरा-मरण-भया संजोग-विजोग दुक्खसण्णाओ ।

रोगादिगा य जिस्से ण संति सा होदि सिद्ध गई ॥१५२॥

अर्थ- एकेन्द्रियसे लेकर पंचेन्द्रिय तक पाँच प्रकारकी जाति, बुढ़ापा, मरण, भय, अनिष्ट संयोग, इष्ट वियोग, इनसे होने वाले दुःख आहारादि विषयक सज्ञाएँ- वांछाएँ और रोग आदिकी व्याधि इत्यादि विरुद्ध विषय जिस गतिमें नहीं पाये जाते उसको सिद्ध गति कहते हैं।

Trans. 152. The condition of Liberation (Siddha-Gati) is that in which there are no birth, dotage, death or fear, (no) miseries arising from (undesirable accompaniments and from deprivation (of desirable objects), (no) animated-feelings, and no diseases, etc.

सामण्णा णेरइया घणअंगुल विदियमूल गुणसेढी ।

विदियादि वारदसअड छत्तिदुणिजपदहिदा सेढी ॥१५३॥

अर्थ- सामान्यतया सम्पूर्ण नारियोंका प्रमाण घनांगुलके दूसरे वर्गमूलसे गुणित जगच्छ्रेणी प्रमाण है। द्वितीयादि पृथिवियोंमें रहने वाले-पाये जाने वाले नारकियोंका प्रमाण क्रमसे अपने बारहवें, दशवें, आठवें, छठे, तीसरे और दूसरे वर्गमूलसे भक्त जगच्छ्रेणी प्रमाण समझना चाहिए।

Trans. 153. Hellish souls in all (are equal to the number of the spatial units in) (Jagat) śreṇī (the universe line) multiplied by the second square root (i.e. the fourth root) of one cubic finger (ghanāṅgula). (Hellish souls) in the second and other (i.e. the third, fourth, fifth, sixth and seventh hells are in number equal to the quotient of the spatial units of the (universal) line divided by its own twelvth, tenth, eighth, sixth, third and second root (respectively).

हेट्टिमछप्पुढवीणं रासिविहीणो दु सव्वरासी दु ।

पढमावणिम्हि रासी णेरइयाणं तु णिद्वदो ॥१५४॥

अर्थ- नीचेके छह पृथिवियोंके नारकियोंका जितना प्रमाण हो उसको सम्पूर्ण नारक राशिमें से घटानेपर जो शेष रहे उतना ही प्रथम पृथ्वीके नारकियोंका प्रमाण है।

Trans. 154. The total number of all the hellish souls minus the total of the hellish souls of the six lowest earths is declared to be the total number of the hellish beings of the first hell.

संसारी पंचक्खा तप्पुण्णा तिगदिहीणया कमसो ।
सामण्णा पंचिंदी पंचिंदिय पुण्ण तेरिक्खा ॥१५५॥

अर्थ- सम्पूर्ण जीवराशिमें से सिद्धराशिको घटानेपर जितना प्रमाण रहे उतना ही संसार राशिका प्रमाण है। संसारराशिमें से नारक, मनुष्य और देव इन तीन राशियोंको घटानेपर जो शेष रहे उतना ही सामान्य तिर्यचोंका प्रमाण है। सम्पूर्ण पंचेन्द्रिय जीवराशिका जितना प्रमाण है, उसमेंसे उक्त तीन गतिसम्बन्धी समस्त जीवराशिके प्रमाणको घटानेपर जितना प्रमाण शेष रहे उतने पंचेन्द्रिय तिर्यच हैं तथा पर्याप्तकोंके प्रमाणमेंसे उक्त तीन गतिके पंचेन्द्रिय पर्याप्त जीवोंका प्रमाण घटानेपर जो शेष रहे उतने ही तिर्यच पंचेन्द्रिय पर्याप्त जीव हैं।

Trans. 155. By subtracting from all mundane, from all five-sensed, and from all such developable (five-sensed) souls, (all mundane, all five-sensed, and all developable five-sensed souls) in (all) the three conditions of existence (hellish, celestial and human), (we get the number of) general sub-human, five-sensed (sub-human) and developable (five sensed) sub-human respectively.

छस्सय जोयण कदिहद जगपदरं जोणिणीण परिमाणं ।
पुण्णूणा पंचक्खा तिरिय अपज्जत्त परिसंखा ॥१५६॥

अर्थ- छह सौ योजनके वर्गका जगत्प्रतरमें भाग देनेसे जो लब्ध आवे उतना ही योनिनी तिर्यचोंका प्रमाण है और पंचेन्द्रिय तिर्यचोंमें से पर्याप्त तिर्यचोंका प्रमाण घटानेपर जो शेष रहे उतना अपर्याप्त पंचेन्द्रिय तिर्यचोंका प्रमाण है।

Trans. 156. (The quotient of the spatial units in) the universal line-square (Jagatpratara) divided by (the spatial units of) six hundred square yojanas, is the number of the female sub-human beings. (The number of) the developable (five-sensed sub-human beings) subtracted from (the total number of) the five sensed (sub-human beings; would give us) the number of the non-developable (five-sensed) sub-human beings.

सेढीसूई अंगुल आदिम तदिय पद भाजिदेगूणा ।
सामण्ण मणुस रासी पंचम कदि धणसमा पुण्णा ॥१५७॥

अर्थ- सूच्यंगुलके प्रथम और तृतीय वर्गमूलका जगच्छ्रेणीमें भाग देनेसे जो शेष रहे उसमें एक और घटानेपर जो शेष रहे उतना सामान्य मनुष्य राशिका प्रमाण है। इसमेंसे द्विरूपवर्गधारामें उत्पन्न पाँचवें वर्ग (बादल) के घनप्रमाण पर्याप्त मनुष्योंका प्रमाण है।

Trans. 157. (If we) divide the (Universal) line (Jagat Śreṇi) by the square-root of a linear-finger (Sūcyaṅgula), and divide the quotient by the third root (of a linear finger), (and then) subtract one (therefrom), (we obtain) the total number of all human beings (in the universe). (The number of) Developable (human beings alone) is equal to the cube of 2 squared 5 times, (expressed algebraically,

$$\{((((2)^2)^2)^2)^2\}^3.$$

तललीन मधुग विमलं धूमसिलागाविचोरभयमेरु ।
तटहरि खझसा होंति हु माणुस पज्जत्त संखंका ॥१५८॥

अर्थ- तकारसे लेकर सकार पर्यन्त जितने अक्षर इस गाथामें बताये हैं, उतने ही अंकप्रमाण पर्याप्त मनुष्योंकी संख्या है।

Trans. 158. The number of the developable human souls is 79, 22, 81, 62, 51, 42, 64, 33, 75, 93, 54, 39, 50, 336.

पञ्जत्त मणुस्साणं तिचउत्थो माणुसीण परिमाणं ।

सामण्णा पुण्णूणा मणुव अपञ्जत्तगा होंति ॥१५६॥

अर्थ- पर्याप्त मनुष्योंका जितना प्रमाण है उसमें तीन चौथाई मानुषियों का प्रमाण है। सामान्य मनुष्यराशियों से पर्याप्तकोंका प्रमाण घटाने पर जो शेष रहे उतना ही अपर्याप्त मनुष्योंका प्रमाण है।

Trans. 159. The number of (developable) female is three-fourth of the developable human souls. (While absolutely) non-developable human souls are (equal to) all human minus the developable souls.

तिण्णि सय जोयणाणं वेसद छप्पण्ण अंगुलाणं च ।

कदिहदपदरं वेतर जोइसिया च परिमाणं ॥१५७॥

अर्थ- तीन सौ योजनके वर्गका जगत्प्रतरमें भाग देनेसे जो लब्ध आवे उतना व्यन्तर देवोंका प्रमाण है। और २५६ प्रमाणांगुलोंके वर्गका जगत्प्रतरमें भाग देनेसे जो लब्ध आवे उतना ज्योतिषियों का प्रमाण है।

Trans. 160. The universal line square (Jagat pratara) divided (respectively) by three hundred square Yojanas and by two hundred and fifty-six square fingers (gives us) the number of the peripetatics (Vyantaras) and the Stellars (Jyotiṣīs).

घणअंगुल पढमपदं तदियपदं सेढि संगुणं कमसो ।

भवणे सोहम्मदुगे देवाणं होदि परिमाणं ॥१५८॥

अर्थ- जगच्छ्रेणीके साथ घनांगुलके प्रथम वर्गमूलका गुणा करनेसे भवनवासी, और तृतीय वर्गमूलका गुणा करनेसे सौधर्म द्विक- सौधर्म और ऐशान स्वर्गके देवोंका प्रमाण निकलता है।

Trans. 161. The number of the Residential-celestial souls (Bhavanvāsī), and the heavenly souls in the Saudharma pair (the first, and the second Īśāna heavens) are gained by multiplying the universal line, by the square and third root of one cubic finger (ghanāṅgula), respectively.

तत्तो एगारणवसग पणचउणिय मूलभाजिदा सेढी ।

पल्लासंखेज्जदिमा पत्तेयं आणदादि सुरा ॥१५९॥

अर्थ- इसके अनन्तर अपने (जगच्छ्रेणीके) ग्यारहवें, नवमें, सातवें, पाँचवें एवं चौथे वर्गमूलसे भाजित जगच्छ्रेणी प्रमाण तीसरे कल्पसे लेकर बारहवें कल्प तकके देवोंका प्रमाण है। आनतादिकमें आगेके देवोंका प्रमाण पल्यके असंख्यातवें भाग प्रमाण है।

Trans. 162. (The number in the five pairs of heavens) above them (is equal to) the quotient of the universal line divided, respectively, by its own eleventh, ninth, seventh, fifth and fourth square root.

The heavenly souls in each of the Ānata and other heavens are an innumerable part of a palya.

तिगुणा सत्तगुणा वा सब्बद्धा माणुसी पमाणादो ।

सामण्ण देवरासी जोइसियादो विसेसाहिया ॥१६०॥

अर्थ- मानुषियोंका जितना प्रमाण है उससे तिगुना अथवा सातगुना सर्वार्थसिद्धिके देवोंका प्रमाण है। ज्योतिष्क देवोंका जितना प्रमाण है उससे कुछ अधिक सम्पूर्ण देवराशिका प्रमाण है।

Trans. 163. The number of souls in Sarvārtha-siddhi is (variously) declared to be, three-fold or seven-fold the number of women.

The total number of all celestials in general, is much larger than the number of the stellars (Jyotiṣī).

अहमिंदा जह देवा अविसेसं अहमहंति मण्णंता ।

ईसंति एक्कमेक्कं इंदा इव इंदिये जाण ॥१६१॥

अर्थ- जिस प्रकार अहमिन्द्र देवोंमें दूसरेकी अपेक्षा न रखकर प्रत्येक अपने-अपनेको स्वामी मानते हैं, उसी प्रकार इन्द्रियाँ भी हैं।

Trans. 164. Know, (that) each one of the senses (Indriya) is (independant) like the Indras, called Ahmindra-Deva, each of whom considers himself a master, without distinction.

मदिआवरणखओवसमुत्थ विसुद्धी हु तज्जबोहो वा ।

भाविंदियं तु दव्वं देहुदयज देहचिण्हं तु ॥१६५॥

अर्थ- इन्द्रियके दो भेद हैं- एक भावेन्द्रिय दूसरी द्रव्येन्द्रिय। मतिज्ञानावरण कर्मके क्षयोपशमसे उत्पन्न होने वाली विशुद्धि अथवा उस विशुद्धिसे उत्पन्न होने वाले उपयोगात्मक ज्ञानको भावेन्द्रिय कहते हैं और शरीर नामकर्मके उदयसे बननेवाले शरीरके चिन्ह विशेषको द्रव्येन्द्रिय कहते हैं।

Trans. 165. Subjective sense (Bhāva Indriya) is the purification (or the knowing power) arising by the destructive subsidence of the sensitive-knowledge-obscuring-Karma. (It is) also, the conscious attention of the soul (Bodha), caused by it. The objective sense (Darvya Indriya) is the physical organ formed by the operation of the body-making-Karma (Śārira Nāma-Karma).

See Tattvārtha Sūtra, S.B.J. 2, Vol. II, p. 64, Chap. II, 16-17-18.

फास-रस-गंध-रूवे सहे णाणं च चिण्हयं जेसिं ।

इगिवितिचदुपंचिंदिय जीवा णियभेय भिण्णा ओ ॥१६६॥

अर्थ- जिन जीवोंके बाह्य चिन्ह (द्रव्येन्द्रिय) और उसके द्वारा होने वाला स्पर्श, रस, गंध, रूप, शब्द इन विषयोंका ज्ञान हो उनको क्रमसे एकेन्द्रिय, द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, पंचेन्द्रिय जीव कहते हैं और इनके भी अनेक अवान्तर भेद हैं।

Trans. 166. Those living beings which possess the characterstic cognisability of touch, taste, smell, colour and hearing are one, two, three, four and five sensed with their different varieties.

एइंदियस्स फुसणं एक्कं वि य होदि सेसजीवाणं ।

होंति कमउट्ठियाइं जिब्भाघाणच्छि सोत्ताइं ॥१६७॥

अर्थ- एकेन्द्रिय जीवके एक स्पर्शनेन्द्रिय ही होती है। शेष जीवोंके क्रमसे जिह्वा, घ्राण, चक्षु और श्रोत्र बढ़ जाते हैं।

Trans. 167. One-sensed soul has the one (sense) of touch only, while the rest of the souls have a gradually increasing (number of the sense organs of) tongue, nose, eye and ear.

धणुवीसडदसयकदी जोयणछादालहीण तिसहस्सा ।

अट्टसहस्स धणूणं विसया दुगुणा असण्णि ति ॥१६८॥

अर्थ- स्पर्शन, रसना, घ्राण इनका उत्कृष्ट विषयक्षेत्र क्रमसे चार सौ धनुष, चौसठ धनुष, सौ धनुष प्रमाण है। चक्षुका उत्कृष्ट विषयक्षेत्र दो हजार नौ सौ चौअन योजन है और श्रोत्रेन्द्रियका उत्कृष्ट विषयक्षेत्र आठ हजार धनुष प्रमाण है और आगे असंज्ञिपर्यन्त दूना-दूना विषयक्षेत्र बढ़ता गया है।

Trans. 168. The power of cognisance (of the sensed, in the souls in whom they first appear is) respectively square of twenty, eight, and ten bow-lengths (dhanuṣas)-three thousand minus forty-six of yojanas, and eight thousand bow-lengths. It increases double fold (continuously in the case of two-sensed), to irrational (five-sensed souls).

सण्णिस्स वार सोदे तिण्हं णव जोयणाणि चक्खुस्स ।

सत्तेतालसहस्सा बेसदत्तेसट्ठि मदिरेया ॥१६९॥

अर्थ- संज्ञी जीवके स्पर्शन, रसना, घ्राण इन तीन इन्द्रियोंमेंसे प्रत्येकका विषयभूत क्षेत्र नौ-नौ योजन है और श्रोत्रेन्द्रियका उत्कृष्ट विषयक्षेत्र बारह योजन है तथा चक्षुरिन्द्रियका उत्कृष्ट विषयक्षेत्र सैंतालीस हजार दो सौ त्रेसठ योजनसे कुछ अधिक है।

Trans. 169. In the rational beings (the cognising capacity) of hearing (extends to) twelve Yojanas, of the three sensed (touch, taste and smell). to nine (Yojanas) (each), and of the eye to a little over forty seven thousand two hundred and sixty-three (Yojanas).

तिणिणसयसट्टिविरहिद लक्खं दसमूलताडिदे मूलं ।
णवगुणिदे सट्टिहिदे चक्खुप्फासस्स अद्धाणं ॥१७०॥

अर्थ- तीन सौसाठ कम एकलाख योजन जम्बूद्वीपके विष्कम्भका वर्ग करना और उसका दशगुण करके वर्गमूल निकालना, इससे जो राशि उत्पन्न हो उसमें नवका गुणा और साठका भाग देनेसे चक्षुरिन्द्रियका उत्कृष्ट विषयक्षेत्र निकलता है ।

Trans. 170. The range of Ocular Vision is one lac minus three hundred and sixty (Yojanas squared), multiplied by ten and then reduced to its square root then multiplied by nine and divided by sixty would give us the range of sight.

चक्खू सोदं घाणं जिब्भायारं मसूरजवणाली ।
अतिमुत्तखुरप्पसमं फासं तु अण्येयसंठाणं ॥१७१॥

अर्थ- मसूर के समान चक्षुका, जवकी नली के समान श्रोत्रका, तिलके फूलके समान घ्राणका तथा खुरपा के समान जिह्वाका आकार है और स्पर्शनेन्द्रियके अनेक आकार हैं ।

Trans. 171. The shape of the eye, ear, nose, and tongue is (respectively) like a lentil grain (Masura), the furrow in a barley grain (Yavanālī), Atimuktā, Kadamba-flower) and a hoet (Kṣurapra) (respectively), while the sense of touch is of various forms (Sansthāna).

See Tattva S. (S. B. J. Vol. II), Chapter II, 17.

अंगुलअसंखभागं संखेज्जगुणं तदो विसेसहियं ।
तत्तो असंखगुणिदं अंगुलसंखेज्जयं तत्तु ॥१७२॥

अर्थ- आत्मप्रदेशोंकी अपेक्षा चक्षुरिन्द्रियका अवगाहन घनांगुलके असंख्यातवें भागप्रमाण है और इसमें संख्यातगुणा श्रोत्रेन्द्रिय का अवगाहन है । श्रोत्रेन्द्रियका जितना प्रमाण है उससे पत्यके असंख्यातवें भाग अधिक घ्राणेन्द्रियका अवगाहन है । घ्राणेन्द्रियके अवगाहनसे पत्यके असंख्यातवें भागका गुणा करनेपर रसनेन्द्रियके अवगाहनका प्रमाण निष्पन्न होता है परन्तु सामान्यकी अपेक्षा गुणाकार और भागहारका अपवर्तन करनेसे उक्त चारों ही इन्द्रियोंका अवगाहन प्रमाण घनांगुलके संख्यातवें भागमात्र है ।

Trans. 172. (The eye, the ear, the nose and the tongue occupy spaces, respectively, equal to) and innumerable part of a (cubic) finger (Ghanāṅgula), numerable fold (of the former, a little more than the preceding one, and innumerable fold of the last. The last is thus equal to a numerable part of a cubic finger.

सुहुमणिगोदअपज्जत्तयस्स जादस्स तदियसमयम्हि ।
अंगुलअसंखभागं जहण्णमुक्कस्सयं मच्छे ॥१७३॥

अर्थ- स्पर्शनेन्द्रियकी जघन्य अवगाहना घनांगुलके असंख्यातवें भागप्रमाण है और यह अवगाहना सूक्ष्म निगोदिया लब्ध्यपर्याप्तकके उत्पन्न होनेसे तीसरे समयमें होती है । उत्कृष्ट अवगाहना महामत्स्यके होती है, इसका प्रमाण संख्यात घनांगुल है ।

Trans. 173. The minimus (size of the organ of touch) is an innumerable part of a (cubic) finger (Ghanāṅgula), (found) in the (absolutely) undevelopable fine Nigoda (vegetable) in the third instant after its birth. The maximum (size is found) in the Great Fish.

ण वि इंदियकरणजुदा अवग्गहादीहिं गाहया अत्थे ।

णेव य इंदियसोक्खा अणिंदियाणंतणाणसुहा ॥१७४॥

अर्थ- जीवन्मुक्त तथा परम मुक्त जीव इन्द्रियोंकी क्रियासे युक्त नहीं है तथा वे अवग्रहादिक क्षायोपशमिक ज्ञानके द्वारा पदार्थका ग्रहण नहीं करते। इसी तरह वे इन्द्रियजन्य सुखसे भी युक्त नहीं हैं, क्योंकि उन दोनों ही प्रकारके जीवोंका अनन्त ज्ञान और अनन्त सुख अतीन्द्रिय है।

Trans. 174. (The adorable Arahats, Liberated souls, Siddhas) have no sense-activities, (nor do they) cognise objects by (the process of) perception (Avagraha) etc.; nor have they the sense-pleasures. They enjoy infinite knowledge and happiness without (the help of) the senses.

थावरसंखपिपीलिय भमरमणुस्सादिगा सभेदा जे ।

जुगवारमसंखेज्जा णंतानंता णिगोदभवा ॥१७५॥

अर्थ- स्थावर एकेन्द्रिय जीव, शंख आदिक द्वीन्द्रिय, चींटी आदि त्रीन्द्रिय, भ्रमर आदि चतुरिन्द्रिय, मनुष्यादिक पंचेन्द्रिय जीव अपने-अपने अंतर्भेदोंसे युक्त असंख्यातासंख्यात है और निगोदिया जीव अनन्तानन्त हैं।

Trans. 175. The immobiles, (excepting Nigoda) and conches (Shāṅkha), ants (Pipīlikā), humble bees (Bhramara) and Human beings and the like (two sensed three, four and five-sensed beings) together with their different varieties are innumerable multiplied by innumerable, (Asaṁkhyātāsaṁkhyāta) each. The Nigoda souls are infinite multiplied by infinite (Anantānantā.)

For an explanation of these numerical terms see Appendix B. Jain Gem Dictionary.

तसहीणो संसारी एयक्खा ताण संखगा भागा ।

पुण्णाणं परिमाणं संखेज्जदिमं अपुण्णाणं ॥१७६॥

अर्थ- संसारराशियोंमेंसे त्रसराशिको घटानेपर जितना शेष रहे उतने ही एकेन्द्रिय जीव हैं और एकेन्द्रिय जीवोंकी राशिमें संख्यातका भाग देना उसमें एक प्रमाण अपर्याप्तक और शेष बहुभागप्रमाण पर्याप्तक जीव हैं।

Trans. 176. The number of all mundane souls minus (the number of) mobiles is (the number of) one sensed beings. The non-developables are one numerable part of them, while the remaining) numerable parts (give us) the number of the developable ones.

बादरसुहमा तेषिं पुण्णापुण्णे त्ति छव्विहाणं पि ।

तक्कायमग्गणाये भणिज्जमाणक्कमो णेयो ॥१७७॥

अर्थ- एकेन्द्रिय जीवोंके सामान्यसे दो भेद हैं बादर और सूक्ष्म। इसमें भी प्रत्येकके पर्याप्तक और अपर्याप्तकके भेदसे दो-दो भेद हैं। इस प्रकार एकेन्द्रियोंकी छह राशियोंकी संख्याका क्रम कायमार्गणामें कहेंगे वहाँसे ही समझ लेना।

Trans. 177. The number of the six kinds of gross and fine, developable and non-developable (one sensed souls shall, it should be known, be described in order, in the chapter on) the embodiment soul quests (kāya Mārgaṇā.)

बित्तिचपमाणमसंखेण वहिदपदरंगुलेण हिदपदरं ।

हीणकमं पडिभागो आवलियासंखभागो दु ॥१७८॥

अर्थ- प्रतरांगुलके असंख्यातवें भागका जगत्प्रतरमें भाग देनेसे जो लब्ध आवे उतना सामान्य त्रसराशिका प्रमाण है परन्तु पूर्व-पूर्व द्वीन्द्रियादिककी अपेक्षा उत्तरोत्तर त्रीन्द्रियादिकका प्रमाण क्रमसे हीन-हीन है और इसका प्रतिभागहार आवलिका असंख्यातवाँ भाग है।

Trans. 178. If we divide a square finger breadth (Pratarāṅgula) by an innumerable number, and then divide by this quotient the square of the universal line (Jagata pratara) we obtain the total number of the 2, 3, 4 and 5 sensed (souls). The number (of the two to five sensed beings) is in a decreasing order, and the common divisor is an innumerable part of a wink (Āvalī).

बहुभागे समभागो चउण्णमेदेसिमेक्कभागम्हि ।

उत्तकमो तत्थ वि बहु भागो बहुगस्स देओ दु ॥१७६॥

अर्थ- त्रसराशिमें आवलिके असंख्यातवें भागका भाग देकर लब्ध बहुभागके समान चार भाग करना और एक-एक भागको द्वीन्द्रियादि चारोंहीमें विभक्त कर, शेष एक भागमें फिरसे आवलिके असंख्यातवें भागका भाग देना चाहिये और लब्ध बहुभागको बहुत संख्यावालेको देना चाहिये इस प्रकार अंतर्पर्यन्त करना चाहिये।

Trans. 179. (Divide the total number of the mobiles by an innumerable part of an Āvalī. From total subtract the quotient, the balance is Baubhāga. (Divide the Bahubhāga equality into these four 2, 3, 4 and 5 sensed). (The remaining) one part (i.e. The quotient) is to be treated in the above way. (Divided by an innumerable part of an Āvalī, from it, subtract the quotient. That will give its Bahubhāga) here also give this Bahubhāga (greater part) to the most numerous class and so on.

तिविपचपुण्णपमाणं पदरंगुलसंखभागहिदपदरं ।

हीणकमं पुण्णूणा बितिचपजीवा अपज्जता ॥१८०॥

अर्थ- प्रतरांगुलके संख्यातवें भागका जगत्प्रतरमें भाग देनेसे जो लब्ध आवे उतना ही त्रीन्द्रिय, द्वीन्द्रिय, पंचेन्द्रिय, चतुरिन्द्रियमेंसे प्रत्येकके पर्याप्तकका प्रमाण है परन्तु यह प्रमाण 'बहुभागे समभागो' इस गाथामें कहे हुए क्रमके अनुसार उत्तरोत्तर हीन-हीन है। अपनी-अपनी समस्त राशिमेंसे पर्याप्तकोंका प्रमाण घटानेपर अपर्याप्तक द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय और पंचेन्द्रिय जीवोंका प्रमाण निकलता है।

Trans. 180. Divide the square of the universal line, (Jagat Pratara) by an innumerable part of the square of a finger breadth, (pratarāṅgula,) (and the result is) the total number of developable 3, 2, 5 and 4 sensed. (Their respective numbers are in a) gradually decreasing order. Deduct (the number of) developables (from the total number, and the balance represents the number of) undevelopables of the 2, 3, 4 and 5, sensed souls.

जाईअविणाभावी तसथावरउदयजो हवे काओ ।

सो जिणमदम्हि भणिओ पुढवीकायादिछब्भेयो ॥१८१॥

अर्थ- जाति नामकर्मके अविनाभावी त्रस और स्थावर नामकर्मके उदयसे होने वाली आत्माकी पर्यायको जिनमतमें काय कहते हैं। इसके छह भेद हैं- पृथिवी, जल, अग्नि, वायु, वनस्पति और त्रस।

Trans. 181. Embodiment is caused by the operation of mobile and immobile-body making Karmas which are inseparably connected with the genus, jāti, (body making Karma). It (embodiment) is spoken of in Jaina philosophy of six kinds, earth embodiments and others.

पुढवी आऊ तेऊ वाऊ कम्मोदयेण तत्थेव ।

णियवण्ण चउक्कजुदो ताणं देहो हवे णियमा ॥१८२॥

अर्थ- पृथिवी, अप्-जल, तेज-अग्नि और वायु इनका शरीर नियमसे अपने-अपने पृथिवी आदि नामकर्मके उदयसे अपने-अपने योग्य रूप, रस, गन्ध, स्पर्शसे युक्त पृथिवी आदिकमें बनता है।

Trans. 182. Bodies (of earth, water, fire, and air bodied souls) exist through the operation of the earth, water, fire, and air body-making Karmas, as a rule, with their colour quardrate (including smell, taste and touch), in their (respective materials).

बादरसुहुमुदयेण य बादरसुहुमा ह्वंति तदेहा ।

घादसरीरं थूलं अघाददेहं हवे सुहुमं ॥१८३॥

अर्थ- बादर नामकर्मके उदयसे बादर और सूक्ष्म नामकर्मके उदयसे सूक्ष्म शरीर हुआ करता है। जो शरीर दूसरेको रोकनेवाला हो अथवा जो स्वयं दूसरेसे रुके उसको बादर-स्थूल कहते हैं और जो दूसरेको न तो रोके और न स्वयं दूसरेसे रुके उसको सूक्ष्म शरीर कहते हैं।

Trans. 183. (Their bodies are gross or fine through the operation of gross and fine-body-making Karmas) Obstructive, (ghāta)-body is gross, while non-obstructive (aghāta) body is fine.

तदेहमंगुलस्स असंखभागस्स विंदमाणं तु ।

आधारे थूला ओ सव्वत्थ णिरंतरा सुहुमा ॥१८४॥

अर्थ- बादर और सूक्ष्म दोनों ही तरहके शरीरोंका प्रमाण घनांगुलके असंख्यातवें भाग प्रमाण है। इनमेंसे स्थूल शरीर आधारकी अपेक्षा रखता है किन्तु सूक्ष्म शरीर विना अन्तर-व्यवधानके ही सब जगह अनन्तानन्त भरे हुए हैं उनको आधारकी अपेक्षा नहीं रहा करती।

Trans. 184. (Know) thou (that) their bodies (are equal to) an innumerable part of a cubic finger. Gross bodies need support but fine bodies need no support and exist, every-where (in the universe) with nothing intervening between them.

उदये दु वणप्फदिकम्मस्स य जीवा वणप्फदी होंति ।

पत्तेयं सामण्णं पदिट्ठिदिदरे ति पत्तेयं ॥१८५॥

अर्थ- स्थावर नामकर्मका अवान्तर विशेष भेद जो वनस्पति नामकर्म है उसके उदयसे जीव वनस्पति होते हैं। उनके दो भेद हैं- एक प्रत्येक दूसरा साधारण। प्रत्येकके भी दो भेद है; प्रतिष्ठित और अप्रतिष्ठित।

Trans. 185. By the operation of the vegetable body-making Karma, souls become vegetable-bodied. (They are individual) (Pratyeka) (i.e. one body one soul) or common (Sāmānya or Sādhāraṇa i.e. one body many souls). Individuals (are) host (Pratiṣṭhita with comon Sādhāraṇa, parasites) or the other (i.e. non-host Apratiṣṭhita without common (Sādhāraṇa) parasites).

मूलग्गपोरबीजा कंदा तह खंदबीज बीजरुहा ।

सम्मूच्छिमा य भणिया पत्तेयाणंत काया य ॥१८६॥

अर्थ- जिन वनस्पतियों का बीज, मूल, अग्र, पर्व, कन्द अथवा स्कन्ध है अथवा जो बीजसे उत्पन्न होती हैं यद्वा जो सम्मूर्च्छन हैं वे सभी वनस्पतियाँ सप्रतिष्ठित तथा अप्रतिष्ठित दोनों प्रकारकी होती हैं।

Trans. 186. Vegetables which grow from a root (mūla), from the shoot, (Agra), (of a plant), from a joint (parva), from a bulb, (Kanda), from trunk, (Skandha), from seed (Veeja) and vegetables which have no such seed as root etc. (sammūr chhima) have been declared (to be) individual with host bodies. (Pratiṣṭhita Pratyeka), or without them, (non-host Apratiṣṭhita).

गूढसिरसंधिपव्वं समभंगमहीरुहं च छिण्णरुहं ।

साहारणं सरीरं तव्विवरीयं च पत्तेयं ॥१८७॥

अर्थ- जिनकी शिरा-बहिःस्नायु, सन्धि-रेखाबन्ध, और पर्व-गाँठ अप्रकट हों और जिसका भंग करनेपर समान भंग हो और दोनों भंगोंमें परस्पर हीरुक-अन्तर्गत सूत्र-तन्तु न लगा रहे, तथा छेदन करने पर भी जिसकी पुनः वृद्धि हो जाये, उनको सप्रतिष्ठित प्रत्येक वनस्पति कहते हैं और जो विपरीत हैं-इन चिन्होंसे रहित हैं वे सब अप्रतिष्ठित प्रत्येक वनस्पति कही गयी हैं।

Trans. 187. When the seed becomes transformed into a nucleus, the same soul (which left it before) or some other may be born there. These roots, etc. (i.e. the seeds) are individual (non-host) in the first (antar-muhūrta) of their bith).

मूले कंदे छल्ली पवाल सालदलकुसुम फलबीजे ।
समभंगे सदि णंता असमे सदि होति पत्तेया ॥१८८॥

अर्थ- जिस वनस्पतिके मूल, कन्द, त्वचा, प्रवाल-नवीन कोंपल अथवा अंकुर, क्षुद्रशाखा टहनी, पत्र, फूल, फल तथा बीजोंको तोड़नेसे समान भंग हो, विना ही हीरुकके भंग हो जाये उसको सप्रतिष्ठित प्रत्येक वनस्पति कहते हैं और जिनका भंग समान न हो उनको अप्रतिष्ठित प्रत्येक वनस्पति कहते हैं।

Trans. 188. The vegetables in which sinews, (shirā), links, (Sandhi, and joints, (Parva), are unexposed, or which break clean (Sama-bhaṅga), which have no threads inside (Ahiruka) and which can grow from pieces are host bodies, while those that are reverse of these are individual (non-host).

See (note to Gāthā 73).

कंदस्स व मूलस्स व सालाखंदस्स वावि बहुलतरी ।
छल्ली साणंतजिया पत्तेयजिया तु तणुकदरी ॥१८९॥

अर्थ- जिस वनस्पतिके कन्द मूल क्षुद्रशाखा या स्कंधकी छाल मोटी हो उसको अनन्तजीव-सप्रतिष्ठित प्रत्येक कहते हैं और जिसकी छाल पतली हो उसको अप्रतिष्ठित प्रत्येक वनस्पति कहते हैं।

Trans. 189. Roots, bulbs, barks, tendrils, stems, leaves, flowers, fruits and seeds when clean breaking, (Sama-bhaṅga) are host (individual souled vegetables), when not-clean breaking, (they) are (non-host) individual.

बीजे जोणीभूदे जीवो चंकमदि सो व अण्णो वा ।
जे वि य मूलादीया ते पत्तेया पढमदाए ॥१९०॥

अर्थ- जिस योनीभूत बीजमें वही जीव या कोई अन्य जीव आकर उत्पन्न हो वह और मूल आदिक वनस्पतियाँ प्रथम अवस्थामें अप्रतिष्ठित प्रत्येक होती हैं।

Trans. 190. If the bark of any bulb, root, stem, or trunk is very thick, it is host but if very thin it is individual (non-host).

साहारणोदयेण णिगोदसरीरा हवंति सामण्णा ।
ते पुण दुविहा जीवा वादर सुहुमा ति विण्णेया ॥१९१॥

अर्थ- जिन जीवोंका शरीर साधारण नामकर्मके उदयके कारण निगोद रूप होता है उन्हींको सामान्य या साधारण कहते हैं। इनके दो भेद हैं- एक बादर दूसरा सूक्ष्म।

Trans. 191. By the operation of the common, (sādhāraṇa, body making Karma), the Nigoda bodies become group souled. They should again be known to be of two kinds gross or fine.

साहारणमाहारो साहारणमाणपाणगहणं च ।
साहारणजीवाणं साहारणलक्खणं भणियं ॥१९२॥

अर्थ- इन साधारण जीवोंका साधारण अर्थात् समान ही तो आहार होता है और साधारण समान अर्थात् एकसाथ ही श्वासोच्छ्वास होता है इस तरहसे साधारण जीवोंका लक्षण परमाणुमें साधारण ही बताया है।

Trans. 192. The common differentia of these common (group) souls is said to be common food and common respiration.

जत्थेक्क मरइ जीवो तत्थ दु मरणं हवे अणंताणं ।
वक्कमइ जत्थ एक्को वक्कमणं तत्थ णंताणं ॥१९३॥

अर्थ- साधारण जीवोंमें जहाँ पर एक जीव मरण करता है वहाँ पर अनन्त जीवोंका मरण होता है और जहाँ पर एक जीव उत्पन्न होता है वहाँ अनन्त जीवोंका उत्पाद होता है।

Trans. 193. In that (common body) when one soul dies, there is the death of infinite souls (with it), (while) when one is born there is the birth of infinite souls there.

खंधा असंखलोगा अंडर आवास पुलवि देहा वि ।

हेट्टिल्ल जोणिगाओ असंख लोणेण गुणिकमा ॥१९४॥

अर्थ- स्कन्धोंका प्रमाण असंख्यात लोक प्रमाण है और अंडर, आवास, पुलवि तथा देह ये क्रमसे उत्तरोत्तर असंख्यात लोक असंख्यात लोक गुणित हैं क्योंकि वे सभी अधस्तन योनिक हैं- इनमें पूर्व-पूर्व आधार और उत्तरोत्तर आधेय हैं।

Trans. 194. The bodies (of group souled vegetables, (Vādara Nigoda) are innumerable times the spatial units of the universe, (and each Skandha contains as many) Aṇḍaras; (each Aṇḍara contains as many) Āvāsas; (each Āvāsa contains as many) Pulavīs (and each) Pulavī (contains as many Nigoda) bodies, Deha. Each next-coming nucleus abode (Yonika) is innumerable universe times (Loka Pramāṇa) the preceding one in due order.

जम्बूदीवं भरहो कोसल सागेद तग्घराइं वा ।

खंधंडर आवासा पुलवि सरीराणि दिट्ठता ॥१९५॥

अर्थ- जम्बूद्वीप भरतक्षेत्र कोशलदेश साकेत- अयोध्यानगरी और साकेत नगरीके घर ये क्रमसे स्कन्ध, अंडर, आवास, पुलवि और देहके दृष्टान्त हैं।

Trans. 195. Jambū Dvīpa, Bharata, Kośala, Sāketa, houses these are illustrations of Skandha, Aṇḍara, Āvāsa, Pulavī and Dehas.

एग णिगोद सरीरे जीवा दव्वप्पमाणदो दिट्ठा ।

सिद्धेहिं अणंत गुणा सव्वेण विदीदकालेण ॥१९६॥

अर्थ- समस्त सिद्धराशिका और सम्पूर्ण अतीत कालके समयोंका जितना प्रमाण है द्रव्यकी अपेक्षासे उनसे अनन्तगुणे जीव एक निगोदशरीरमें रहते हैं।

Trans. 196. From the substance points of view (the number of souls, in one Nigoda body) seen (by the Omniscient) are infinite times the number of all liberated souls of and (the number of instants of) all past time.

अत्थि अणंता जीवा जेहि ण पत्तो तसाण परिणामो ।

भावकलंक सुपउरा णिगोदवासं ण मुंचंति ॥१९७॥

अर्थ- ऐसे अनन्तानन्त जीव हैं कि जिन्होंने त्रसोंकी पर्याय अभी तक कभी भी नहीं पाई है और जो निगोद अवस्थामें होने वाले दुर्लेश्यरूप परिणामोंसे अत्यन्त अभिभूत रहनेके कारण निगोदस्थानको कभी नहीं छोड़ते।

Trans. 197. There are infinite souls which have never (so far) attained the condition of mobiles. Being thickly beset with impure through activities, they do not leave the residence in Nigoda.

विहि तिहि चदुहिं पंचहिं सहिया जे इंदिएहिं लोयमिह ।

ते तसकाया जीवा पेया वीरोवदेसेण ॥१९८॥

अर्थ- जो जीव दो, तीन, चार, पाँच इन्द्रियोंसे युक्त हैं उनको वीर भगवान्‌के उपदेशानुसार त्रसकाय समझना चाहिये।

Trans. 198. Those souls, in the universe, who exist with two, three, four or five senses should be understood as mobile-bodied as discoursed by Vīra (Lord Mahāvīra).

उववादमारणंतिय परिणदतसमुज्झिऊण सेसतसा ।

तसणालिबाहिरद्धि य णत्थि ति जिणेहिं णिद्धिं ॥१९९॥

अर्थ- उपपाद जन्मवाले और मारणान्तिक समुद्घातवाले त्रस जीवोंको छोड़कर बाकीके त्रस जीव त्रसनालीके बाहर नहीं रहते यह जिनेन्द्रदेवने कहा है।

Trans. 199. Excepting the mobiles in the condition of birth, (Upapāda) death bed and (Omniscient over flow) all the other mobiles do not exist out of the mobile channel. It has been said by the Conquerors.

पुढवी आदि चउण्हं केवलि आहारदेवणिरयंगा ।

अपदिट्टिदा णिगोदेहिं पदिट्टिदंगा हवे सेसा ॥२००॥

अर्थ- पृथिवी जल, अग्नि और वायुकायिक जीवोंका शरीर तथा केवलियोंका शरीर आहारकशरीर और देवनारकियोंका शरीर बादर निगोदिया जीवोंसे अप्रतिष्ठित है। शेष वनस्पतिकायके जीवोंका शरीर तथा द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, पंचेन्द्रिय तिर्यच और मनुष्योंका शरीर निगोदिया जीवोंसे प्रतिष्ठित है।

Trans. 200. The bodies of earth quadrates (earth, water, fire, air), of an omniscient being, (of a saint) in Āhāraka (assimilative) emanation and (those) of celestials and hellish beings, do not support Nigoda bodies (Host souls.) The rest are with host souled-bodies.

मसुरंबुबिंदुसूई कलावधयसण्णिहो हवे देहो ।

पुढवीआदिचउण्हं तरुतसकाया अण्येविहा ॥२०१॥

अर्थ- मसूर (अन्न विशेष), जलकी बिन्दु, सुइयोंका समूह, ध्वजा, इनके सदृश क्रमसे पृथिवी, अप, तेज, वायुकायिक जीवोंका शरीर होता है और वनस्पति तथा त्रसोंका शरीर अनेक प्रकारका होता है।

Trans. 201. The bodily figures of the earth quadrates (i.e. earth, water, fire, and air) are, (respectively speaking), (circular) like Masūra grain, (round like) a drop of water, (cylindrical like) a bundle of needles, (and oblong like) a flag. The bodies of vegetables and mobile souls are of various sorts.

जह भारवहो पुरिसो वहइ भरं गेहिऊण कावलियं ।

एमेव वहइ जीवो कम्मभरं कायकावलियं ॥२०२॥

अर्थ- जिस प्रकार कोई भारवाही पुरुष कावटिकाके द्वारा भारका वहन करता है, उसी प्रकार यह जीव कायरूपी कावटिकाके द्वारा कर्मभारका वहन करता है।

Trans. 202. As a burden carrying man carries the burden taking (it) up on his shoulder-pannier, similarly the soul carries the burden of Karmas in the pannier of (his) body.

जह कंचणमग्गियं मुंचइ किट्ठेण कालियाए य ।

तह कायबंधमुक्का अकाइया झाणजोगेण ॥२०३॥

अर्थ- जिस प्रकार मलिन भी सुवर्ण अग्निके द्वारा सुसंस्कृत होकर बाह्य और अभ्यन्तर दोनों ही प्रकारके मलसे रहित हो जाता है उसी प्रकार ध्यानके द्वारा यह जीव भी शरीर और कर्मबन्ध दोनोंसे रहित होकर सिद्ध हो जाता है।

Trans. 203. As gold passed through fire is freed from dirt and impurity, so (the embodied souls) by means of concentration (on the self being freed from the body and bondage of Karma (become) bodyless (Akāyika Aśārīra Siddha or liberated).

आउट्ठरासिवारं लोगे अण्णोण्णसंगुणे तेऊ ।

भूजलवाऊ अहिया पडिभागोऽसंखलोगो दु ॥२०४॥

अर्थ- शलाकात्रयनिष्ठापन्नकी विधिसे लोकका साढ़े तीनवार परस्पर गुणा करनेसे तेजस्कायिक जीवोंका प्रमाण निकलता है। पृथिवी, जल, वायुकायिक जीवोंका उत्तरोत्तर तेजस्कायिक जीवोंकी अपेक्षा अधिक-अधिक प्रमाण है। इस अधिकताके प्रतिभागहारका प्रमाण असंख्यात लोक है।

Trans. 204. The spatial units of the universe being treated $3\frac{1}{2}$ times by 3 fold dispositions in the Śalākā method (is the number of) fire (bodied souls), and taking the innumerable units of universe as the common divisor (Pratibhāga), (we get) the number of earth, water and air bodied souls by adding (the quotient as in Gāthā 178-9).

अपदिष्टिद पत्तेया असंखलोगप्पमाणया होति ।
तत्तो पदिष्टिदा पुण असंखलोगेण संगुणिदा ॥२०५॥

अर्थ- अप्रतिष्ठित प्रत्येक वनस्पतिकायिक जीव असंख्यात लोकप्रमाण हैं, और इससे भी असंख्यात लोकगुणा प्रतिष्ठितप्रत्येक वनस्पतिकायिक जीवोंका प्रमाण है।

Trans. 205. The number of non-host individual vegetables (Apratiṣṭhita Pratyeka) is innumerable times the spatial units of the universe. And the number of host individual vegetables (Sapratīṣṭhita Pratyeka) is the innumerable times the spatial units of universe multiplied by that (i.e. the number of non-host individual vegetables).

तसरासिपुढविआदी चउक्कपत्तेयहीण संसारी ।
साहारण जीवाणं परिमाणं होदि जिणदिट्ठं ॥२०६॥

अर्थ- सम्पूर्ण संसारी जीवराशिमेंसे त्रस राशिका प्रमाण और पृथिव्यादि चतुष्क (पृथिवी, अप, तेज, वायु) तथा प्रत्येक वनस्पतिकायिका प्रमाण जो कि ऊपर बताया गया है घटानेपर जो शेष रहे उतना ही साधारण जीवोंका प्रमाण है, ऐसा जिनेन्द्रदेवने कहा है।

Trans. 206. (All) mundane souls minus the mobile group, 4 earth etc. (earth, water, fire, and air bodied souls), and the individual (Pratyeka-vegetables) is the number of common souls (i.e. Sādhāraṇa or Nigoda vegetables). The Conqueror has said (so).

सगसग असंखभागे बादरकायाण होदि परिमाणं ।
सेसा सुहमपमाणं पडिभागो पुव्वणिदिट्ठो ॥२०७॥

अर्थ- अपनी-अपनी राशिका असंख्यातवाँ भाग बादरकायिक जीवोंका प्रमाण है और शेष बहुभाग सूक्ष्म जीवोंका प्रमाण है। इसके प्रतिभागहारका प्रमाण पूर्वोक्त असंख्यात लोक प्रमाण है।

Trans. 207. The innumerable part of their respective groups is the number of gross-bodied souls (in the groups of earth, water, fire, air and Nigoda bodied souls.)

The remainder (in each group, is) the number of fine bodied souls (in that group.) The common divisor (Pratibhāga) is as said above (i.e. innumerable times the spatial units of universe).

सुहुमेसु संखभागं संखा भागा अपुण्णगा इदरा ।
जस्सि अपुण्णद्धादो पुण्णद्धा संखगुणिदकमा ॥२०८॥

अर्थ- सूक्ष्म जीवोंमें अपनी-अपनी राशिके संख्यात भागोंमेंसे एक भाग प्रमाण अपर्याप्तक और बहुभागप्रमाण पर्याप्तक है। कारण यह है कि अपर्याप्तकके कालसे पर्याप्तकका काल संख्यात गुणा है।

Trans. 208. (The total number of) fine souls divided by numerable (gives the number of) undevelopables, and the numerable (remaining) parts (is the number of the developables. Because the time (average age) of the developables is the numerable times of that of the non-developables.

पल्लासंखेज्जवहिद पदरंगुलभाजिदे जगप्पदरे ।
जलभूणिपबादरया पुण्णा आवलिअसंखभजिदकमा ॥२०९॥

अर्थ- पल्यके असंख्यातवें भागसे भक्त प्रतरांगुलका जगत्प्रतरमें भाग देनेसे जो लब्ध आवे उतना बादर पर्याप्त जलकायिक जीवोंका प्रमाण है। इसमें आवलिके असंख्यातवें भागका भाग देनेसे जो लब्ध रहे उतना बादर पर्याप्त पृथिवीकायिक जीवोंका प्रमाण है इसमें भी आवलिके असंख्यातवें भागका भाग देनेसे जो लब्ध रहे उतना सप्रतिष्ठित प्रत्येक पर्याप्त जीवराशिका प्रमाण होता है। पूर्वकी तरह इसमें भी आवलिके असंख्यातवें भागका भाग देनेसे जो लब्ध रहे उतना अप्रतिष्ठित प्रत्येक पर्याप्त जीवराशिका प्रमाण होता है।

Trans. 209. The basic area of the universe (Jagat Pratara = 49 Sq. Rājus), divided by (the quotient of) square big finger (Pratarāṅgula), divided by an innumerable part of a Palya (is the number of) developable gross water (bodied souls.) This successively divided by an innumerable part of an Āvalī (is the number of developable gross) earth-(bodied souls); (This divided by an innumerable part of an Āvalī is the number of developable gross) host individuals (Apratiṣṭhita Pratyeka).

विंदावलिलोगाणमसंखं संखं च तेउवाऊणं ।

पज्जत्ताण पमाणं तेहिं विहीणा अपज्जत्ता ॥२१०॥

अर्थ- घनावलिके असंख्यात भागोंमेंसे एक भाग प्रमाण बादर पर्याप्त तेजस्कायिक जीवोंका प्रमाण है और लोकके संख्यातभागोंमेंसे एक भाग प्रमाण बादर पर्याप्त वायुकायिक जीवोंका प्रमाण है। अपनी-अपनी सम्पूर्ण राशिमेंसे पर्याप्तकोंका प्रमाण घटानेपर जो शेष रहे वही अपर्याप्तकोंका प्रमाण है।

Trans. 210. One innumerable (part of the cube of the instants of an) (Āvalī is the) number of developable fire (souls) (and one) numerable (part of the spatial units of) universe (is the number of developable) air (souls). (Their totals) minus this (is the number of their undevelopables).

साहरणबादरेसु असंखं भागं असंखगा भागा ।

पुण्णाणमपुण्णाणं परिमाणं होदि अणुकमसो ॥२११॥

अर्थ- साधारण बादर वनस्पतिकायिक जीवोंका जो प्रमाण बताया है उसके असंख्यात भागोंमेंसे एक भाग प्रमाण पर्याप्त और बहुभागप्रमाण अपर्याप्त हैं।

Trans. 211. Of the innumerable parts of gross common (sādhāraṇa) souls one part and the many innumerable parts are the number of developables and undevelopables respectively.

आवलिअसंखसंखेणवहिद पदरंगुलेण हिदपदरं ।

कमसो तसतप्पुण्णा पुण्णतसा अपुण्णा हु ॥२१२॥

अर्थ- आवलीके असंख्यातवें भागसे भक्त प्रतरांगुलका भाग जगत्प्रतरमें देनेसे जो लब्ध आवे उतना ही सामान्य त्रसराशिका प्रमाण है और संख्यातसे भक्त प्रतरांगुलका भाग जगत्प्रतरमें देनेसे जो लब्ध आवे उतना पर्याप्त त्रसजीवोंका प्रमाण है। सामान्य त्रसराशिमेंसे पर्याप्तकोंका प्रमाण घटानेपर शेष अपर्याप्त त्रसों का प्रमाण निकलता है।

Trans. 212. The universal line square (Jagat Pratara) divided by the (quotients of) a finger square divided by the innumerable and numerable parts of a wink (Āvalī) (respectively), gives us the number of all mobiles and their developable, respectively. The mobiles minus their developables are their non-developables.

आवलिअसंखभागेण वहिदपल्लूणसायरद्ध छिदा ।

बादरतेपणि भूजल वादाणं चरिम सायरं पुण्णं ॥२१३॥

अर्थ- आवलिके असंख्यातवें भागसे भक्त पल्यको सागरमेंसे घटानेपर जो शेष रहे उतने बादर तेजस्कायिक जीवोंके अर्द्धच्छेद हैं और अप्रतिष्ठित प्रत्येक, प्रतिष्ठित प्रत्येक, बादर पृथिवीकायिक, बादर जलकायिक जीवोंके अर्द्धच्छेदोंका प्रमाण क्रमसे आवलिके असंख्यातवें भागका दो बार, तीनवार, चार बार, पाँच बार, पल्यमें भाग देनेसे जो लब्ध आवे उसको सागरमें घटानेसे निकलता है और बादर वातकायिक जीवोंके अर्द्धच्छेदोंका प्रमाण पूर्ण सागर प्रमाण है।

Trans. 213. (The quotient of) the Palya divided by innumerable parts of an Āvalī subtracted (once, twice, thrice, 4th and 5th times from a Sāgarā is the number of Ardhachchedas (successive divisions by 2) respectively, of gross fire, non-host individuals, host individuals, earth, and water (souls) and (the number of) Ardhachhedas of gross air (souls) (is) the last, i. e. full Sāgar.

ते वि विसेसेणहिया पललासंखेज्जभागमेत्तेण ।

तद्वा ते रासीओ असंखलोगेण गुणिकमा ॥२१४॥

अर्थ- ये प्रत्येक अर्द्धच्छेद राशि पल्यके असंख्यातवें-असंख्यातवें भाग उत्तरोत्तर अधिक हैं इसलिये ये सभी राशि (तेजस्कायिकादि जीवोंके प्रमाण) क्रमसे उत्तरोत्तर असंख्यात लोकगुणी हैं।

Trans. 214. Even those (i. e.) the number of the above six Ardhachhedas (beginning from the fire-bodied beings) (are), (as among themselves) successively greater by an innumerable part of a Palya.

Thus, those numbers (of the souls of the above six kinds are) greater than the next preceding ones by innumerable fold spatial units of the universe (i. e. the number of non-host-individual souled beings is the number of gross fire-bodied beings multiplied by innumerable times the innumerable, spatial units of the universe.)

दिण्णच्छेदेणवहिद इट्ठच्छेदेहिं पयदविरलणं भजिदे ।

लब्धमिदइट्ठरासीणण्णोण्हदीए होदि पयदघणं ॥२१५॥

अर्थ- देयराशिके अर्द्धच्छेदोंसे भक्त इष्ट राशिके अर्द्धच्छेदोंका प्रकृत विरलन राशिमें भाग देनेसे जो लब्ध आवे उतनी जगह इष्ट राशिको रखकर परस्पर गुणा करनेसे प्रकृत धन होता है।

Trans. 215. Divide the Halvings of result of data, by the Halvings of the given figure is data. This will give the index number of data. Divide the index of the 'desired' by the index of the data, write the result of the data as many times as there are units in the alst quotient, and multiply them all into each other. This is the desired result.

पुगलविवाइदेहोदयेण मणवयणकाय जुत्तस्स ।

जीवस्स जा हु सत्ती कम्मागमकारणं जोगो ॥२१६॥

अर्थ- पुदगलविपाकी शरीरनामकर्मके उदयसे मन वचन कायसे युक्त जीवकी जो कर्मोंके ग्रहण करनेमें कारणभूत शक्ति है उसको योग कहते हैं।

Trans. 216. By the operation of the matter-maturing body (sub-class of the body making Karma) in the soul with mind, speech or body, that very capacity which is the cause of in-coming of the Karmas is vibration-(Yoga or vibratory activity of the souls).

मणवयणाण पउत्ती सच्चासच्चुभयअणुभयत्येसु ।

तण्णामं होदि तदा तेहि दु जोगा हु तज्जोगा ॥२१७॥

अर्थ- सत्य, असत्य, उभय, अनुभय इन चार प्रकारके पदार्थोंसे जिस पदार्थको जानने या कहने के लिए जीव के मन, वचनकी प्रवृत्ति होती है उस समयमें मन और वचनका वही नाम होता है और उसके सम्बन्धसे उस प्रवृत्तिका भी वही नाम होता है।

Trans. 217. The tendencies of mind and speech are towards matter (which may be) truth, false, both or neither. These vibrations then take their names according to the matter (resulting) from them.

सब्भावमणो सच्चो जो जोगो तेण सच्चमणजोगो ।

तच्चिवरीओ मोसो जाणुभयं सच्चमोसो ति ॥२१८॥

अर्थ- समीचीन भावमनको (पदार्थको जाननेकी शक्तिरूप ज्ञानको) अर्थात् समीचीन पदार्थको विषय करने वाले मनको सत्य मन कहते हैं और उसके द्वारा जो योग होता है उसको सत्य-मनोयोग कहते हैं। सत्य से जो विपरीत है उसको मिथ्या कहते हैं तथा सत्य और मिथ्या दोनों ही प्रकारके मनको उभय मन कहते हैं ऐसा हे भव्य तू जान।

Trans. 218. The true vibration of mind towards right subjects in true-mind vibration. The reverse of it is false (mind vibration). Know that to be mixed which is a combination of True and False.

ण य सच्चमोसजुत्तो जो दु मणो सो असच्चमोसमणो ।

जो जोगो तेण हवे असच्चमोसो दु मणजोगो ॥२१६॥

अर्थ- जो न तो सत्य हो और न मृषा हो उसको असत्यमृषा मन कहते हैं। अर्थात् अनुभय रूपपदार्थके जाननेकी शक्तिरूप जो भावमन है उसको असत्यमृषा कहते हैं और उसके द्वारा जो योग होता है उसको असत्यमृषा मनोयोग कहते हैं।

Trans. 219. Mind inclined towards what is neither true nor false, is (neutral) mind. The vibration caused thereby is neither-true-nor-false (neutral) mind vibration.

दसविहसच्चे वयणे जो जोगो सो दु सच्चवचिजोगो ।

तत्त्विवरीओ मोसो जाणुभयं सच्चमोसो ति ॥२२०॥

अर्थ- वक्ष्यमाण जनपद आदि दश प्रकारके सत्य अर्थके वाचक वचनको सत्यवचन और उससे होने वाले योग-प्रयत्नविशेषको सत्यवचन योग कहते हैं तथा इससे जो विपरीत है उसको मृषा और जो कुछ सत्य और कुछ सत्य और कुछ मृषाका वाचक है उसको उभयवचनयोग कहते हैं ऐसा हे भव्य तू समझ।

Trans. 220. The vibration connected with the ten kinds of truth, is the true speech vibration. The reverse of it is false (speech vibration), and know truth and falsehood (mixed) to be mixed (speech vibration).

जो णेव सच्चमोसो सो जाण असच्चमोसवचिजोगो ।

अमणाणं जा भासा सण्णीणामंतणी आदी ॥२२१॥

अर्थ- जो न सत्यरूप हो और न मृषारूप ही हो उसको अनुभय वचनयोग कहते हैं। असंज्ञियोंकी समस्त भाषा और संज्ञियोंकी आमन्त्रणी आदिक भाषा अनुभय भाषा कही जाती है।

Trans. 221. The speech that is neither-true-nor-false, know it to be neither-true-nor-false (a neutral) speech vibration speech of irrational beings (from two sensed to five sensed), and the invocative and other sorts of speech of rational beings, (are instances of this kind of speech).

जणवदसम्मदिठवणा णामे रुबे पडुच्चववहारे ।

सम्भावणे य भावे उवमाए दसविहं सच्चं ॥२२२॥

अर्थ- जनपदसत्य, सम्मतिसत्य, स्थापनासत्य, नामसत्य, रूपसत्य, प्रतीत्यसत्य, व्यवहारसत्य, संभावनासत्य, भावसत्य, उपमासत्य, इस प्रकार सत्यके दश भेद हैं।

Trans. 222. Truth is of ten kinds 1. Popular (Janapada), 2. Idiomatic (accepted by consent Sammati), 3. Representative (Sthāpana), 4. Nominal (Nāmnī), 5. Figurative (Rūpa), 6. Relative (Pratitya), 7. Practical (Vyavahāra), 8. Possible (Sambhāvanā), 9. Scriptural (Bhāva), 10. Illustrative (Upamā).

भत्तं देवी चंदप्पह पडिमा तह य होदि जिणदत्तो ।

सेदो दिग्घो रज्झदि कूरो ति थ जं हवे वयणं ॥२२३॥

सक्को जंबूदीवं पल्लट्टदि पाववज्जवयणं च ।

पल्लोवमं च कमसो जणवदसच्चादि दिट्ठंता ॥२२४॥

अर्थ- उक्त दश प्रकारके सत्यवचनके ये दश दृष्टांत हैं। भक्त, देवी, चन्द्रप्रभ प्रतिमा, जिनदत्त, श्वेत, दीर्घ, भात पकाया जाता है, शक्र जम्बूद्वीपको पलट सकता है, पाप रहित 'यह प्रासुक है' ऐसा वचन और पल्योपम।

Trans. 223-224. (The word) Bhattam, cooked rice, Devi, Image of Chandra-Prabhu, Jinadatta, white, long, Kūra (rice) is being cooked, expressions like these as also like, 'Indra can over turn Jambūdvīpa, injunctions against sinful acts and 'Palyopama' equal to Palya are respectively illustrations of popular and other truths.

आमंतणि आणवणी याचणियापुच्छणी य पुण्णवणी ।
 पच्चक्खाणी संसयवयणी इच्छाणुलोमा य ॥२२५॥
 णवमी अणक्खरगदा असच्चमोसा हवन्ति भासाओ ।
 सोदाराणं जम्हा वत्तावत्तं ससंजणया ॥२२६॥

अर्थ- आमन्त्रणी, आज्ञापनी, याचनी, आपृच्छनी, प्रज्ञापनी, प्रत्याख्यानी, संशयवचनी, इच्छानुलोम्नी, अनक्षरगता ये नव प्रकारकी अनुभयात्मक भाषाएँ हैं, क्योंकि इनके सुनने वालेको व्यक्त और अव्यक्त दोनों ही अंशोंका ज्ञान होता है।

Trans. 225-226. 1. Invocative (Āmantraṇī), 2. Dictatory, (Ājñāpanī), 3. Requestive, (Yācanī), 4. Interrogatory (Āpṛcchānī), 5. Informatory (Prajñāpanī), 6. Renunciative (Pratyākhyānī) 7. Doubtful (Saṁśaya Vacanī) and 8. submissive (Icchanulomnī), and the ninth unlettered (Anakṣaragata) are phrases neither-true-nor-false (i.e., neutral); because they are part expressed and part unexpressed to the hearers (in their hearing).

मणवयणाणं मूलणिमित्तं खलु पुण्णदेह उदओ दु ।
 मोसुभयाणं मूलणिमित्तं खलु होदि आवरणं ॥२२७॥

अर्थ- सत्य और अनुभय मनोयोग तथा वचनयोगका मूल कारण पर्याप्ति और शरीर नामकर्मका उदय है। मृषा और उभय मनोयोग तथा वचनयोगका मूल कारण अपना-अपना आवरण कर्म है।

Trans. 227. The root cause of (true and neutral) (mind and speech verily) is the operation of developable and body-making Karmas. And the root cause of false and mixed (mind and speech) is the obscuring (i.e. knowledge obscuring Karma).

मणसहियाणं वयणं दिट्ठं तप्पुव्वमिदि सजोगम्मि ।
 उत्तो मणोवयारेणिंदिय णाणेण हीणहि ॥२२८॥

अर्थ- अस्मदादिक छद्मस्थ मनसहित जीवोंके वचनप्रयोग मनपूर्वक ही होता है। इसलिये इन्द्रियज्ञानसे रहित सयोगकेवलीके भी उपचारसे मन कहा है।

Trans. 228. In the rational beings, speech is seen to be preceded by mind (activity). But as regards a vibrating omniscient soul, (who is) above sensitive knowledge mind has been attributed by assumption.

अंगोवंगुदयादो दव्वमण्डं जिणिंदचंदहि ।
 मणवग्गणखंधाणं आगमणादो दु मणजोगो ॥२२९॥

अर्थ- आंगोपांग नामकर्मके उदयसे हृदयस्थानमें जीवोंके द्रव्यमनकी विकसित-खिले हुए अष्ट दल पद्मके आकारमें रचना हुआ करती है। यह रचना जिन मनोवर्गणाओंके द्वारा हुआ करती है उनका अर्थात् इस द्रव्यमनकी कारणभूत मनोवर्गणाओंका श्री जिनेन्द्रचन्द्र भगवान् सयोगकेवलीके भी आगमन हुआ करता है, इसलिये उनके उपचारसे मनोयोग कहा है।

Trans. 229. In (the vibratory omniscient), supreme among Conquerors, (effulgent like) the moon, (there is the 8 petalled) material mind (organ) by the operation of the limb-and-minor-limb (āṅgopāṅga) sub-class of body making Karma; and mind vibration (is predicated of him) by the in-coming (into it) of molecules of mind matter (mano-vargaṇā).

पुरुमहदुदारुरालं एयद्धो संविजाण तद्धि भवं ।

ओरालियं तमुच्चइ ओरालियकायजोगो सो ॥२३०॥

अर्थ- पुरु, महत्, उदार, उराल, ये सब शब्द एक ही स्थूल अर्थके वाचक हैं। उदारमें जो होय उसको कहते हैं औदारिक। तथा औदारिक-उदारमें होने वाला जो काययोग उसको कहते हैं औदारिक काययोग। यह निरुक्त्यर्थ है, ऐसा समझना चाहिये।

Trans. 230. Know that the words Puru, Mahat, Udāra, Urāla all have the one sense (of grossness), and (a body) appertaining thereto is called Āudārika, Physical; and the vibration caused through this body is the Physical-body-vibration (Āudārika kāya yoga).

ओरालियं उत्तत्थं विजाण मिस्सं तु अपरिपुण्णं तं ।

जो तेण संपजोगो ओरालिय मिस्सजोगो सो ॥२३१॥

अर्थ- हे भव्य! ऐसा समझ कि जिस औदारिक शरीरका स्वरूप पहले बता चुके हैं वही शरीर जब तक पूर्ण नहीं हो जाता तब तक मिश्र कहा जाता है और उसके द्वारा होने वाले योगको औदारिक मिश्रकाय योग कहते हैं।

Trans. 231. Know the aforesaid physical body (Āurālika or Audārika) when (it is) in combination (with the Karmic body) to be non-developable

The vibration caused through such connection is physical mixed vibration (Audārika miśra yoga).

विविहगुणइद्धिजुत्तं विक्किरियं वाहु होदि वेगुव्वं ।

तिस्से भवं च णेयं वेगुव्वियकायजोगो सो ॥२३२॥

अर्थ- नाना प्रकारके गुण और ऋद्धियोंसे, युक्त देव तथा नारकियोंके शरीरको वैक्रियक अथवा विगूर्व कहते हैं और इसके द्वारा होने वाले योगको वैगूर्विक अथवा वैक्रियक काययोग कहते हैं।

Trans. 232. That which is (endowed) with various qualities and excellences is Vikriyā, or Vigūrva; and (a body) appertaining thereto should be known (to be fluid body, Vaikriyika Śārīra), and (the vibration) caused through (this body is) the fluid-body-vibration (Vaikriyika Kāya Yoga).

बादरतेऊवाऊ पंचदियपुण्णगा विगुव्वंति ।

ओरालियं सरीरं विगुव्वण्णं हवे जेसिं ॥२३३॥

अर्थ- बादर तेजस्कायिक और वायुकायिक तथा संज्ञी पर्याप्त पंचेन्द्रिय तिर्यच एवं मनुष्य तथा भोगभूमिज तिर्यक् मनुष्य भी अपने औदारिक शरीरके द्वारा जिनके कि शरीरमें यह योग्यता पाई जाती है विक्रिया किया करते हैं।

Trans. 233. Gross fire (and) air (souls), and 5-sensed (rational developable (souls) can change the form of (bodies); therefore their physical body may be said to be (som-times) transformable (like fluid).

वेगुव्विय उत्तत्थं विजाण मिस्सं तु अपरिपुण्णं तं ।

जो तेण संपजोगो वेगुव्विय मिस्सजोगो सो ॥२३४॥

अर्थ- वैगूर्विकका अर्थ बताया जा चुका है। जब तक वह वैक्रियक शरीर पूर्ण नहीं होता तब तक उसको वैक्रियक मिश्र कहते हैं और उसके द्वारा होने वाली योगको आत्मप्रदेश परिस्पन्दनको वैक्रियक मिश्र काययोग कहते हैं।

Trans. 234. Know the aforesaid fluid body (Vaigūrvika or Vaikriyika) when mixed (with the Karmic body), to be non-deveopable. The vibration caused through its connection is Fluid-mixed-vibration (Vaikriyika miśra Yoga).

आहारस्सुदयेण य पमत्त विरदस्स होदि आहारं ।
 असंजम परिहरणद्धं संदेहविणासणद्धं च ॥२३५॥
 णियखेत्ते केवलिदुगविरहे णिक्कमण पडुदि कल्लाणे ।
 परखेत्ते संवित्ते जिणजिणघरवंदणद्धं च ॥२३६॥

अर्थ- असंयमका परिहार करनेके लिए तथा संदेहको दूर करनेके लिए आहारक ऋद्धिके धारक छेदे गुणस्थानवर्ती मुनिके आहारक शरीर नामकर्मके उदयसे आहारक शरीर होता है।

अपने क्षेत्रमें केवली तथा श्रुतकेवलीका अभाव होने पर किन्तु दूसरे क्षेत्रमें जहाँ पर कि औदारिक शरीरसे उस समय पहुँचा नहीं जा सकता केवली या श्रुतकेवलीके विद्यमान रहने पर अथवा तीर्थकरोके दीक्षा कल्याण आदि तीन कल्याणकोमेंसे किसीके होने पर तथा जिन, जिनगृह, चैत्य, चैत्यालयोंकी वन्दनाके लिए भी आहारक ऋद्धि वाले छेदे गुणस्थानवर्ती प्रमत्त मुनिके आहारक शरीर नामकर्मके उदयसे यह शरीर उत्पन्न हुआ करता है।

Trans. 235-236. Through the operation of Assimilative body-making karma the assimilative body is produced (in the saint in the sixth statge) of imperfect vows, for the sake of removing non-control, and for the destruction of boubts, and also for paying obeisance to the Conquerors (Jina), when there is an absence of both the òmniscients (and saints) possessing full scriptural knowledge in his places (where he can go); and also for holy celebrations, (Kalyāṇa), Renunciation and others happening in other regions (beyond his reach).

उत्तमअंगम्हि हवे धादुविहीणं सुहं असंहणणं ।
 सुहसंठाणं धवलं हत्थपमाणं पसत्थुदयं ॥२३७॥

अर्थ- यह आहारक शरीर रसादिक धातु और संहननोंसे रहित तथा समचतुरस्र संस्थानसे युक्त एवं चन्द्रकांत मणिके समान श्वेत, और शुभनामकर्मके उदयसे शुभ अवयवों युक्त हुआ करता है। यह एक हस्तप्रमाण वाला और आहारक शरीर आदि प्रशस्त नामकर्मोंके उदयसे उत्तमांग-शिरमेंसे उत्पन्न हुआ करता है।

Trans. 237. By the operation of the meritorious (sub-classes of the body-making Karma), (it) rises from the highest part of the body (i.e. skull of the Saint), free from physiological matter (blood etc.), auspicious, without osseous structure, of perfect proportion, white, (and) one cubit (hātha = 24 āṅgula) in length.

अव्वाघादी अंतोमुहुत्तकालट्ठिदी जहण्णिदरे ।
 पज्जत्तीसंपुण्णे मरणं पि कदाचि संभवई ॥२३८॥

अर्थ- यह आहारक शरीर दोनों ही तरफसे व्याघात रहित है। न तो इस शरीरके द्वारा किसी भी अन्य पदार्थका व्याघात होता है और न किसी दूसरे पदार्थके द्वारा इस आहारक शरीरका ही व्याघात हुआ करता है, क्योंकि इसमें यह सामर्थ्य है- यह इतना सूक्ष्म हुआ करता है कि वज्रपटलको भी भेदकर जा सकता है। इसकी जघन्य और उत्कृष्ट दोनों ही प्रकारकी स्थिति अन्तर्मुहुर्त प्रमाण ही है। आहारक शरीर पर्याप्तिके पूर्ण होने पर कदाचित् आहारक ऋद्धिवाले मुनिका मरण भी हो सकता है।

Trans. 238. By the operation of the meritorious (sub-classes of the body-making Karma), (it) rises from the highest part of the body (i.e. skull of the Saint), free from physiological matter (blood etc.), auspicious, without osseous structure, of perfect proportion, white, (and) one cubit (hātha = 24 āṅgula) in length.

आहरदि अणेण मुणी सुहमे अत्थे सयस्स संदेहे ।

गत्ता केवलिपासं तम्हा आहारगो जोगो ॥२३६॥

अर्थ- छट्टे गुणस्थानवर्ती मुनि अपनेको संदेह होनेपर इस शरीरके द्वारा केवलीके पासमें जाकर सूक्ष्म पदार्थोंका ग्रहण करता है। इसलिये इस शरीरके द्वारा होने वाले योगको आहारक काययोग कहते हैं।

Trans. 239. Through this the saint having doubt in himself, going near an Omniscient (or a knower of all the scriptures) assimilates or comprehends (Āharati) fine matters (i.e. the points on which he was in doubt), therefore (this) vibration (is called) Āhāraka (Assimilative vibration or Āhāraka yoga).

आहारयमुत्तत्थं विजाण मिस्सं तु अपरिपुण्णं तं ।

जो तेण संपजोगो आहारय मिस्सजोगो सो ॥२४०॥

अर्थ- आहारक शरीरका अर्थ ऊपर बताया जा चुका है। जब तक वह पर्याप्त नहीं होता तब तक उसको आहारकमिश्र कहते हैं और उसके द्वारा होने वाले योगको आहारकमिश्र योग कहते हैं।

Trans. 240. Know the above mentioned Āhāraka (assimilative body) to be mixed (i.e. Āhāraka with the physical body) till it is non-developable (aparyāpta). The (Vibration) caused through it is assimilative-mixed-vibration (Āhāraka Miśra Yoga).

कम्मेव य कम्मभवं कम्मइयं जो दु तेण संजोगो ।

कम्मइयकाय जोगो इगिविगतिग समयकालेसु ॥२४१॥

अर्थ- ज्ञानावरणादिक अष्ट कर्मोंके समूहको अथवा कर्मण शरीर नामकर्मके उदयसे होने वाली कायको कर्मणकाय कहते हैं और उसके द्वारा होने वाले योग-कर्माकर्षण शक्तियुक्त आत्मप्रदेशोंके परिस्पन्दनको कर्मणकाय योग कहते हैं। यह योग एक दो अथवा तीन समय तक होता है।

Trans. 241. Kārmaṇa (body) is Karma (bondage of 8 kinds) itself, or that produced (by operation or Kārmaṇa body-making) Karma. Vibration caused by it is Karmic-body vibration. (Kārmaṇa kāya Yoga). It lasts for one, two, or three instants, (during transmigratory passage).

वेगुव्विय आहारयकिरिया ण समं पमत्तविरदम्हि ।

जोगो वि एक्ककाले एक्केव य होदि णियमेण ॥२४२॥

अर्थ- छट्टे गुणस्थानमें वैक्रियक और आहारक शरीरकी क्रिया युगपत् नहीं होती और योग भी नियमसे एक कालमें एक ही होता है।

Trans. 242. The activities of fluid and assimilative bodies (are) not simultaneous in (the saint in the stage or) imperfect vows, and also of necessity at one time there is only one kind of vibration (out of the 15 kinds) in any mundane being at any time.

जेसिं ण संति जोगा सुहासुहा पुण्णपावसंजणया ।

ते होंति अजोगिजिणा अणोवमाणंतबलकलिया ॥२४३॥

अर्थ- जिनके पुण्य और पापके कारणभूत शुभाशुभ योग नहीं हैं उनको अयोगिजिन कहते हैं। वे अनुपम और अनन्त बल करके युक्त होते हैं।

Trans. 243. Those in whom there are no merit or demerit, producing good or bad vibrations, are the non-vibratory Conquerors (Ayogī Jina) possessed of unparalleled and infinite power.

ओरालियवेगुव्विय आहारयतेजणामकम्मदये ।

चउणोकम्मसरीरा कम्मेव य होदि कम्मइयं ॥२४४॥

अर्थ- औदारिक, वैक्रियक, आहारक, तैजस नामकर्मके उदयसे होने वाले चार शरीरोंको नोकर्म कहते हैं और कर्मण शरीर नामकर्मके उदयसे होने वाले ज्ञानावरणादिक आठ कर्मोंके समूहको कर्मण शरीर कहते हैं।

Trans. 244. The four bodies produced by the operation of the physical, fluid, assimilative and electric (Taijasa) body sub-classes of the body-making karma, are no-karma or quasi-karma, and the karmic (body produced by the operation of karmic body-sub-class of body-making karma) is the karma proper (i.e. the intervowen texture of the matter of the eight kinds of karmas.)

परमाणूहि अणंतेहि वग्गणसण्णा हु होदि एका हु ।

ताहि अणंताहि णियमा समयपबद्धो हवे एको ॥२४५॥

अर्थ- अनन्त (अनन्तानन्त) परमाणुओंकी एक वर्गणा होती है और अनन्त वर्गणाओंका नियमसे एक समयप्रबद्ध होता है।

Trans. 245. Vargaṇā is the name of a molecule of infinite atoms. And a unit of bondage (samaya prabaddha) is necessarily formed of such infinite (molecules).

ताणं समयपबद्धा सेट्ठिअसंखेज्जभागगुणिदकमा ।

णंतेण य तेजदुगा परं परं होदि सुहुमं खु ॥२४६॥

अर्थ- औदारिक, वैक्रियक, आहारक इन तीन शरीरोंके समयप्रबद्ध उत्तरोत्तरक्रमसे श्रेणिके असंख्यातवें भागसे गुणित हैं और तेजस तथा कार्मण शरीरके समयप्रबद्ध अनन्तगुणे हैं किन्तु ये पाँचों ही शरीर उत्तरोत्तर सूक्ष्म हैं।

Trans. 246. The units of bondage (Samaya Prabaddha) of these (i.e. fluid and assimilative bodies) are as many times (those of physical and fluid bodies,) respectively, as an innumerable part of the base of the universe (jagat śreṇi) And those of the electric duet (Taijasa and karmic bodies,) are infinite (times of that of the assimilative, and electric bodies, respectively). And (each of the five bodies certainly advances in fineness (i.e. is finer, than its predecessor.)

ओगाहिणाणि ताणं समयपबद्धाण वग्गणाणं च ।

अंगुलअसंखभागा उवरुवरिमसंखगुणहीणा ॥२४७॥

अर्थ- इन शरीरोंके समयप्रबद्ध और वर्गणाओंकी अवगाहनाका प्रमाण सामान्यसे घनांगुलके असंख्यातवें भाग है किन्तु विशेषतया आगे आगेके शरीरके समयप्रबद्ध और वर्गणाओंकी अवगाहनाका प्रमाण क्रमसे असंख्यातगुणा-असंख्यातगुणा हीन है।

Trans. 247. The size of the units of bondage, and molecules of these (5 bodies) is an innumerable part of a (cubic) finger (Ghanāṅgula). The later one is, successively innumerable partless (than the one immediately preceding).

तस्समय बद्ध वग्गण ओगाहो सूइअंगुलासंख- ।

भागहिदविंदअंगुलमुवरुवरिं तेण भजिदकमा ॥२४८॥

अर्थ- औदारिकादि शरीरोंके समयप्रबद्ध तथा वर्गणाओंका अवगाहन सूच्यंगुलकके असंख्यातवें भागसे भक्त घनांगुल प्रमाण है और पूर्व-पूर्वकी अपेक्षा आगे-आगेकी अवगाहना क्रमसे असंख्यातगुणी-असंख्यातगुणी हीन है।

Trans. 248. The size of their units of bondage (Samaya Prabaddha) and of the (Vargaṇā) is a cubic finger (Ghanāṅgula divided by an innumerable part of a linear finger, (Sūcyāṅgula.) And on and on, the division successively is to be (by the same, that is the, innumerable part of a linear finger).

जीवादो णंतगुणा पडिपरमाणुहि विस्सोवचया ।

जीवेण य समवेदा एक्केकं पडि समाणा हु ॥२४९॥

अर्थ- पूर्वोक्त कर्म और नोकर्मके प्रत्येक परमाणुपर समान संख्याको लिए हुए जीवराशिसे अनन्तगुणे विस्सोपचयरूप परमाणु जीवके साथ सम्बद्ध हैं।

Trans. 249. With every atom (Paramāṇu of Karmic and quasi-Karmic matter which binds the soul there are) naturally attendant. (Visrasopacaya, atoms of the same kind; and their number is) infinite times the number of souls (liberated and mundane). (The naturally attendant atoms) co-exist with each atom (of karmic and quasi-Karmic matter which binds) the soul.

(Each atom of Karmic and Quasi-Karmic matter) has an equal number of naturally attendant atoms.

उक्कस्सट्ठिदि चरिमे सगसग उक्कस्स संचओ होदि ।

पण देहाणं वरजोगादिससामग्गि सहियाणं ॥२५०॥

अर्थ- उत्कृष्ट योगको आदि लेकर जो जो सामग्री तत्तत् कर्म या नोकर्मके उत्कृष्ट संचयमें कारण है उस-उस सामग्रीके मिलनेपर औदारिकादि पाँचों ही शरीरवालोंके उत्कृष्ट स्थितिके अन्तसमयमें अपने-अपने कर्म और नोकर्मका उत्कृष्ट संचय होता है।

Trans. 250. In the last instant of the maximum duration of the five bodies (there occurs) for each its maximum collection (of the binding atoms of Karmic and quasi-Karmic matter) in (the souls who are with the highest vibration) (Yoga), and other environments necessary to each.

आवासया हु भवअद्धाउस्सं जोगसंकिलेसो य ।

ओकट्टुक्कट्टणगा छच्चेदे गुणिकम्मसे ॥२५१॥

अर्थ- कर्मोंका उत्कृष्ट संचय करनेके लिये प्रवर्तमान जीवके उनका उत्कृष्ट संचय करनेके लिये ये छह आवश्यक कारण होते हैं- भवाद्धा, आयुष्य, योग, संक्लेश, अपकर्षण, उत्कर्षण।

Trans. 251. In (the soul) with the above maximum (accumulation of) atoms, these 6 are certainly necessary, (1) the time of condition of existence (Bhavāddhā), (2) age (Āyusya), (3) vibration (Yoga), (4) Passionate thought activity (Saṅkleśa), (5) decrease of duration, (Apakarṣaṇa), (6) increase of duration (Utkarṣaṇa).

पल्लतियं उवहीणं तेत्तीसंतोमुहुत्त उवहीणं ।

छावट्ठी कम्मट्ठिदि बंधुक्कस्सट्ठिदी ताणं ॥२५२॥

अर्थ- औदारिक शरीरकी उत्कृष्ट स्थिति तीन पल्य, वैक्रियिक शरीरकी तेतीस सागर, आहारक शरीरकी अन्तर्मुहूर्त, तैजस शरीरकी छ्यासठ सागर है। कर्मण शरीरकी उत्कृष्ट स्थिति उतनी ही समझनी चाहिये जितनी कि कर्मोंके स्थिति बंध प्रकरणमें बताई गई है। वह सामान्यतया तो सत्तर कोड़ा-कोड़ी सागर है किन्तु विशेषरूपसे ज्ञानावरण, दर्शनावरण, वेदनीय और अन्तराय कर्मकी उत्कृष्ट स्थिति तीस कोड़ाकोड़ी सागर है। मोहनीयकी सत्तर कोड़ाकोड़ी सागर, नाम, गोत्रकी बीस कोड़ाकोड़ी सागर और आयुर्कर्मकी केवल तेतीस सागर उत्कृष्ट स्थिति है।

Trans. 252. The maximum duration of the bondage of them (the five bodies is respectively) 3 Palyas, 33 Sāgaras, one antara-muhūrta, 66 Sāgaras, and the length of the duration of the particular Karmas, (in the Karmic Body).

अंतोमुहुत्तमेत्तं गुणहाणी होदि आदिमतिगाणं ।

पल्लासंखेज्जदिमं गुणहाणी तेजकम्ममाणं ॥२५३॥

अर्थ- औदारिक, वैक्रियिक और आहारक इन तीन शरीरोंमेंसे प्रत्येककी उत्कृष्ट स्थिति संबंधी गुणहानि तथा गुणहानि आयामका प्रमाण अपने-अपने योग्य अन्तर्मुहूर्त मात्र है और तैजस तथा कर्मण शरीरकी उत्कृष्ट स्थिति सम्बन्धी गुणहानिका प्रमाण यथायोग्य पल्यके असंख्यातवें भागमात्र है।

Trans. 253. Of the first three bodies the Guṇahāni is only an antar-muhūrta. Guṇahāni of the electric and Karmic bodies is an innumerable part of a Palya.

एककं समयप्रबद्धं बंधदि एकं उदेदि चरिमम्भि ।

गुणहाणीण दिवहं समयप्रबद्धं हवे सत्तं ॥२५४॥

अर्थ- प्रतिसमय एक समयप्रबद्धका बंध होता है और एक ही समयप्रबद्धका उदय होता है किन्तु फिर भी अन्तमें कुछ कम डेढ़ गुणहानिगुणित समयप्रबद्धोंकी सत्ता रहती है।

Trans. 254. In each instant only one unit of bondage (Samaya Prabaddha) is bound and comes into operation. In the last (instant of the duration of any unit of bondage) (the number of) existing atoms (Satva) is one and a half times the number of Guṇahānis multiplied by that unit of bondage.

णवरि य दुसरीराणं गलिदवसेसा उमेत्तठिदि बंधो ।

गुणहाणीण दिवहं संचयमुदयं च चरिमहि ॥२५५॥

अर्थ- औदारिक और वैक्रियक शरीरमें यह विशेषता है कि इन दोनों शरीरोंके बध्यमान समयप्रबद्धोंकी स्थिति भुक्त आयुसे अवशिष्ट आयुकी स्थिति प्रमाण हुआ करती है और इनका आयुके अन्त समयमें डेढ़ गुणहानि मात्र उदय तथा संचय रहता है।

Trans. 255. But the duration of the unit of bondage (Samaya Prabaddha), (which is bound to the two bodies physical and fluid, is) the total length of one's age minus its length already exhausted: In the last (instant of life) the number of existing molecules is one and a half times of Guṇahāni and (all of them shed by) operation. (This is necessarily so as in vigraha Gati, the soul cannot have the physical, fluid, or assimilative bodies.)

ओरालियवरसंचं देवुत्तरकुरुवजाद जीवस्स ।

तिरियमणुस्सस्स हवे चरिमदुचरिमे तिपल्लाठिदिगस्स ॥२५६॥

अर्थ- तीन पल्यकी स्थितिवाले देवकुरु तथा उत्तरकुरुमें उत्पन्न होनेवाले तिर्यच और मनुष्योंके चरम तथा द्विचरम समयमें औदारिक शरीरका उत्कृष्ट संचय होता है।

Trans. 256. The maximum (number) of (molecules) of the physical body exist together, in the last, and last but one instant (of the life of) a human and sub-human soul born in Deva Kuru and Uttara Kuru, (the regions of the highest enjoyment, Uttama-Bhogabhūmi; who are) with three Palya (maximum) duration (of life).

वेगुव्वियवरसंचं वावीससमुदआरण दुगहि ।

जह्मा वरजोगस्स य वारा अण्णत्थ ण हि बहुगा ॥२५७॥

अर्थ- वैक्रियिक शरीरका उत्कृष्ट संचय, बाईस सागरकी आयुवाले आरण और अच्युत स्वर्गके ऊपरके विमानोंमें रहने वाले देवोंके ही होता है क्योंकि वैक्रियिक शरीरका उत्कृष्ट योग तथा उसके योग्य दूसरी सामग्रियाँ अन्यत्र अनेक वार नहीं होती।

Trans. 257. The maximum (number) of the (molecules) of the fluid body exist together in (the heavenly beings) in the two, Āraṇa, (Acyuta), (the 15th and 16th heavens in their highest parts, where the maximum age is) 22 Sāgaras; because elsewhere, the highest vibration and (environments), (do) not (occur) so many times.

तेजासरीरजेदं सत्तमचरिमहि विदियवारस्स ।

कम्मस्स वि तत्थेव य णिरये बहुवारभमिदस्स ॥२५८॥

अर्थ- तैजस शरीरका उत्कृष्ट संचय सप्तम पृथिवीमें दूसरी वार उत्पन्न होने वाले जीवके होता है और कर्मण शरीरका उत्कृष्ट संचय अनेक वार नरकोंमें भ्रमण करके सप्तम पृथिवीमें उत्पन्न होने वाले जीवके होता है। आहारक शरीरका उत्कृष्ट संचय आहारक शरीरका उत्थान करने वाले प्रमत्तविरतके ही होता है।

Trans. 258. The maximum (number of existing molecules) for the electric body is in the last instant (of the life of a hellish being) (born) a second time in the 7th (Hell); and for the Karmic body (it is in the last instant of the life of one who is born) in the same hell after wandering many times (in hells). (And for the assimilative body it is in the last instant of the antar-muhūrta of that body).

वादरपुण्णा तेऊ सगरासीए असंखभागमिदा ।
विविकरियसत्तिजुत्ता पल्लासंखेज्जया वाऊ ॥२५६॥

अर्थ- बादर पर्याप्तक तैजसकायिक जीवोंका जितना प्रमाण है उनमें असंख्यातवें भाग प्रमाण विक्रिया शक्तिसे युक्त है और वायुकायिक जितने जीव हैं उनमें पल्यके असंख्यातवें भाग विक्रिया शक्तिसे युक्त है।

Trans. 259. The number of gross developable fire-(bodied-souls) with power of transformation (Vikriyā) is an innumerable part of its total; (and the number of such air-bodied souls is an innumerable part of a Palya).

पल्लासंखेज्जाहय विंदंगुलगुणदसेढिमेत्ता हु ।
वेगुव्विय पंचक्खा भोगभुमा पुह विगुव्वंति ॥२६०॥

अर्थ- पल्यके असंख्यातवें भागसे अभ्यस्त (गुणित) घनांगुलका जगच्छ्रेणीके साथ गुणा करनेपर जो लब्ध आवे उतने ही पर्याप्त पंचेन्द्रिय तिर्यचों और मनुष्योंमें वैक्रियिक योगके धारक हैं और भोगभूमियाँ तिर्यच तथा मनुष्य कर्मभूमियाँमें चक्रवर्ती पृथक् विक्रिया भी करते हैं।

Trans. 260. A cubic finger (Ghanāṅgula) multiplied by an innumerable part of a Palya, multiplied by the base (of the Universe, Jagata Śreṇī is) the number of five-sensed transformable (human and sub-human beings).

(But only) those in enjoyment-lands (Bhogabhūmi) (and the Cakravarties in the Karmabhūmi) transform into separate (bodies) (i.e. have separable transformation) (Pṛthaka-vikriyā).

देवेहिं सादिरेया तिजोगिणो तेहिं हीण तसपुण्णा ।
वियजोगिणो तदूणा संसारी एकजोगा हु ॥२६१॥

अर्थ- देवोंसे कुछ अधिक त्रियोगियोंका प्रमाण है। पर्याप्त त्रसरशिमें से त्रियोगियोंको घटानेपर जो शेष रहे उतना द्वियोगियोंका प्रमाण है। संसारराशिमेंसे द्वियोगी तथा त्रियोगियोंका प्रमाण घटानेसे एक योगियोंका प्रमाण निकलता है।

Trans. 261. (The number of the) celestial beings with others (i.e., hellish, and developable, human, and rational sub-human beings) is the number of three (i.e., mind, speech and body) vibration (souls). (The number of) mobile developables minus these (3 vibration souls) (is the number of) 2 vibration (souls) (i.e., speech and body). (The number of) mundane souls minus that (i.e., the total of 3 and 2 vibration-souls is) certainly (the number of) one (body) vibration (souls).

अंतोमुहुत्तमेत्ता चउमणजोगा कमेण संखगुणा ।
तज्जोगो सामण्णं चउवचिजोगा तदो दु संखगुणा ॥२६२॥

अर्थ- सत्य, असत्य, उभय, अनुभय इन चार मनोयोगोंमें प्रत्येकका काल यद्यपि अन्तर्मुहूर्त मात्र है तथापि पूर्व-पूर्वकी अपेक्षा उत्तरोत्तरकाल क्रमसे संख्यातगुणा-संख्यातगुणा है और चारोंकी जोड़का जितना प्रमाण है उतना सामान्य मनोयोगका काल है। इस प्रकार चारों मनोयोगोंके जोड़का जितना प्रमाण है उससे संख्यात गुणा काल चारों वचनयोगोंका है और प्रत्येक वचनयोगका काल भी अन्तर्मुहूर्त है तथा पूर्व-पूर्वकी अपेक्षा उत्तरोत्तरका प्रमाण संख्यातगुणा-संख्यातगुणा है और चारोंके जोड़का प्रमाण भी अन्तर्मुहूर्त है।

Trans. 262. The four mind-vibrations (tru, false, both, and neither, Satya, Asatya, Ubhaya and Anubhaya last only) for one antar-muhūrta (each). (Each one is) successively numerable times (the preceding one). Their total (i.e., of all four is) the same (i.e. an antar-muhūrta). And the four speech vibrations (are) successively numerable times of that (total of four).

तज्जोगो सामण्णं काओ संखाहदो तिजोगमिदं ।

सव्वसमासविभजिदं सगसगुणसंगुणे दु सगरासी ।।२६३।।

अर्थ- चारों वचनयोगोंके जोड़का जो प्रमाण हो वह सामान्य वचनयोगका काल है। इससे संख्यातगुणा काययोगका काल है। तीनों योगोंके कालको जोड़ देनेसे जो समयोंका प्रमाण हो उसका पूर्वोक्त त्रियोगिजीवराशिमें भाग देनेसे जो लब्ध आवे उस एक भागसे अपने-अपने कालके समयोंसे गुणा करने पर अपनी-अपनी राशिका प्रमाण निकलता है।

Trans. 263. Their total (i.e., of all the four speech-vibrations is) the same (i.e. one antar-muhūrta). The body (vibration is) numerable times (of this total). (The total number of) all the souls (having 1, 2, and 3 vibrations) divided by (the number of instants in the total duration of all) the 3 vibrations, multiplied by the instants in the duration of each is the number of souls in each respectively.

कम्मोरालियमिस्सय ओरालद्धासु संचिदअणंता ।

कम्मोरालियमिस्सय ओरालियजोगिणो जीवा ।।२६४।।

अर्थ- कर्मणकाययोग, औदारिकमिश्रयोग तथा औदारिककाययोगके समयमें एकत्रित होने वाले कर्मणयोगी, औदारिकमिश्रयोगी तथा औदारिककाययोगी जीव अनन्तानन्त हैं।

Trans. 264. The total number of souls with the vibration of Karmic, physical mixed (with Karmic). and physical bodies, during the time of Karmic, physical mixed (with Karmic), and physical vibration is infinite.

समयत्तयसंखावलि संखगुणावलिसमासहिदरासी ।

सगगुणगुणिदे थोवो असंखसंखाहदो कमसो ।।२६५।।

अर्थ- कर्मणकाययोगका काल तीन समय, औदारिकमिश्रयोगका काल संख्यात आवली, औदारिक काययोगका काल संख्यातगुणित (औदारिकमिश्रके कालसे) आवली है। इन तीनोंको जोड़ देनेसे जो समयोंका प्रमाण हो उसका एक योगिजीवराशिमें भाग देनेसे लब्ध एक भागके साथ कर्मणकालका गुणा करने पर कर्मणकाय योगी जीवोंका प्रमाण निकलता है। इसी प्रकार उसी एक भाग के साथ औदारिक मिश्रकाल तथा औदारिककालका गुणा करने पर औदारिकमिश्र काययोगी और औदारिककाययोगी जीवोंका प्रमाण होता है। इन तीनों तरहके जीवोंमें सबसे कम कर्मण काययोगी हैं। उनसे असंख्यातगुणे औदारिकमिश्रयोगी हैं और उनसे संख्यातगुणे औदारिककाययोगी हैं।

Trans. 265. Three instants, numerable winks (āvali), numerable times (i.e. numerable) winks, (are respectively the time for the above 3 kinds of vibrations). The number (of souls with body-vibration alone) divided by the total (of these three) multiplied by the instants in the time of each (give the number of souls in each). (And) respectively (they are) the least, innumerable times (this least), and numerable times this last.

सोवक्कमाणुवक्कम कालो संखेज्जवासठिदिवाणे ।

आवलिअसंखभागे संखेज्जावलिपमा कमसो ।।२६६।।

अर्थ- संख्यात वर्षकी स्थिति वाले उसमें भी प्रधानतया जघन्य दश हजार वर्षकी स्थिति वाले व्यन्तर देवोंका सोपक्रम तथा अनुपक्रम काल क्रमसे आवलीके असंख्यातवें भाग और संख्यात आवली प्रमाण है।

Trans. 266. (The maximum) continuous birth-time (Sopakrama Kāla), and non-birth times (Anupakrama kāla), a kind of interquest, (Antara-mārgaṇā), for the peripatetic (Vyantara-order of celestial beings) with (a life) duration of numerable years (i.e., a minimum of 10,000 years) (is) respectively, innumerable part of an Āvalī and numerable Āvalīs in extent (equal to 12 Muhūrta).

तहिं सव्वे सुद्धसला सोवक्कमकालदो दु संखगुणा ।

तत्तो संखगुणूणा अपुण्णकालमिह सुद्धसला ॥२६७॥

अर्थ- जघन्य दश हजार वर्षकी स्थितिमें अनुपक्रमकालको छोड़कर पर्याप्त तथा अपर्याप्त काल सम्बन्धी सोपक्रम कालकी शलाकाओंका प्रमाण सोपक्रम कालके प्रमाणसे संख्यात गुणा है और इससे संख्यातगुणा कम अपर्याप्तकाल सम्बन्धी सोपक्रम कालकी शलाकाओंका प्रमाण है।

Trans. 267. In that, (ten thousand years), the total (number) of uninterrupted (Suddha) period (Śalākā) (of continuous birth) is numerable times the duration of continuous birth-time. (And) the (number) of uninterrupted periods of non-developable condition (is) the (above total) minus the numerable times of that (i.e., continuous birth-time, which is equal to an innumerable part of an Āvalī).

तं सुद्धसलागाहिद णियरासिमपुण्णकाललद्धाहिं ।

सुद्धसलागाहिं गुणे वेंतरवेगुव्वमिस्सा हु ॥२६८॥

अर्थ- पूर्वोक्त व्यन्तर देवोंके प्रमाणमें उपर्युक्त सर्व कालसम्बन्धी शुद्ध उपक्रम शलाका प्रमाणका भाग देनेसे जो लब्ध आवे उसका अपर्याप्त काल सम्बन्धी शुद्ध उपक्रम शलाकाके साथ गुणा करनेपर जो प्रमाण हो उतने ही वैक्रियकमिश्रयोगके धारक व्यन्तरदेव समझने चाहिये।

Trans. 268. Theri total (i.e. the number of peripatetic Vyantara) divided by (the number) of uninterrupted period (of continuous birth time in the 10, 000 years), multiplied (by the number of uninterrupted periods (for their undevelopable condition) (is) (the number of) peripatetics with fluid mixed with Karmic-body-vibration (Vaikriyika-Miśra-Kāya Yoga).

तहिं सेसदेवणारयमिस्सजुदे सव्वमिस्सवेगुव्वं ।

सुरणिरयकायजोगा वेगुव्वियकायजोगा हु ॥२६९॥

अर्थ- वैक्रियक मिश्र काययोगके धारक उक्त व्यन्तरोंके प्रमाणमें शेष भवनवासी, ज्योतिषी, वैमानिक और नारकियोंके मिश्र काययोगवालोंका प्रमाण मिलानेसे सम्पूर्ण मिश्र वैक्रियक काययोगवालोंका प्रमाण होता है और देव तथा नारकियोंके काययोग वालोंका प्रमाण मिलानेसे समस्त वैक्रियक काययोगवालोंका प्रमाण होता है।

Trans. 269. To this, adding the remaining celestial and hellish beings, with (fluid) mixed (with Karmic body vibration), (we get) the total number of souls with fluid mixed (with Karmic body vibration).

The celestial and hellish beings with the fluid body vibration (are) all the souls with fluid body vibration (Vaikriyika Kāya Yoga).

आहारकायजोगा चउवण्णं होति एकसमयमिह ।

आहारमिस्सजोगा सत्तावीसा दु उक्कस्सं ॥२७०॥

अर्थ- एक समयमें आहारकाययोगवाले जीव अधिकसे अधिक चौअन होते हैं और आहारकमिश्रयोगवाले जीव अधिकसे अधिक सत्ताइस होते हैं। यहाँ पर जो उत्कृष्ट शब्द है वह मध्य-दीपक है।

Trans. 270. Maximum (number of Saints in the 6th stage of imperfect vow) with the assimilative-body vibration (Āhāraka-Kāya-Yoga) and with assimilative mixed (with physical body) vibration (Āhāraka-Miśra-Yoga) are 54 and 27 respectively in each instant.

पुरिसिच्छिसंढवेदोदयेण पुरिसिच्छिसंढओ भावे ।
णामोदयेण दव्वे पाएण समा कहिं विसमा ॥२७१॥

अर्थ- पुरुष, स्त्री और नपुंसक वेदकर्मके उदयसे भावपुरुष, भावस्त्री, भावनपुंसक होता है और नामकर्मके उदयसे द्रव्यपुरुष, द्रव्यस्त्री, द्रव्यनपुंसक होता है। सो यह भाववेद और द्रव्यवेद प्रायः करके समान होता है, परन्तु कहीं कहीं विषम भी होता है।

Trans. 271. By the operation of the male, female and common sex-inclination (Veda, Quasi-passion, No-Kaṣāya sub-class of right-conduct-deluding-Karma (the souls are respectively, male, female and common in thought (Bhāva, i.e., subjectivity) : and by the operation of (the limb-and-minor-limb āṅgopāṅga sub-class of) the body making Karma, (they are) mostly, the same in matter (Dravya, objectivity); sometimes (they may be) different.

वेदस्सुदीरणाए परिणामस्स य हवेज्ज संमोहो ।
संमोहेण ण जाणदि जीवो हि गुणं व दोसं वा ॥२७२॥

अर्थ- वेद नोकषायके उदय तथा उदीरणा होनेसे जीवके परिणामोंमें बड़ा भारी मोह उत्पन्न होता है और इस मोहके होनेसे यह जीव गुण अथवा दोषका विचार नहीं कर सकता।

Trans. 272. On premature fruition (Udīraṇā) of sex-inclination (Karma) (there) is infatuation of the thought activity (of the soul). By infatuation the soul loses sight of (its own) attributes and the defects (of sex inclination.)

पुरुगुणभोगे सेदे करेदि लोयम्मि पुरुगुणं कम्म ।
पुरुउत्तमो य जह्मा तह्मा सो वण्णिओ पुरिसो ॥२७३॥

अर्थ- उत्कृष्ट गुण अथवा उत्कृष्ट भोगोंका जो स्वामी हो अथवा जो लोकमें उत्कृष्ट गुण युक्त कर्मको करे, यद्वा जो स्वयं उत्तम हो उसको पुरुष कहते हैं।

Trans. 273. Because (he) exercises ownership over (Shete) highest (Puru) attributes, (i.e. right belief, right knowledge and right conduct) (and) enjoyments, and in the world performs actions (i.e. religion, Dharma, prosperity, Artha, enjoyment, Kāma and Liberation, Mokṣa), of the highest quality, and is the most (capable of becoming) the highest, therefore he is called man or Puruṣa.

छादयदि सयं दोसे णयदो छाददि परं वि दोसेण ।
छादणसीला जह्मा तह्मा सा वण्णिया इत्थी ॥२७४॥

अर्थ- जो मिथ्यादर्शन, अज्ञान, असंयम आदि दोषोंसे अपनेको आच्छादित करे और मृदु-भाषण, तिरछी चितवन आदि व्यापारसे जो दूसरे पुरुषोंको भी हिंसा, अब्रह्म आदि दोषोंसे आच्छादित करे उसको आच्छादन स्वभावयुक्त होनेसे स्त्री कहते हैं।

Trans. 274. Because (she) covers (strīṇāti) herself with the defects (of wrong belief, wrong knowledge, non-control etc.), (and) by (her) leading (by means of sweet, words, "glad eye" etc.) covers the others also with defects and has secretive disposition, therefore she is called woman (Strī).

णेवित्थी नेव पुमं णउंसओ उहयलिंगवदिरित्तो ।
इद्धावगिसमाणगवेदणगरुओ कलुसचित्तो ॥२७५॥

अर्थ- जो न स्त्री हो, न पुरुष हो ऐसे दोनों ही लिंगोंसे रहित जीवको नपुंसक कहते हैं। इसके अवा (भट्टा) में पकती हुई ईटकी अग्निके समान तीव्रकषाय होती है। अतएव इसका चित्त प्रतिसमय कलुषित रहता है।

Trans. 275. The common (Napurṇsaka) is neither woman nor man. (is, devoid of the signs of both, and (has) a defiled heart, consumed with intense sex desire like the fire in a brick kiln.

तिणकारिसिद्धपागग्नि सरिसपरिणाम वेयणुम्मुक्का ।

अवगयवेदा जीवा सयसंभव णंतवर सोक्खा ॥२७६॥

अर्थ- तृणकी अग्नि, कारीष अग्नि, इष्टपाक अग्नि (अवाकी अग्नि) के समान वेदके परिणामोंसे रहित जीवोंको अपगतवेद कहते हैं। ये जीव अपनी आत्मासे ही उत्पन्न होने वाले अनन्त और सर्वोत्कृष्ट सुखको भोगते हैं।

Trans. 276. The souls freed from the troubling of thought activities (of the male, female, and common sex) like the fire in (quickly burnt) straw, of (slow burning of dried) cow-dung, or of (consuming heat of) a brick kiln, (and) absorbed in their self-born infinite supreme bliss (are those who have) gone beyond the sex feelings.

जोइसियवाणजोणिणि तिरिक्खपुरुसा य सण्णि णो जीवा ।

तत्तेउ पम्म लेस्सा संखगुणूणा कमेणेदे ॥२७७॥

अर्थ- ज्योतिषी, व्यन्तर योनिनी तिर्यच्, तिर्यक् पुरुष, संज्ञी तिर्यच, तेजोलेश्यावाले संज्ञी तिर्यच तथा संज्ञी तिर्यच, पद्मलेश्यावाले जीव क्रम से उत्तरोत्तर संख्यातगुणे-संख्यातगुणे हीन हैं।

Trans. 277. Stellars (Jyotiṣa), peripatetics (Vyantara) orders of celestial beings, female sub-humans (Yonimati Tiryañca), women (Yonimati Puruṣa), rational sub-humans), with yellow thought-paint, and (rational sub-humans) with pink (thought paint)- These souls (are) successively, numerable times less than, (or a numerable part of the preceding one).

इगिपुरिसे बत्तीसं देवी तज्जोग भजिद देवोघे ।

सगगुणगारेण गुणे पुरुसा महिला य देवेसु ॥२७८॥

अर्थ- देवगतिमें एक देवकी कमसे कम बत्तीस देवियाँ होती हैं। इसलिए देव और देवियोंके जोड़रूप तेतीसका समस्तदेवराशिमें भाग देनेसे जो लब्ध आवे उसका अपने-अपने गुणाकारके साथ गुणा करनेसे देव और देवियोंका प्रमाण निकलता है।

Trans. 278. Every male (celestial being) has, (if he has any) 32 celestial wives, (at least). The total number of celestial beings divided by the sum of these (i.e. 33) and multiplied by the number of males or females, gives the total number of either, respectively, among the celestial beings.

देवेहिं सादिरेया पुरिसा देवीहिं साहिया इत्थी ।

तेहिं विहीण सवेदो रासी संढाण परिमाणं ॥२७९॥

अर्थ- देवोंसे कुछ अधिक मनुष्य और तिर्यग्गतिसहित पुंवेदवालोंका प्रमाण है और देवियोंसे कुछ अधिक मनुष्यनी तथा तिर्यग्गति सहित स्त्रीवेदवालोंका प्रमाण है। सवेद राशिमेंसे पुंवेद तथा स्त्रीवेदका प्रमाण घटानेसे जो शेष रहे वह नपुंसकवेदियोंका प्रमाण है।

Trans. 279. Male celestial beings with others (i.e., male human, and sub-human beings) (make up the total of) males. Female, celestial beings with others (i.e., female human and sub-human beings) (make up the total of) females. The total of sexed-beings minus these (i.e., males and females is) the number of commons.

गब्भणपुंइत्थिसण्णी सम्मुच्छणसण्णि पुण्णगा इदरा ।

कुरुजा असण्णि गब्भज णपुइत्थीवाणजोइसिया ॥२८०॥

थोवा तिसु संखगुणा तत्तो आवलि असंखभागगुणा ।

पत्लासंखेज्जगुणा तत्तो सव्वत्थ संखगुणा ॥२८१॥

अर्थ- गर्भज संज्ञी नपुंसक १, पुल्लिगी २, स्त्रीलिङ्गी ३, सम्मूर्छनसंज्ञी पर्याप्त ४, अपर्याप्त ५, भोभूमियाँ ६, असंज्ञी गर्भज नपुंसक ७, पुल्लिगी ८, स्त्रीलिङ्गी ९, व्यन्तर १० और ज्योतिषी ११ इन ग्यारह स्थानोंको

क्रमसे स्थापन करना चाहिये। जिसमें पहला स्थान सबसे स्तोक है और उसके आगेके तीन स्थान संख्यातगुणे-संख्यातगुणे हैं। पाँचवाँ स्थान आवलीके असंख्यातवें भाग गुणा है। छद्वा स्थान पत्यके असंख्यातवें भागगुणा है। इससे आगे पाँचों ही स्थानक्रमसे संख्यातगुणे-संख्यातगुणे हैं।

Trans. 280-281. Uterine rational commons, males and females; spontaneously generated rational developable, and the other (undevelopables); Kuru-born (i.e. born in the enjoyment-regions, (Bhoga-bhūmi); uterine irrational commons, males and females; peripatetics and stellars- (Of these eleven) the first is the least (in number), (the next) three (are numerable times of their preceding ones), (the next is) (as many times of the 4th as) innumerable part of a wink (Āvalī); (the next is as many times of the 5th as) an innumerable part of a (Palya): all (the rest five are) numerable times of the one preceding them.

सुहदुक्ख सुबहुसस्सं कम्मक्खेत्तं कसेदि जीवस्स ।

संसारदूरमेरं तेण कसाओ त्ति णं वेत्ति ॥२८२॥

अर्थ- जीवके सुख-दुःख आदि रूप अनेक प्रकारके धान्यको उत्पन्न करने वाले तथा जिसकी संसाररूप मर्यादा अत्यन्त दूर है ऐसे कर्मरूपी क्षेत्र (खेत) का यह कर्षण करता है, इसलिये इसको कषाय कहते हैं।

Trans. 282. They (the ācāryas) call (Passion) as Kaṣāya, (because) it ploughs (Kṛṣati) the field of soul's Karmas, extending to (eternal and infinite) length of mundane existence, and productive of huge crop of pleasure and pain.

सम्पत्तदेससयल चरित्तजहक्खादचरण परिणामे ।

घादंति वा कसाया चउसोल असंखलोगमिदा ॥२८३॥

अर्थ- सम्यक्त्व, देशचारित्र, सकलचारित्र, यथाख्यातचारित्ररूपी परिणामोंको जो कषे-घाते-न होने दे, उसको कषाय कहते हैं। इसके अनन्तानुबन्धी, अप्रत्याख्यानावरण, प्रत्यख्यानावरण, संज्वलन इस प्रकार चार भेद होते हैं। अनन्तानुबन्धी आदि चारोंके क्रोध, मान, माया, लोभ इस तरह चार-चार भेद होनेसे कषायके उत्तर भेद सोलह होते हैं किन्तु कषायके उदय स्थानोंकी अपेक्षासे संख्यात लोकप्रमाण भेद हैं जो सम्यक्त्वको रोके उसको अनन्तानुबन्धी, जो देशचारित्रको रोके उसको संज्वलन कषाय कहते हैं।

Trans. 283. Or (those which) destroy (Kaṣanti) the thought-activities of right belief (Samyaktva), conduct (Cāritra). with partial (Deśa,) and full (Sakala, vows). (and) ideal conduct (Yathākhyāta cāritra), (are) the passions (Kaṣāyas). (Their) number (is) four, sixteen, and innumerable (times the spatial units in) the universe.

सिलपुढविभेद धूली जलराइसमाणओ हवे कोहो ।

णारयतिरियणरामरगईसु उप्पायओ कमसो ॥२८४॥

अर्थ- क्रोध चार प्रकारका होता है- एक पत्थरकी रेखाके समान, दूसरा पृथ्वी की रेखा के समान, तीसरा धूलि रेखाके समान, चौथा जलरेखाके समान। ये चारों प्रकारके क्रोध क्रमसे नरक, तिर्यच, मनुष्य तथा देवगतिमें उत्पन्न कराने वाले हैं।

Trans. 284. Anger is (deep) like a furrow in stone, or in earth; or (mild like) a line drawn in dust, or water. (They are) respectively the producers of the hellish, sub-human, human and celestial conditions of existence.

सेलट्टिकट्टवेत्ते गियभेएणणुहरंतओ माणो ।

णारयतिरियणरामरगईसु उप्पायओ कमसो ॥२८५॥

अर्थ- मान भी चार प्रकारका होता है- पत्थरके समान, हड्डीके समान, काठके समान तथा बेंतके समान। ये चार प्रकारके मान भी क्रमसे नरक, तिर्यच मनुष्य तथा देवगतिके उत्पादक हैं।

Trans. 285. Pride is (unbending like) mountain, bone, wood, and cane, illustrating (the distinctions of) its (four) kinds, (very-intense, etc). (They are) respectively, the producers of the hellish, sub-human, human and celestial conditions of existence.

वेणुवमूलोरब्मय सिंगे गोमुत्तए य खोरप्पे ।
सरिसी माया णारयतिरियणरामरगईसु खिवदि जियं ॥२८६॥

अर्थ- माया भी चार प्रकारकी होती है- बाँसकी जड़के समान, मेढ़के सींगके समान, गोमूत्रके समान, खुरपाके समान। यह चार तरहकी माया भी क्रमसे जीवको नरक, तिर्यच, मनुष्य और देवगतिमें ले जाती है।

Trans. 286. Deceit (Māyā) is (crooked) like the bamboo root, ram horn, stream of cow water, hoof mark. (It) casts the soul into hellish, sub-human, human and celestial conditions of existence.

किमिरायचक्कतणुमल हरिद्वराएण सरिसओ लोहो ।
णारयतिरिक्खमाणुसदेवेसुप्पायओ कमसो ॥२८७॥

अर्थ- लोभ कषाय भी चार प्रकार की होती है- कृमिरागके समान, चक्रमल (रथ आदिके पहियोंके भीतर का ओंगन) के समान, शरीरके मलके समान, हल्दीके रंगके समान। यह भी क्रमसे नरक, तिर्यच, मनुष्य देवगतिका उत्पादक है।

Trans. 287. Greed is (fast) like crimson colour, wheel-dirt, body (dirt,) turmeric colour. (They are respectively producers of the hellish, sub-human, human and celestial conditions of existence.

णारयतिरिक्खणरसुरगईसु उप्पण्णपढमकालहि ।
कोहो माया माणो लोहुदओ अणियमो वापि ॥२८८॥

अर्थ- नरक, तिर्यच, मनुष्य तथा देवगतिमें उत्पन्न होनेके प्रथम समयमें क्रमसे क्रोध, माया, मान और लोभका उदय होता है अथवा यह नियम नहीं भी है।

Trans. 288. In the first instant of birth in hellish, sub-human, human and celestial condition of existence, (there is) operation of anger, deceit, pride, and greed (respectively). But (according to some saints, (it is) not necessarily (so).

अप्पपरोभयबाधण बंधासंजमणिमित्तकोहादी ।
जेसिं णत्थि कसाया अमला अकसाइणो जीवा ॥२८९॥

अर्थ- जिनके स्वयंको, दूसरेको तथा दोनोंको ही बाधा देने और बन्धन करने तथा असंयम करनेमें निमित्तभूत क्रोधादिक कषाय नहीं हैं तथा जो बाह्य और अभ्यन्तर मलसे रहित हैं ऐसे जीवोंको अकषाय कहते हैं।

Trans. 289. (Those) in whom (there) are no passions of anger etc., (which are) the auxiliary cause, of the trouble, bondage and non-control of the self, others, (or) of both (are) dirtless (and) passionless souls.

कोहादि-कसायाणं चउ चउदस बीस होंति पद संखा ।
सत्तीलेस्साआउग बंधाबंधगद भेदेहिं ॥२९०॥

अर्थ- शक्ति, लेश्या तथा आयुके बन्धाबन्ध गत भेदोंकी अपेक्षासे क्रोधादि कषायोंके क्रमसे चार, चौदह, और बीस स्थान होते हैं।

Trans. 290. Of anger, and other passions there are 4, 14, 20 degrees respectively according to the distinctions produced by intensity (Śakti), through-paint (Leśyā), (and) the bondage or non-bondage of age (Āyu-Bandha-Abandha).

सिलसेलवेणुमूलकिमिरायादी कमेण चत्तारि ।
कोहादि कसायाणं सत्ति पडि होंति णियमेण ॥२९१॥

अर्थ- शिलाभेद आदिक चार प्रकारका क्रोध, शैलसमान आदिक चार प्रकारका मान, वेणु (बाँस) मूलके समान आदिक चार तरहकी माया, कृमिरागके समान आदिक चार प्रकारका लोभ, इस तरह क्रोधादिक कषायोंके उक्त नियमके अनुसार क्रमसे शक्तिकी अपेक्षा चार-चार स्थान हैं।

Trans. 291. (Furrow in) stone (etc.) mountain (etc.), bamboo root (etc), crimson colour (etc.), - these four successively of necessity are the degrees of anger and other passions from (the point of view of) intensity Śakti).

किण्हं सिलासमाणे किण्हादी छक्कमेण भूमिम्हि ।

छक्कादी सुक्को ति य धूलिम्मि जलम्मि सुक्केक्का ॥२६२॥

अर्थ- शिलासमान क्रोधमें केवल कृष्ण-लेश्याकी अपेक्षासे एक ही स्थान होता है। पृथ्वी समान क्रोधमें कृष्ण आदिक लेश्याकी अपेक्षा छह स्थान हैं। धूलिके समान क्रोधमें छह लेश्याओंसे लेकर शुक्ललेश्या पर्यंत छह स्थान होते हैं और जल समान क्रोधमें केवल एक शुक्ललेश्या ही होती है।

Trans. 292. (In passions) like (the furrow in) stone. (there is only) black (thought-paint, Leśyā.) (In those like furrow) in earth, (there are) six thought-paints, black etc., successively. (In those like a line) in dust, (there are) six etc., (of thought-paints) upto white. (And in those corresponding to a line) in water, (there is only) one the white thought-paint.

सेलगकिण्हे सुण्णं णिरयं च य भूगएगविट्ठाणे ।

णिरयं इगिवितिआऊ तिट्ठाणे चारि सेसपदे ॥२६३॥

अर्थ- शैलगत कृष्णलेश्यामें कुछ स्थान तो ऐसे हैं कि जहाँ पर आयुबन्ध नहीं होता। इसके अनन्तर कुछ स्थान ऐसे हैं कि जिनमें नरक आयुका बन्ध होता है इसके बाद पृथ्वीभेदगत पहले और दूसरे स्थानमें नरक आयुका ही बन्ध होता है। इसके भी बाद कृष्ण, नील, कपोत लेश्याके तीसरे भेदमें (स्थानमें) कुछ स्थान ऐसे हैं जहाँ नरक आयुका ही बन्ध होता है और कुछ स्थान ऐसे हैं जहाँ पर नरक तिर्यच दो आयुका बन्ध हो सकता है तथा कुछ स्थान ऐसे हैं जहाँ पर नरक तिर्यच तथा मनुष्य तीनों ही आयुका बन्ध हो सकता है। शेष के तीन स्थानोंमें चारों आयुका बन्ध हो सकता है।

Trans. 293. (The bondage of age-Karma is) nil (in the maximum), and hellish (in the higher medium of) black (thought-paint) in stone-furrow (degree), (i.e. very intense passion); and hellish in the 1st and 2nd places of the earth furrow (degree i.e., intense passion); (and) 1 (hellish), 2 (hellish and sub-human.), 3 (hellish, sub-human and human, respectively, in the 3 parts of the third place (with three thought paints) of the earth furrow or intense-degree; (and) four (hellish, sub-human, human and celestial), in each of the remaining (three) places (of the earth furrow i.e., intense passion.)

धूलिगछक्कट्ठाणे चउराऊ तिगदुगं च उवरिल्लं ।

पणचदुठाणे देवं देवं सुण्णं च तिट्ठाणे ॥२६४॥

अर्थ- धूलिभेदगत छह लेश्यावाले प्रथम भेदके कुछ स्थानोंमें चारों आयुका बन्ध होता है। इसके अनन्तर कुछ स्थानोंमें नरक आयुको छोड़कर शेष तीन आयुका और कुछ स्थानोंमें नरक, तिर्यचको छोड़कर शेष दो आयुका बन्ध होता है। कृष्णलेश्याको छोड़कर पाँच लेश्यावाले दूसरे स्थानमें तथा कृष्ण, नीललेश्याको छोड़कर शेष चार लेश्यावाले तृतीयस्थानमें केवल देव आयुका बन्ध होता है। अन्तकी तीन लेश्या वाले चौथे भेदके कुछ स्थानोंमें देव आयुका बन्ध होता है और कुछ स्थानोंमें आयुका अबन्ध है।

Trans. 294. (The bondage of age-Karma) in the dust-line degree (i.e., mild passion), in the (first) place of 6 (thought paints is,) 4, i.e., hellish, sub-human, human and celestial), (the last) three (except

hellish), (the last) two (in its 3 parts) (respectively); and beyond it in (its 2nd and 3rd) places, of 5 and 4 (thought-paints is) celestial (in each;)(and) in (its 4th) place of 3 (thought paints) (is) celestial (in one part) and nil (in the other).

सुण्णं दुगइगिठाणे जलहि सुण्णं असंखभजिदकमा ।

चउचोदस वीसपदा असंखलोगा हु पत्तेयं ॥२६५॥

अर्थ- इसीके (धूलि भेदगतही के) पद्म और शुक्ललेश्या वाले पाँचवें स्थानमें और केवल शुक्ललेश्या वाले छठे स्थानमें आयुका अबन्ध है तथा जलभेदगत केवल शुक्ललेश्यावाले एक स्थानमें भी आयुका अबन्ध है। इस प्रकार कषायोंके शक्तिकी अपेक्षा चार भेद, लेश्याओंकी अपेक्षा चौदह भेद, आयुके बन्धाबन्धकी अपेक्षा बीस भेद होते हैं। इनमें प्रत्येकके अवान्तर भेद असंख्यात लोकप्रमाण हैं तथा अपने-अपने उत्कृष्टसे अपने-अपने जघन्य पर्यन्त क्रमसे असंख्यातगुणे-असंख्यातगुणे हीन हैं।

Trans. 295. (The bondage of age-karma in the dust-line or mild passion) in its 5th and 6th places with 2 and one (thought paints is) nil; in water (line also it is) nil; each one is an innumerable part (of the preceding one is intensity), among the 4, 14 and 20 steps successively. Each one is innumerable (times the innumerable spatial units) of the universe.

पुह पुह कसायकालो णिरये अंतोमुहुत्तपरिमाणो ।

लोहादी संखगुणो देवेसु य कोहपहुदीदो ॥२६६॥

अर्थ- नरकमें नारकियोंके लोभादि कषायका काल सामान्यसे अन्तर्मुहूर्तमात्र होने पर भी पूर्व-पूर्वकी अपेक्षा उत्तरोत्तर कषायका काल पृथक्-पृथक् संख्यातगुणा-संख्यातगुणा हैं और देवोंमें क्रोधादिक लोभपर्यन्त कषायोंका काल सामान्यसे अन्तर्मुहूर्त किन्तु विशेष रूपसे पूर्व-पूर्वकी अपेक्षा उत्तरोत्तरका संख्यातगुणा-संख्यातगुणा काल है।

Trans. 296. In hell the duration of passions, greed etc., (i.e. greed, deceit, pride and anger) is for each, one antar-muhūrta, (and the total of the four also is one antar-muhūrta), (and each is) numerable times (of the preceding one). In celestial beings (the duration) of anger etc. (i.e., of anger, pride, deceit and greed, is one antar-muhūrta severally, and collectively, and is also numerable-fold of the preceding one, successively).

सव्वसमासेण वहिद सगसगरासी पुणो वि संगुणिदे ।

सग सग गुणगारेहिं य सगसगरासीण परिमाणं ॥२६७॥

अर्थ- अपनी-अपनी गतिमें सम्भव जीवराशिमें समस्त कषायोंके उदयकालके जोड़का भाग देनेसे जो लब्ध आवे उसका अपने-अपने गुणाकारसे गुणन करनेपर अपनी-अपनी राशिका परिमाण निकलता है।

Trans. 297. The total of each (celestial or hellish class) divided by the total of all (the instants in the 4 passions) multiplied by the number of its own instants (gives the number of its own class.)

णरतिरिय लोहमाया कोहो माणो विइंदियादिव्व ।

आवलि असंखभज्जा सगकालं वा समासेज्ज ॥२६८॥

अर्थ- जिस प्रकार द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय तथा पंचेन्द्रिय जीवोंकी संख्या पहले निकाली है उसी क्रमसे मनुष्य तथा तिर्यचोंके लोभ, माया, क्रोध और मानवाले जीवोंका प्रमाण आवलीके असंख्यातवें भाग क्रमसे निकालना चाहिये अथवा अपने-अपने कालकी अपेक्षासे उक्त कषाय वाले जीवोंका प्रमाण निकालना चाहिये।

Trans. 298. (The number of) humans and sub-humans with greed, deceit, anger and pride (is found by treating their total number minus the numbers of passionless); like 2 sensed etc., beings (in Gāthā 179), by dividing by an innumerable part of a wink (Āvalī). Or (it) may be got from the instants of their duration.

जाणइ तिकालविसए दव्वगुणे पज्जए य बहुभेदे ।
पच्चक्खं च परोक्खं अणेण णाणेत्ति णं वेत्ति ॥२६६॥

अर्थ- जिसके द्वारा जीव त्रिकालविषयक भूत, भविष्यत्, वर्तमान कालसम्बन्धी समस्त द्रव्य और उनके गुण तथा उनकी अनेक प्रकारकी पर्यायोंको जाने उसको ज्ञान कहते हैं। इसके दो भेद हैं, एक प्रत्यक्ष दूसरा परोक्ष।

Trans. 299. (That) by which (the soul) knows (all) the substance, (and their) attributes, and many kinds of modifications, pertaining to the three times (past, present and future), directly and indirectly, is the knowledge (Jñāna) so they say.

पंचेव होंति णाणा मदिसुदओहीमणं च केवलयं ।
खयउवसमिया चउरो केवलणाणं हवे खइयं ॥३००॥

अर्थ- ज्ञानके पाँच भेद हैं- मति, श्रुत, अवधि, मनःपर्यय और केवल। इनमें आदिके चार ज्ञान क्षायोपशमिक हैं और केवलज्ञान क्षायिक है।

Trans. 300. Sensitive (Mati), scriptural (Śruta), visual (Avadhi), mental (Manahparyaya), and perfect (Kevala) are the five kinds of knowledge. (The first) four (are) destructive-subsidential (Kṣāyopāśamika, i.e., they arise when there is partial destruction, partial subsidence, and partial operation of knowledge-obscuring Jñānāvarṇīya Karma), (and) perfect knowledge (is) destructive (kṣāyika, i.e., it arises only on the destruction of the knowledge-obscuring-Karma.)

अण्णाणतियं होदि हु सण्णाणतियं खु मिच्छ अणउदये ।
णवरि विभंगं णाणं पंचिंदिय सण्णिपुण्णेव ॥३०१॥

अर्थ- आदिके तीन (मति, श्रुत, अवधि) ज्ञान समीचीन भी होते हैं और मिथ्या भी होते हैं। ज्ञानके मिथ्या होनेका अन्तरंग कारण मिथ्यात्व तथा अनन्तानुबन्धी कषायका उदय है। मिथ्या अवधिको विभंग भी कहते हैं। इसमें यह विशेषता है कि यह विभंगज्ञान संज्ञी पर्याप्त पंचेन्द्रियके ही होता है।

Trans. 301. By the operation of wrong belief (Mithyātva), and error (feeding-passions, Anantānubandhī-Kaṣāya) sub-classes of deluding, (Mohaniya Karma), (the first) 3 (kinds of) right knowledge themselves certainly become the three kinds of wrong knowledge; but wrong. visual (Vibhaṅga or Ku-avadhi is found, only in developable rational five-sensed beings.

मिस्सुदये सम्मिस्सं अण्णाण तियेण णाणतियमेव ।
संजमविसेससहिए मणपज्जवणाणमुदिट्ठं ॥३०२॥

अर्थ- मिश्र प्रकृतिके उदयसे आदिके तीन ज्ञानोंमें समीचीनता तथा मिथ्यापना दोनों ही पाये जाते हैं। इसलिये इस तरहके इन तीनों ही ज्ञानोंको मिश्र ज्ञान कहते हैं। मनःपर्यय ज्ञान जिनके संयम होता है उन्हीं के होता है।

Trans. 302. By the operation of the mixed (Miśra, right-and-wrong-belief of sub-class of right-belief-deluding Karma, Darśan Moha) the 3 kinds of (right) knowledge (are) themselves mixed up with 3 (kinds of) wrong knowledge. Mental knowledge has been predicated of (saints from the 6th to 12th stage with special (self) control.

विसजंतकूडपंजर बंधादिसु विणुवएसकरणेण ।
जा खलु पवट्ठइ मई मइ अण्णाणं ति णं वेत्ति ॥३०३॥

अर्थ- दूसरेके उपदेशके विना ही विष, यन्त्र, कूट, पंजर तथा बंध आदिकके विषयमें जो बुद्धि प्रवृत्त होती है उसको मत्तज्ञान कहते हैं।

Trans. 303. The intelligence, which, without the instrumentality of (any one's) teaching, makes (one proficient) in poisons, mechanical devices, nets, traps, and loops etc. (for capturing elephants, lions, fish, birds etc., is wrong-sensitive-knowledge. So they call it.

आभीयमासुरक्खं भारहरामायणादि उवएसा ।

तुच्छा असाहणीया सुय अण्णाणं ति णं बेति ॥३०४॥

अर्थ- चौरशास्त्र, तथा हिंसाशास्त्र, भारत, रामायण आदिके परमार्थ शून्य अतएव अनादरणीय उपदेशोंको मिथ्या श्रुतज्ञान कहते हैं।

Trans. 304. (Proficiency in) theft (and) police, preaching of (Mahā) Bhārata and Rāmāyaṇa etc., vulgar and contemptible (literature), (constitute) wrong scriptural knowledge. So they call it.

विवरीयमोहिणाणं खओवसमियं च कम्मबीजं च ।

वेभंगो ति पउच्चइ समत्त णाणीण समयम्हि ॥३०५॥

अर्थ- सर्वज्ञोंके उपदिष्ट आगममें विपरीत अवधिज्ञानको विभंग कहते हैं। इसके दो भेद हैं- एक क्षायोपशामिक दूसरा भवप्रत्यय।

Trans. 305. (Knowledge which is) opposed to visual knowledge, which is destructive-subsidential (kṣāyopāśamika) knowledge and (is) the cause of Karmas is wrong-visual-knowledge (Vibhaṅga). This has been said in the scriptures of the (saints) with complete knowledge.

अहिमुह णियमियबोहण माभिणिबोहियमणिंदिइदिय जं ।

अवग्गहईहावाया धारणा होति पत्तेयं ॥३०६॥

अर्थ- इन्द्रिय और अनिन्द्रिय (मन) की सहायतासे अभिमुख और नियमित पदार्थका जो ज्ञान होता है उसको आभिनिबोधिक कहते हैं। इसमें प्रत्येकके अवग्रह, ईहा, अवाय, धारणा ये चार-चार भेद होते हैं।

Trans. 306. Knowledge through senses and the mind of (an object which is both) present to (the sense) (and) destined (to be known by it, is) sensitive knowledge (Abhinibodha or mati). Perception (Avagraha), conception (ihā), judgment (Avāya) and retention (Dhāraṇā) are (the four kinds appertaining to each of the senses and mind).

वेजणअत्यवग्गह भेदा हु हवन्ति पत्तपत्तये ।

कमसो ते वावरिदा पढमं ण हि चक्खुमणसाणं ॥३०७॥

अर्थ- अवग्रहके दो भेद हैं- एक व्यंजनावग्रह दूसरा अर्थावग्रह। जो प्राप्त अर्थके विषयमें होता है उसको व्यंजनावग्रह कहते हैं और जो अप्राप्त अर्थके विषयमें होता है उसको अर्थावग्रह कहते हैं और ये पहले व्यंजनावग्रह, पीछे अर्थावग्रह इस क्रमसे होते हैं तथा व्यंजनावग्रह चक्षु और मनसे नहीं होता।

Trans. 307. The (two) kinds of perception (avagraha), indeterminate (Vyañjana) and determinate (Artha-Avagraha) are respectively of objects which can be brought close to the senses and of objects which cannot be brought (close to the senses). They rise in succession (the determinate always follows indeterminate perception). The first (indeterminate perception) (is) never by the eye or the mind.

विसयाणं विसईणं संजोगाणंतरं हवे णियमा ।

अवगहणाणं गहिदे विसेसकंखा हवे ईहा ॥३०८॥

अर्थ- पदार्थ और इन्द्रियोंका योग्य क्षेत्रमें अवस्थानरूप सम्बन्ध होनेपर सामान्य अवलोकन या निर्विकल्प ग्रहणरूप दर्शन होता है और इसके अन्तर विशेष आकार आदिकको ग्रहण करने वाला अवग्रह ज्ञान होता है। इसके अनन्तर जिस पदार्थको अवग्रहने ग्रहण किया है उसीके किसी विशेष अंशको ग्रहण करने वाला ईहा ज्ञान होता है।

Trans. 308. Perception knowledge necessarily rises immediately on the coming together of the senses and the sense-objects (i.e., after conation, Darśana). (Perception) being acquired, the desire (to gain) more (definite knowledge) is conception (ihā).

ईहणकरणेण जदा सुणिण्णओ होदि सो अवाओ दु ।

कालंतरे वि णिण्णिद वत्थुसमरणस्स कारणं तुरियं ॥३०६॥

अर्थ- ईहा ज्ञानके अनन्तर वस्तुके विशेष चिह्नोंको देखकर जो उसका विशेष निर्णय होता है उसको अवाय कहते हैं। जैसे भाषा, वेष-विन्यास आदिको देखकर 'यह दक्षिणात्य ही है' इस तरहके निश्चयको अवाय कहते हैं। जिसके द्वारा निर्णीत वस्तुका कालान्तरमें भी विस्मरण न हो उसको धारणाज्ञान कहते हैं।

Trans. 309. After conception, when (there) is complete ascertainment, it (is) judgment, (Avāya). The cause of remembering the ascertained object even at an interval of time (is) the fourth (i.e. retention, Dhāraṇā).

बहु बहुविहं च खिप्पा णिस्सिदणुत्तं धुवं च इदरं च ।

तत्थेक्के जादे छत्तीसं तिसयभेदं तु ॥३१०॥

अर्थ- उक्त मतिज्ञानके विषयभूत पदार्थके बारह भेद हैं- बहु, अल्प, बहुविध, एकविध, या अल्पविध, क्षिप्र, अक्षिप्र, अनिःसृत, निःसृत, अनुक्त, उक्त, ध्रुव, अध्रुव। इनमेंसे प्रत्येक विषयमें मतिज्ञानके उक्त अट्ठाईस भेदोंकी प्रवृत्ति होती है, इसलिये बारहको अट्ठाईससे गुणा करनेपर मतिज्ञानके तीन सौ छत्तीस भेद होते हैं।

Trans. 310. More (bahu), of many kinds (Bahu-vidha), quick (Kṣipra), (hidden) (Aniḥ-sṛta), unexpressed (Anukta), lasting (Dhruva), and their opposites, (i.e., one, Alpa or Eka; of one kind, Eka-Vidha; slow, Akṣipra; exposed, Niḥsṛta; described, Ukta; transcient, (adhruva)- (By these twelve being applied) to each one of those (28) are produced 336 kinds.

बहुवत्ति-जादिगहणे बहु बहुविहमियरमियर गहणम्हि ।

सगणामादो सिद्धा खिप्पादी सेदरा य तहा ॥३११॥

अर्थ- एक जातिकी बहुत सी व्यक्तियोंको बहु कहते हैं। अनेक जातिके बहुत पदार्थोंको बहुविध कहते हैं। एक जातिकी एक दो व्यक्तिको अल्प (एक) कहते हैं। एक जातिकी अनेक व्यक्तियोंको एकविध कहते हैं अथवा दो जातियोंके अनेक व्यक्तियोंको अल्पविध कहते हैं। क्षिप्रादिक तथा उनके प्रतिपक्षियोंका उनके नामसे ही अर्थ सिद्ध है।

Trans. 311. Apprehension of many things of the same and of different kinds (its perception etc., of) more (bahu) and of many kinds (Bahu-vibha). Apprehension of the other (i.e., of one thing only or of one kind is) the other (i.e., Eka or Eka-vidha). And quick (kṣipra) etc., and their opposites are explained by their names.

वत्थुस्स पदेसादो वत्थुगहणं तु वत्थुदेसं वा ।

सयलं वा अवलंबिय अणिसिदं अण्णवत्थुगई ॥३१२॥

अर्थ- वस्तुके एकदेशको देखकर समस्त वस्तुका ज्ञान होना, अथवा वस्तुके एकदेश या पूर्ण वस्तुका ग्रहण करके उसके निमित्तसे किसी दूसरी वस्तुके होने वाले ज्ञानको भी अनिःसृत कहते हैं।

Trans. 312. Perception (etc.) of the (whole) thing from (seeing only a) part of it, or knowledge of (hidden) object by means of (perception etc.) (of) a part or whole (of another thing) (is perception etc.,) (of) the hidden object (aniḥsṛta).

पुक्खरगहणे काले हत्थिस्स य वदणगवयगहणे वा ।

वत्थंतरचंदस्स य धेणुस्स य वोहणं च हवे ॥३१३॥

अर्थ- जलमें डूबे हुए हस्तीकी सूंडको देखकर उसी समयमें जलमग्न हस्तीका ज्ञान होना अथवा मुखको देखकर उसी समय उससे भिन्न किन्तु उसके सदृश चन्द्रमाका ज्ञान होना अथवा गवयको देखकर उसके सदृश गौका ज्ञान होना। इनको अनिःसृत ज्ञान कहते हैं।

Trans. 313. Knowledge of the (whole submerged body of the) elephant at the time of perceiving (only), the tip of his trunk, or (the knowledge) of the other thing moon, and of the cow, on apprehension of the face (of a woman), or an ox (Gavaya, a species of ox) is (illustrative of perception etc., of the hidden objects.)

एकचउक्कं चउवीसद्वावीसं च तिप्पडिं किच्चा ।

इगिछव्वारस गुणिदे मदिणाणे होति ठाणाणी ॥३१४॥

अर्थ- मतिज्ञान सामान्यकी अपेक्षा एक भेद, अवग्रह, ईहा, अवाय, धारणाकी अपेक्षा चार भेद, पाँच इन्द्रिय और छट्टे मनसे अवग्रहादि चारके गुणा करनेकी अपेक्षा चौबीस भेद, अर्थावग्रह और व्यंजनावग्रह दोनोंकी अपेक्षासे अट्ठाईस भेद, मतिज्ञानके होते हैं। इनको क्रमसे तीन पंक्तियोंमें स्थापना करके इनका एक, छह और बारह के साथ यथाक्रमसे गुणा करनेपर मतिज्ञानके सामान्य, अर्ध और पूर्ण स्थान होते हैं।

Trans. 314. 1, 4, 24 and 28 being placed in three lines, each multiplied by one, six and twelve, are the kinds of sensitive knowledge.

अत्थादो अत्थंतरमुवलंभंतं भणंति सुदणाणं ।

आभिणिबोहिय पुव्वं णियमेणिह सद्दजं पमुहं ॥३१५॥

अर्थ- मतिज्ञानके विषयभूत पदार्थसे भिन्न पदार्थके ज्ञानको श्रुतज्ञान कहते हैं। यह ज्ञान नियमसे मतिज्ञानपूर्वक होता है। इस श्रुतज्ञानके अक्षरात्मक, अनराक्षरात्मक इस तरह अथवा शब्दजन्य और लिंगजन्य इस तरहसे दो भेद हैं, किन्तु इनमें शब्द जन्य श्रुतज्ञान मुख्य है।

Trans. 315. They call scriptural knowledge Śruta Jñāna the knowledge of another object, through an object (known by the sensitive knowledge). Of necessity (it is) preceded by sensitive knowledge. Here (knowledge) produced from words (is) primarily meant.

लोगाणमसंखमिदा अणक्खरण्णे हवन्ति छट्ठाणा ।

वेख्वच्छट्ठवग्ग पमाणं रूउणमक्खरणं ॥३१६॥

अर्थ- अनन्तभागवृद्धि, असंख्यातभागवृद्धि, संख्यातभागवृद्धि, संख्यातगुणवृद्धि, असंख्यातगुणवृद्धि, अनन्तगुणवृद्धि, इन षट्स्थानपतित वृद्धिकी अपेक्षासे पर्याय, पर्यायसमासरूप अनक्षरात्मक श्रुतज्ञानके सबसे जषन्य स्थानसे लेकर उत्कृष्ट स्थान पर्यन्त असंख्यात लोकप्रमाण भेद होते हैं। द्विरूपवर्गधारामें छट्टे वर्गका जितना प्रमाण है (एकट्ठी) उसमें एक कम करनेसे जितना प्रमाण बाकी रहे उतना ही अक्षरात्मक श्रुतज्ञानका प्रमाण है।

Trans. 316. In the non-verbal (Anakṣarātmaka scriptural knowledge there) are innumerable times the spatial units of universe places with 6 (fold increase). (The number of different individual letters) in the verbal (scriptural knowledge is) 6th term, of the square index series of 2 (Dvirūpa Varga Dhāra) minus one.

पज्जायक्खरपदसंघादं पडिवत्तियाणिजोगं च ।

दुगवारपाहुडं च य पाहुडयं वत्थु पुव्वं च ॥३१७॥

तेसिं च समासेहि य वीसविहं वा हु होदि सुदणाणं ।

आवरणस्स वि भेदा तत्तियमेत्ता हवन्ति त्ति ॥३१८॥

अर्थ- पर्याय, पर्यायसमास, अक्षर, अक्षरसमास, पद, पदसमास, संघात, संघातसमास, प्रतिपत्तिक, प्रतिपत्तिकसमास, अनुयोग, अनुयोगसमास, प्राभृत-प्राभृत, प्राभृत-प्राभृतसमास, प्राभृत, प्राभृतसमास, वस्तु, वस्तुसमास, पूर्व, पूर्वसमास, इस तरह श्रुतज्ञानके बीस भेद हैं। इसीलिये श्रुतज्ञानावरण कर्मके भी बीस भेद होते हैं किन्तु पर्यायावरण कर्मके विषयमें कुछ भेद हैं उसको आगेकी गाथामें कहेंगे।

Trans. 317-318. 1. Paryāya, 2. Akṣara, 3. Paḍa, 4. Saṁghāta, 5. Pratipattika, 6. Anuyoga, 7. Prābhṛta-Prābhṛta, 8. Prābhṛta, 9. Vastu, 10. Pūrva. Samāsa being added to each of these, there are 20 kinds of scriptural knowledge. (There) are also the same number i.e. 20 kinds of scriptural knowledge obscuring (Karma, Śrūta Jñānāvarṇīya-karma).

णवरि विसेसं जाणे सुहमजहणं तु पज्जयं णाणं ।
पज्जायावरणं पुण तदणंतर णाणभेदमिह ॥३१६॥

अर्थ- सूक्ष्म निगोदिया लब्ध्यपर्याप्तकके जो सबसे जघन्य ज्ञान होता है उसको पर्यायज्ञान कहते हैं। इसमें विशेषता केवल यही है कि इसके आवरण करने वाले कर्मके उदयका फल इसमें (पर्याय ज्ञानमें) नहीं होता; किन्तु इसके अनन्तर ज्ञानके (पर्यायसमास) प्रथमभेदमें ही होता है।

Trans. 319. Know the Paryāya knowledge to be the minimum (possessed by) a fine (completely undevelopable common soul, Nigoda). But the distinction (is that) Paryāya (knowledge) obscuring (karma begins to obscure) knowledge from the next degree.

सुहुमणिगोद अपज्जत्तयस्स जादस्स पढमसमयमिह ।
हवदि हु सव्वजहणं णिच्चुग्घाडं णिरावरणं ॥३२०॥

अर्थ- सूक्ष्म निगोदिया लब्ध्यपर्याप्तक जीवके उत्पन्न होनेके प्रथम समयमें सबसे जघन्य ज्ञान होता है। इसीको पर्याय ज्ञान कहते हैं। इतना ज्ञान हमेशा ही निरावरण तथा प्रकाशमान रहता है।

Trans. 320. (Paryāya knowledge) in the fine (completely) undevelopable common (soul, Nigoda) in the first instant of its birth is the lowest minimum, always open and unobscured.

सुहुमणिगोद अपज्जत्तगेसु सगसंभवेसु भमिऊण ।
चरिमापुण्णतिवक्काणादिम वक्कट्टियेव हवे ॥३२१॥

अर्थ- सूक्ष्म निगोदिया लब्ध्यपर्याप्तक जीवके अपने जितने भव (छह हजार बारह) सम्भव है उनमें भ्रमण करके अन्तके अपर्याप्त शरीरको तीन मोड़ोंके द्वारा ग्रहण करने वाले जीवके प्रथम मोड़ाके समयमें यह सर्व जघन्य ज्ञान होता है।

Trans. 321. (This Paryāya minimum, non-verbal, scriptural knowledge) is only in fine (completely) undevelopable common soul, (Nigoda) during the first turning, out of the three (maximum possible) turnings (in transmigration), to its last completely undevelopable (incarnation) after having been born in all its possible (mean births, 6012-minus this last one).

सुहुमणिगोद अपज्जत्तयस्स जादस्स पढमसमयमिह ।
फासिंदिय मदिपुव्वं सुदणाणं लब्धिअक्खरयं ॥३२२॥

अर्थ- सूक्ष्म निगोदिया लब्ध्यपर्याप्तक जीवके उत्पन्न होनेके प्रथम समयमें स्पर्शन इन्द्रियजन्य मतिज्ञानपूर्वक लब्ध्यक्षररूप श्रुतज्ञान होता है।

Trans. 322. In the fine (completely) undevelopable common (soul, Nigoda) in the first instant of its (moving towards the last) birth (there is) the minimum non-verbal (Labdhyakṣara i.e. the minimum knowledge because it is indestructible; Akṣara) destruction-subsidence (Kṣayopasama) of the Karmas which obscure the scriptural knowledge preceded by sensitive (knowledge) (by means of) sense of touch.

अवरुवरिम्मि अणंतमसंखं संखं च भागवट्ठीए ।
संखमसंखमणंतं गुणवट्ठी होति हु कमेण ॥३२३॥

अर्थ- सर्व जघन्य पर्यायज्ञानके ऊपर क्रमसे अनन्तभागवृद्धि, असंख्यातभागवृद्धि, संख्यातभागवृद्धि, संख्यातगुणवृद्धि, असंख्यातगुणवृद्धि, अनन्तगुणवृद्धि ये छह वृद्धि होती हैं।

Trans. 323. Above this minimum (paryāya) knowledge, (there) are certainly (6 stages) of increase, in succession, by infinite, innumerable and numerable part, and of increase by numerable, innumerable, and infinite fold.

जीवाणं च य रासी असंखलोगा वरं खु संखेज्जं ।
भागगुणम्हि य कमसो अवट्ठिदा होति छट्ठाणा ॥३२४॥

अर्थ- समस्त जीवराशि, असंख्यात लोकप्रमाण राशि, उत्कृष्ट संख्यात राशि ये तीन राशि पूर्वोक्त अनन्तभागवृद्धि आदि छह स्थानोंमें भागहार और गुणाकारके क्रमसे अवस्थित राशि हैं।

Trans. 324. The (infinite, the innumerable and the numerable) are certainly fixed as the number of all the souls, innumerable times spatial units of universe, and the maximum numerable, for the 6 stages of (increase) by part of times in succession.

उर्वकं चउरकं पणछस्सत्तकं अट्ठ अंकं च ।
छव्वट्ठीणं सण्णा कमसो संदिट्ठि करणट्ठं ॥३२५॥

अर्थ- लघुरूप संदृष्टिकेलिये क्रमसे छह वृद्धियोंकी ये छह संज्ञाएँ हैं। अनन्तभागवृद्धिकी उर्वक असंख्यातभागवृद्धिकी चतुरंक, संख्यातभागवृद्धिकी पंचांक, संख्यातगुणवृद्धिकी षडंक, असंख्यातगुणवृद्धिकी सप्तांक, अनन्तगुणवृद्धिकी अष्टांक।

Trans. 325. For exposition (in brief) the name of the 6 (stages of) increase respectively are the figure U (uru-much large, aṅka-figure)

			(Urvaṅka) ... fu.
The figure	4	...	(Caturaṅka) ... f4.
„	5	...	(pañcaṅka) ... f5.
„	6	...	(Ṣaṭṭaṅka) ... f6.
„	7	...	(Saptaṅka) ... f7.
„	8	...	(Aṣṭaṅka) ... f8.

अंगुलअसंखभागे पुव्वग वट्ठीगदे दु परवट्ठी ।
एक्कं वारं होदि हु पुणो पुणो चरिम उट्ठित्ति ॥३२६॥

अर्थ- सूच्यंगुलके असंख्यातवे भाग प्रमाण पूर्ववृद्धि हो जाने पर एक बार उत्तर वृद्धि होती है। यह नियम अंतकी वृद्धि पर्यन्त समझना चाहिये।

Trans. 326. The preceding increase having been repeated (as many times as there are spatial units) in an innumerable part of a (linear) finger, the next increase takes place one times. Certainly this is done again and again till the last increase. (i.e. every one of 6 increases is repeated an innumerable part of a linear finger before the next one is taken).

आदिमछट्ठाणम्हि य पंच य वट्ठी हवन्ति सेसेसु ।
छव्वट्ठीओ होति हु सरिसा सवत्थ पदसंखा ॥३२७॥

अर्थ- असंख्यात लोकप्रमाण षट्स्थानोंमें से प्रथम षट्स्थानमें ही पाँच ही वृद्धि होती हैं; अष्टांक वृद्धि नहीं होती। शेष सम्पूर्ण षट्स्थानोंमें अष्टांकसहित छहों वृद्धि होती हैं। सूच्यंगुलका असंख्यातवाँ भाग अवस्थित है, इसलिये पदोंकी संख्या सब जगह सदृश ही समझनी चाहिये।

Trans. 327. (The six-fold increases take place innumerable times of the innumerable spatial units of the universe), in the first of the six fold increases, there are 5 increases only. In the remaining (there) are 6 increases. The number of (Pada equal to spatial units in an innumerable, which is part of a linear finger) is the same everywhere.

छट्टाणाणं आदी अट्ठकं होदि चरिममुव्वकं ।

जह्मा जहण्ण णाणं अट्ठकं होदि जिणदिट्ठं ॥३२८॥

अर्थ- सम्पूर्ण षट्स्थानोंमें आदिके स्थानको अष्टांक और अन्तके स्थानको उर्वक कहते हैं क्योंकि जघन्य पर्यायज्ञान भी अगुरुलघुगुणके अविभाग प्रतिच्छेदोंकी अपेक्षा अष्टांक प्रमाण होता है, ऐसा जिनेन्द्रदेवने प्रत्यक्ष देखा है।

Trans. 328. In all the 6 places (series) the first (number in the first place) is (the last of the last places of series i.e., infinite fold increase (Ananta-guṇa-vṛddhi, i.e.), the figure 8 (Aṣṭāṅka). And the last is (infinite part increase) (Ananta bhāga vṛddhi, the figure U (urvaṅka). The minimum knowledge (Paryāya Jñāna) is also the figure 8 (Aṣṭāṅka, i.e., infinite fold) as the omniscient has seen.

एकं खलु अट्ठकं सत्तकं कंडयं तदो हेट्ठा ।

रुवहियकंडएण य गुणिदकमा जाव मुव्वकं ॥३२९॥

अर्थ- एक षट्स्थानमें एक अष्टांक होता है और सप्तांक अर्थात् असंख्यातगुणवृद्धि, काण्डक-सूच्यंगुलके असंख्यातवें भाग प्रमाण हुआ करती है। इसके नीचे षडंक अर्थात् संख्यातगुणवृद्धि और पंचांक अर्थात् संख्यातभागवृद्धि तथा चतुरंक-असंख्यातभागवृद्धि एवं उर्वक अनंतभागवृद्धि ये चार वृद्धियाँ उत्तरोत्तर क्रमसे एक अधिक सूच्यंगुलके असंख्यातवें भागसे गुणित हैं।

Trans. 329. The figure 8 (i.e., infinite fold increase) (Ananta-guṇa vṛddhi) (occurs only) once (in a six-fold series), the figure 7 (i.e., innumerable fold increase (Asaṁkhyāta guṇa vṛddhi occurs a) Kāṇḍaka (times i.e. as many times as the linear finger (Sūcyāṅgula) is divided by innumerable). Descending (we go) up to the figure U (Urvaṅka i.e., increase by infinite part Ananta-bhāga-vṛddhi). (The number of their occurrence will be, obtained by multiplying each with a (Kāṇḍaka plus one).

सव्वसमासो णियमा रुवाहिय कंडयस्स वग्गस्स ।

विंदस्स य संवग्गो होदि ति जिणेहिं णिदिट्ठं ॥३३०॥

अर्थ- एक अधिक काण्डकके वर्ग और घनको परस्पर गुणा करनेसे जो प्रमाण लब्ध आवे उतना ही एक षट्स्थानपतित वृद्धियोंके प्रमाणका जोड़ है, ऐसा जिनेन्द्रदेवने कहा है।

Trans. 330. The square of Kāṇḍaka plus one multiplied by the cube of (Kāṇḍaka plus one) is the total number (of all the increases in one set of 6 fold increase). So it has been said by the Conquerors (Jinas).

उक्कस्ससंखमेत्तं तत्तिचउत्थेक्क दाल छप्पण्णं ।

सत्त दसमं च भागं गंतूण य लद्धि अक्खरं दुगुणं ॥३३१॥

अर्थ- एक अधिक काण्डकसे गुणित सूच्यंगुलके असंख्यातवें भाग प्रमाण अनन्तभागवृद्धि के स्थान और सूच्यंगुलके असंख्यातवें भागप्रमाण असंख्यातवृद्धिके स्थान, इन दो वृद्धियोंको जघन्य ज्ञानके ऊपर हो जाने पर एक बार संख्यातभागवृद्धिका स्थान होता है। इसके आगे उक्त क्रमानुसार उत्कृष्ट संख्यातमात्र संख्यातभागवृद्धियोंके हो जाने पर उसमें प्रक्षेपक वृद्धिके होनेसे लब्ध्यक्षरका प्रमाण दूना हो जाता है परन्तु प्रक्षेपककी वृद्धि कहाँ-कहाँ पर कितनी-कितनी होती है यह बताते हैं। उत्कृष्ट संख्यातमात्र पूर्वोक्त संख्यातभागवृद्धिके स्थानोंमें से तीन-चौथाई भागप्रमाण स्थानोंके हो जानेपर प्रक्षेपक और प्रक्षेपक-प्रक्षेपक इन दो वृद्धियोंको जघन्य ज्ञानके ऊपर हो जानेसे लब्ध्यक्षरका प्रमाण दूना हो जाता है। पूर्वोक्त संख्यातभागवृद्धियुक्त उत्कृष्ट संख्यातमात्रस्थानोंके छप्पन भागोंमेंसे इकतालीस भागोंके बीत जानेपर प्रक्षेपक और प्रक्षेपक-प्रक्षेपककी वृद्धि होनेसे साधिक (कुछ अधिक) जघन्यका दूना प्रमाण हो जाता है अथवा संख्यातभागवृद्धिके उत्कृष्ट संख्यातमात्र स्थानोंमेंसे दशभागमें सातभाग प्रमाण स्थानोंके अनन्तर प्रक्षेपक प्रक्षेपक-प्रक्षेपकके तथा पिशुली इन तीन वृद्धियोंको साधिक जघन्यके ऊपर करनेसे साधिक जघन्यका प्रमाण दूना होता है।

Trans. 331. The minimum non-verbal knowledge (i.e., Paryāya or Labdhyakṣara Jñāna becomes) double when three-fourths or 41 out of 56, or 7 out of 10, of the number of maximum numerable steps, have been worked out (in the process of numerable part increase).

एवं असंखलोगा अणक्खरप्पे हवन्ति छट्ठाणा ।
ते पज्जाय समासा अक्खरगं उवरि वोच्छामि ॥३३२॥

अर्थ- इस प्रकार अनक्षरात्मक श्रुतज्ञानमें असंख्यात लोकप्रमाण षट्स्थान होते हैं। ये सब ही पर्यायसमास ज्ञानके भेद हैं। अब इसके आगे अक्षरात्मक श्रुतज्ञानका वर्णन करेंगे।

Trans. 332. Thus the six-fold increase in the non-verbal (Anakṣarātmaka scriptural knowledge) are (innumerable by innumerable spatial units of) universe. All (these are) the (kinds of irreducible class of scriptural knowledge) or (Paryāya-Samāsa or Paryāya series). After this I shall describe the verbal scriptural knowledge (Akṣarātmaka Śruta Jñāna).

चरिमुव्वंकेण वहिद अत्थक्खर गुणिद चरिमुव्वंके ।
अत्थक्खरं तु णाणं होदि त्ति जिणेहिं णिदिद्वं ॥३३३॥

अर्थ- अन्तके उर्वकका अर्थाक्षरसमूहमें भाग देनेसे जो लब्ध आवे उसको अन्तके उर्वकसे गुणा करनेपर अर्थाक्षर ज्ञानका प्रमाण होता है ऐसा जिनेन्द्रदेवने कहा है।

Trans. 333. Verbal scriptural knowledge (Arthākṣara) divided (by what is got) after the last U, multiplied by (what is got) after the last U, is the verbal scriptural knowledge. This is said by the Conquerors.

पण्णवणिज्जा भावा अणंतभागो दु अणभिलप्पाणं ।
पण्णवणिज्जाणं पुण अणंतभागो सुदणिबद्धो ॥३३४॥

अर्थ- अनभिलप्य पदार्थोंके अनन्तवें भाग प्रमाण प्रज्ञापनीय पदार्थ होते हैं और प्रज्ञापनीय पदार्थोंके अनन्तवें भाग प्रमाण श्रुतमें निबद्ध हैं।

Trans. 334. Expressible matters. (i.e., the total of knowledge as expressed by the Adorable (Arahanta) himself in His enlightened Voice, Divyadhvani or letterless speech, Anakṣarāvānī) is an infinite part of inexpressible (matter, i.e., the total of all what is known to the omniscient). And only an infinite part of expressible (matter) can be digested as scriptural (knowledge).

एयक्खरादु उवरि एगेगेणक्खरेण वहुंतो ।
संखेज्जे खलु उहे पदणामं होदि सुदणाणं ॥३३५॥

अर्थ- अक्षर ज्ञानके ऊपर क्रमसे एक-एक अक्षरकी वृद्धि होते-होते जब संख्यात अक्षरोंकी वृद्धि हो जाये तब पदनामक श्रुतज्ञान होता है। अक्षर ज्ञानके ऊपर और पदज्ञानके पूर्व तक जितने ज्ञानके विकल्प हैं वे सब अक्षरसमास ज्ञानके भेद हैं।

Trans. 335. One letter (knowledge) increasing up to numerable (letters) the increase of letters being one by one, constitutes the scriptural knowledge named 'foot' (Pada).

सोलस सय चउतीसा कोडी तियसीदि लक्खयं चेव ।
सत्तसहस्साड्ढ सया अट्ठासीदी य पदवण्णा ॥३३६॥

अर्थ- सोलह सौ चौतीस कोटि, तिरासी लाख, सात हजार, आठसौ अठासी (१६३४८३०७८८८) एक पदमें अक्षर होते हैं।

Trans. 336. The letters (Varṇa-Akṣara) of a foot or (Pada) are (1634, 83, 07, 888) sixteen hundred thirty-four crores, eighty-three lacs and seven thousand eight hundred and eighty-eight.

एयपदादो उवरिं एगेगेणक्खरेण वड्ढंतो ।
संखेज्ज सहस्सपदे उट्ठे संघादणाम सुदं ॥३३७॥

अर्थ- एक पदके आगे भी क्रमसे एक-एक अक्षरकी वृद्धि होते-होते संख्यात हजार पदोंकी वृद्धि हो जाये उसको संघात नामक श्रुतज्ञान कहते हैं। एक पदके ऊपर और संघात नामक ज्ञानके पूर्व जितने ज्ञानके भेद हैं वे सब पदसमासके भेद हैं। यह संघात नामक श्रुतज्ञान चार गतिमें से एक गतिके स्वरूपका निरूपण करने वाले अपुनरुक्त मध्यम पदोंके समूहसे उत्पन्न अर्थज्ञानरूप है।

Trans. 337. One foot (pada), increasing upto numerable thousand (Padas), the increase of letters being one by one, constitutes (the division) of scriptural (knowledge) named "Saṃghāta."

एक्कदरगदिणिखवय संघादसुदादु उवरि पुव्वं वा ।
वण्णे संखेज्जे संघादे उट्ठमि पडिवत्ती ॥३३८॥

अर्थ- चार गतिमें से एक गतिका निरूपण करने वाले संघात श्रुतज्ञानके ऊपर पूर्वकी तरह क्रमसे एक-एक अक्षरकी तथा पदों और संघातोंकी वृद्धि होते-होते जब संख्यात हजार संघातकी वृद्धि हो जाये तब एक प्रतिपत्ति नामक श्रुतज्ञान होता है। संघात और प्रतिपत्ति श्रुतज्ञानके मध्यमें जितने ज्ञानके विकल्प हैं उतने ही संघातसमासके भेद हैं। यह ज्ञान नरकादि चार गतियोंका विस्तृत स्वरूप जानने वाला है।

Trans. 338. Beyond the division (Saṃghāta) scriptural (knowledge, (containing) description of one of the four conditions of existence (letters being added one by one) as before up to the number of numerable thousand (Saṃghāta) (divisions), (we have) Pratipatti "part" (scriptural knowledge).

चउगइसरुवखवय पडिवत्तीदो दु उवरि पुव्वं वा ।
वण्णे संखेज्जे पडिवत्ती उट्ठमि अणियोगं ॥३३९॥

अर्थ- चारों गतियोंके स्वरूपका निरूपण करने वाले प्रतिपत्ति ज्ञानके ऊपर क्रमसे पूर्वकी तरह एक-एक अक्षरकी वृद्धि होते-होते जब संख्यात हजार प्रतिपत्तिकी वृद्धि हो जाय तब एक अनुयोग श्रुतज्ञान होता है। इसके पहले और प्रतिपत्ति ज्ञानके ऊपर सम्पूर्ण प्रतिपत्तिसमास ज्ञानके भेद हैं। अन्तिम प्रतिपत्तिसमासज्ञानके भेदमें एक अक्षरकी वृद्धि होनेसे अनुयोग श्रुतज्ञान होता है। इस ज्ञानके द्वारा चौदह मार्गणाओंका विस्तृत स्वरूप जाना जाता है।

Trans. 339. "Pratipatti" (scriptural knowledge) describing the character of the four conditions of existence letters being added, (one by one) as before, up to the number, of numerable thousands (Pratipatti), we have "Anuyoga" (scriptural knowledge).

चोदसमग्गणसंजुद अणियोगादुवरि वड्ढिदे वण्णे ।
चउरादी अणियोगे दुगवारं पाहुडं होदि ॥३४०॥

अर्थ- चौदह मार्गणाओंका निरूपण करने वाले अनुयोग ज्ञानके ऊपर पूर्वोक्त क्रमके अनुसार एक-एक अक्षरकी वृद्धि होते-होते जब चतुरादि अनुयोगोंकी वृद्धि हो जाये तब प्राभृतक-प्राभृतक श्रुतज्ञान होता है। इसके पहले और अनुयोग ज्ञानके ऊपर जितने ज्ञानके विकल्प हैं वे सब अनुयोग समासके भेद जानना।

Trans. 340. "Beyond" Anuyoga (scriptural knowledge) containing 14 soul-quests (Mārgaṇā) letters being added (one by one as before) upto the four and other Anuyogas, (we have) "Prābhṛta-Prābhṛta" (scriptural knowledge).

अहियारो पाहुडयं एयट्ठो पाहुडस्स अहियारो ।
पाहुडपाहुडणामं होदित्ति जिणेहिं णिदिट्ठं ॥३४१॥

अर्थ- प्राभृत और अधिकार ये दोनों शब्द एक ही अर्थके वाचक हैं। अतएव प्राभृतके अधिकारको प्राभृतप्राभृत कहते हैं, ऐसा जिनेन्द्र देवने कहा है।

Trans. 341. Adhikāra and Prābhṛta (are) synonymous, Adhikāra of Prābhṛta is named Prābhṛta-Prābhṛta, it has been said by the Conquerors.

दुगवार पाहुडादो उवरिं वण्णे कमेण चउवीसे ।

दुगवारपाहुडे संउहे खलु होदि पाहुडयं ॥३४२॥

अर्थ- प्राभृतप्राभृत ज्ञानके ऊपर पूर्वोक्त क्रमसे एक-एक अक्षरकी वृद्धि होते-होते जब चौबीस प्राभृत-प्राभृतकी वृद्धि हो जाये तब एक प्राभृतक श्रुतज्ञान होता है। प्राभृतके पहले और प्राभृत-प्राभृतके ऊपर जितने ज्ञानके विकल्प हैं वे सब ही प्राभृत-प्राभृतसमासके भेद जानना। उत्कृष्ट प्राभृत-प्राभृत समासके भेदमें एक अक्षरकी वृद्धि होनेसे प्राभृत ज्ञान होता है।

Trans. 342. Beyond Prābhṛta Prābhṛta (scriptural knowledge) letters (being added) successively (as before), up to 24 Prābhṛta-Prābhṛta, (there) is the "Prābhṛta."

वीसं वीसं पाहुड अहियारे एक्कवत्थु अहियारो ।

एक्केक्क वण्णउट्ठी कमेण सव्वत्थ णायव्वा ॥३४३॥

अर्थ- पूर्वोक्त क्रमानुसार प्राभृत ज्ञानके ऊपर एक-एक अक्षरकी वृद्धि होते-होते जब क्रमसे बीस प्राभृतकी वृद्धि हो जाये तब एक वस्तु अधिकार पूर्ण होता है। वस्तुज्ञानके पहले और प्राभृतज्ञानके ऊपर जितने विकल्प हैं वे सब प्राभृतसमास ज्ञानके भेद हैं। उत्कृष्ट प्राभृतसमासमें एक अक्षरकी वृद्धि होनेसे वस्तु नामक श्रुतज्ञान पूर्ण होता है।

Trans. 343. Each chapter (Adhikāra) of 20 Prābhṛtas (makes) one Vastu Adhikāra. Successive increase by one letter, should be known (to take place) everywhere.

दस चोदसह अट्टारसयं वारं च वार सोलं च ।

वीसं तीसं पण्णारसं च दस चदुसु वत्थूणं ॥३४४॥

अर्थ- पूर्व ज्ञानके चौदह भेद हैं जिनमें से प्रत्येकमें क्रमसे दश, चौदह, आठ, अटारह, बारह, बारह, सालह, बीस, तीस, पन्द्रह, दश, दश, दश, दश वस्तु नामक अधिकार हैं।

Trans. 344. Ten, fourteen, eight, eighteen, twelve, twelve, sixteen, twenty, thirty, fifteen, ten in 4 each, (are the number of) vastus (in the 14 Pūrvas).

उप्पायपुव्वगाणिय विरियपवादत्थि णत्थि य पवादे ।

णाणासच्चपवादे आदाकम्मपवादे य ॥३४५॥

पच्चक्खाणे विज्जाणुवाद कल्लाणपाणवादे य ।

किरियाविसालपुव्वे कमसोथ तिलोयविंदुसारे य ॥३४६॥

अर्थ- उत्पादपूर्व, आग्रायणीयपूर्व, वीर्यप्रवाद, अस्तिनास्तिप्रवाद, ज्ञानप्रवाद, सत्यप्रवाद, आत्मप्रवाद, कर्मप्रवाद, प्रत्याख्यान, वीर्यानुवाद, कल्याणवाद, प्राणवाद, क्रियाविशाल त्रिलोकबिन्दुसार इस तरहसे ये क्रमसे पूर्वज्ञानके चौदह भेद हैं।

Trans. 345-346. Utpāda Pūrva, Agrāyaṇīya, Vīrya-Pravāda, Asti-nāsti-Pravāda, Jñāna Pravāda, Satya-Pravāda, Ātma-Pravāda, Karma-Pravāda, Pratyākhyāna, Vīryānuvāda, Kalyāṇa-vāda, Prāṇa-vāda, Kriyā-viśāla, and Triloka-vindu-sāra (are 11) Pūrvas, respectively, (corresponding to the 14 sets of vastus in gāthā 344).

पण्णउदिसया वत्थू पाहुडया तियसहस्स णवयसया ।

एदेसु चोदसेसु वि पुव्वेसु हवन्ति मिलिदाणि ॥३४७॥

अर्थ- इन चौदह पूर्वोक्त सम्पूर्ण वस्तुओंका जोड़ एक सौ पंचानवे (१६५) होता है और एक-एक वस्तुमें बीस-बीस प्राभृत होते हैं, इसलिये सम्पूर्ण प्राभृतोंका प्रमाण तीन हजार नौ सौ (३६००) होता है।

Trans. 347. And in these 14 Pūrvas taken together (there) are 195 vastus and 3900 Prābhṛtas.

अथक्खरं च पदसंघादं पडिवत्तियाणिजोगं च ।
दुगवारपाहुडं च य पाहुडयं वत्थु पुव्वं च ॥३४८॥
कमवण्णुत्तरवट्ठिय ताण समासा य अक्खरगदाणि ।
णाणवियप्पे वीसं गंथे बारस य चोदसयं ॥३४९॥

अर्थ- अर्थाक्षरं, पद, संघात, प्रतिपत्तिक, अनुयोग, प्राभृतप्राभृत, प्राभृत, वस्तु, पूर्व, ये नव तथा क्रमसे एक-एक अक्षरकी वृद्धिके द्वारा उत्पन्न होने वाले अक्षरसमास आदि नव इस तरह अठारह भेद द्रव्यश्रुतके होते हैं। पर्याय और पर्यायसमासके मिलानेसे बीस भेद ज्ञानरूप श्रुतके होते हैं। यदि ग्रन्थरूप श्रुतकी विवक्षा की जाये तो आचारांग आदि बारह और उत्पादपूर्व आदि चौदह भेद होते हैं।

Trans. 348-349. Arthākṣara, Pada, Saṁghāta, Pratipattika, Anuyoga, Prābhṛta-Prābhṛta, Prābhṛta, Vastu and Pūrva. These with their respective classes (Samāsa) (produced) by successively adding a letter, (from the 18 divisions of) verbal scriptural knowledge, (And these eighteen with the two, Paryāya and Paryāya class (samāsa) make the, 20 divisions of (scriptural) knowledge. (Reduced) to the form of books (scriptural knowledge consists of) 12 āṅgas and 14 (Pūrvas) and (14 Prakīrṇakas).

बारुत्तरसयकोडी तेसीदी तह य होति लक्खाणं ।
अट्ठावण्णसहस्सा पंचेव पदाणि अंगाणं ॥३५०॥

अर्थ- द्वादशांगके समस्त पद एक सौ बारह करोड़ तेरासी लाख अट्ठावन हजार पाँच (११२८३५८००५) होते हैं।

Trans. 350. (The total number of middle) feet in the Āṅgas is one hundred twelve crores, eighty-three lacs, fifty-eight thousands and five, (112, 83, 58005).

अडकोडि एयलक्खा अट्ठसहस्सा य एयसदिगं च ।
पण्णत्तरि वण्णाओ पडण्णयाणं पमाणं तु ॥३५१॥

अर्थ- आठ करोड़, एक लाख, आठ हजार, एक सौ पचहत्तर (८०१०८१७५) प्रकीर्णक (अंगबाह्य) अक्षरोंका प्रमाण है।

Trans. 351. (The total) number of (unrepeated) letters in the (14) Prakīrṇakas is eight crores, one lac, eight thousand one hundred and seventy-five, (8, 01, 08, 175).

तेत्तीस वेंजणाइं सत्तावीसा सरा तहा भणिया ।
चत्तारि य जोगवहा चउसट्ठी मूलवण्णाओ ॥३५२॥

अर्थ- तेतीस व्यंजन, सत्ताईस स्वर, चार योगवाह इस तरह कुल चौंसठ मूलवर्ण होते हैं।

Trans. 352. Thirty-three consonants (Vyañjana), 27 Vowel sounds (i.e. slight, hr̥sva; long, Dīrgha; prolonged, Pluta; of each of the 9 vowels, a (v), i (b), u (m), ri (h), lri (y↑), e (.), ai (s), o (vks), au (vkS), and 4 mixed sounds (Yogavāha) i.e. Anusvāra (-). Visarga (:), the guttural sound formed at the roof of the tongue (Jihvā-mūliya) i.e. the visarga or ḥ (;) before K(d) and Kh([k]), and the aspirate visarga ḥ(:) before P (i) and Ph (Q), formed by the lips, therefore called Upadhmāniya from Upadhmānas (lip)-are the 64 root-letters or representations of sounds (Mūla-Vaṇṇa).

चउसट्ठिपदं विरलिय दुगं च दाउण संगुणं किच्चा ।
रूऊणं च कए पुण सुदणाणस्सक्खरा होति ॥३५३॥

अर्थ- उक्त चौंसठ अक्षरोंका विरलन करके प्रत्येकके ऊपर दो अंक देकर परस्पर सम्पूर्ण दोके अंकोंका गुणा करनेसे लब्ध राशिमें एक घटा देनेपर जो प्रमाण रहता है उतने ही श्रुतज्ञानके अपुनरुक्त अक्षर होते हैं।

Trans. 353. Having distributed the 64 letters (i.e. having put down figure 1 in 64 places) and placing 2 (on every one) (then) multiplying (all the twos) with each other (i.e. raising two to the power of sixty four, 2^{64}), and subtracting 1, (from it) we find (the total number of) the letters of Scriptural knowledge.

एकद्व च च य छस्सत्तयं च च य सुण्ण सत्त तियसत्ता ।

सुण्णं णव पण पंच य एकं छक्केकगो य पणं च ॥३५४॥

अर्थ- परस्पर गुणा करनेसे उत्पन्न होनेवाले अक्षरोंका प्रमाण इस प्रकार एक, आठ, चार, चार, छह, सात, चार, चार, शून्य, सात, तीन, सात, शून्य, नव, पाँच, पाँच, एक, छह, एक, पाँच ।

Trans. 354. One, eight, four, four, six, seven, four, four, zero, seven, three, seven, zero, nine, five, five, one, six, one, and five.- (i.e. 1, 84, 46, 74, 40, 73, 70, 95, 51, 615 = $(2^{64} - 1)$ = (Ekatthī - 1) is the total number of letters and their unrepeated combinations).

मज्झिम पदक्खर वहिद वण्णा ते अंग पुव्वग पदाणि ।

सेसक्खर संखा ओ पइण्णयाणं पमाणं तु ॥३५५॥

अर्थ- मध्यमपदके अक्षरोंका जो प्रमाण है उसका समस्त अक्षरोंके प्रमाणमें भाग देनेसे जो लब्ध आवे उतने अंग और पूर्वगत मध्यम पद होते हैं । शेष जितने अक्षर रहें उतना अंगबाह्य अक्षरोंका प्रमाण है ।

Trans. 355. (The total of these) letters divided by (the number of) letters in a middle foot (Madhyama pada) is (the total number of middle) feet (Madhyama-padas) in the (Aṅgas and Pūrvas.) And 0 (pupil)! (the number of) the remaining letters is the number (of letters) in the (fourteen) (Prakīrṇakas).

आयारे सुदयडे ठाणे समवाय णामगे अंगे ।

तत्तो विक्खापण्णत्तीए णाहस्स धम्मकहा ॥३५६॥

तो वासय अज्झयणे अंतयडे णुत्तरोववाददसे ।

पण्हाणं वायरणे विवायसुत्ते य पदसंखा ॥३५७॥

अट्टारस छत्तीसं वादालं अडकदी अड वि छप्पणं ।

सत्तरि अट्ठावीसं चउदालं सोलस सहस्सा ॥३५८॥

इगिदुगपंचेयारं तिवीस दुत्तिणउदि लक्ख तुरियादी ।

चुलसीदि लक्खमेया कोडी य विवाग सुत्तम्हि ॥३५९॥

अर्थ- आचारांग, सूत्रकृतांग, स्थानांग, समवायांग, व्याख्याप्रज्ञप्ति, धर्मकथांग, उपासकाध्ययनांग, अन्तःकृद्दशांग, अनुत्तरोपपादिकदशांग, प्रश्नव्याकरण और विपाकसूत्र इन ग्यारह अंगोंके पदोंकी संख्या क्रमसे निम्नलिखित है ।

आचारांगमें अठारह हजार पद हैं, सूत्रकृतांगमें छत्तीस हजार, स्थानांगमें बयालीस हजार, समवायांगमें एक लाख चौंसठ हजार, व्याख्याप्रज्ञप्तिमें दो लाख अट्ठाईस हजार, धर्मकथांगमें पाँच लाख छप्पन हजार, उपासकाध्ययनांगमें ग्यारह लाख सत्तर हजार, अन्तःकृद्दशांगमें तेईस लाख अट्ठाईस हजार, अनुत्तरोपपादिक दशांगमें बानवे लाख चवालीस हजार, प्रश्नव्याकरण अंगमें तिरानवे लाख सोलह हजार पद हैं । तथा ग्यारहवें विपाकसूत्र अंगमें एक करोड़ चौरासी लाख पद हैं ।

Trans. 356-357-358-359. In (Ācārāṅga). (Sūtra-kṛtāṅga, Sthānāṅga, Samavāyāṅga, Vyākhyāprajñapti, Dharma-kathāṅga, Upāsakā-dhyanāṅga, Antaḥ-kṛddāśāṅga. Anuttaraupapādika-dāśāṅga, Praśna-Vyākaraṇa, and Vipāka Sūtra.) the number of middle feet (Padas respectively, is) eighteen, thirty-six, forty-two, square of eight, twenty-eight, fifty-six, seventy, twenty-eight, forty-four (and) sixteen thousands, and one, two, five, eleven, twenty-three, ninety-two, ninety-three lacs are to be added in the fourth and the following. (They are) eighty-four lacs and one crore in Vipāka-sūtra.

वापणनरनोननं एयारंगे जुदी हु वादम्हि ।
कनजतजमताननमं जनकनजयसीम बाहिरे वण्णा ॥३६०॥

अर्थ- पूर्वोक्त ग्यारह अंगोंके पदोंका जोड़ चार करोड़ पन्द्रह लाख दो हजार (४१५०२०००) होता है। बारहवें दृष्टिवाद अंगमें सम्पूर्ण पद एक अरब, आठ करोड़, अड़सठ लाख, छप्पन हजार, पाँच (१०८६८५६००५) होते हैं अंगबाह्य अक्षरोंका प्रमाण आठ करोड़, एक लाख, आठ हजार, एक सौ पचहत्तर (८०१०८१७५) है।

Trans. 360. (The figures of) total number (of feet, Pada) in the eleven Aṅgas (are) 415, 020, 00. And in the (Dṛṣṭi) Vāda (i.e. Dṛṣṭi Pravāda), the 12th Aṅga it is 108,685, 005. And in the (non-aṅga) (scriptures i.e. 14 Prakīrṇākas of (Aṅgā Vāhya) the (total number of) letters (is) 80, 108, 175.

चंद-रवि-जंबुदीवय समुद्रयवियाह पण्णत्ती ।
परियम्मं पंचविहं सुत्तं पढमाणिजोग मदो ॥३६१॥
पुव्वं जल-थल-माया आगासय ख्वगयमिमा पंच ।
भेदा हु चूलियाए तेसु पमाणं इणं कमसो ॥३६२॥

अर्थ- बारहवें दृष्टिवाद अंगके पाँच भेद हैं- परिकर्म, सूत्र, प्रथमानुयोग, पूर्वगत, चूलिका। इसमें परिकर्मके पाँच भेद हैं। चन्द्रप्रज्ञप्ति, सूर्यप्रज्ञप्ति, जम्बूद्वीपप्रज्ञप्ति, द्वीपसागरप्रज्ञप्ति, व्याख्याप्रज्ञप्ति।

सूत्रका अर्थ सूचित करने वाला है। इस भेदमें जीव अबंधक ही है, अकर्ता ही है, निर्गुण ही है, अभोक्ता ही है, स्वप्रकाशक ही है, पाप्रकाशक ही है, अस्तिरूप ही है, नास्तिरूप ही है, इत्यादि क्रियावाद अक्रियावाद, अज्ञान, विनयरूप, ३६३ मिथ्यामतोंको पूर्वपक्षमें रखकर दिखाया गया है। प्रथमानुयोगका अर्थ है कि प्रथम अर्थात् मिथ्यादृष्टि या अव्रतिक अव्युत्पन्न श्रोताको लक्ष्य करके जो प्रवृत्त हो। इसमें ६३ शलाका पुरुषों आदिका वर्णन किया गया है। पूर्वगतके चौदह भेद हैं, जिनका वर्णन आगे करेंगे। चूलिका के पाँच भेद हैं; जलगता, स्थलगता, मायागता, आकाशगता, रूपगता। अब इनके पदोंका प्रमाण क्रमसे बताते हैं।

Trans. 361-362. (The twelfth aṅga consists of) 5 kinds of Parikarma. Candra-prajñapti, Sūrya-prajñapti, Jambūdīvīpa-prajñapti, Dvīpa-Samudra-prajñapti, Vyākhyā prajñapti; (one) Sūtra (one) Prathamānuyoga; (14) (Pūrvas, and the five kinds of Cūlikā; Jala-gatā, Sthala-gatā Māyā-gatā, Ākāśagatā, Rūpa-gatā. The number of these (is given below) in their order.

गतनम मनगं गोरम मरगत जवगतात नोननं जजलक्खा ।
मननन धममननोनननामं रनधजधरानन जलादी ॥३६३॥
याजकनामेनाननमेदाणि पदाणि होंति परिकम्मे ।
कानवधिवाचनानमेसो पुण चूलियाजोगो ॥३६४॥

अर्थ- क्रमसे चन्द्रप्रज्ञप्तिमें छत्तीस लाख पाँच हजार, सूर्यप्रज्ञप्तिमें पाँच लाख तीन हजार, जम्बूद्वीपप्रज्ञप्तिमें तीन लाख पच्चीस हजार, द्वीपसागर प्रज्ञप्तिमें बावन लाख छत्तीस हजार, व्याख्याप्रज्ञप्तिमें चौरासी लाख छत्तीस हजार पद हैं। सूत्रमें अठासी लाख पद हैं। प्रथमानुयोगमें पाँच हजार पद हैं। चौदह पूर्वोंमें पंचानवें करोड़ पचास लाख पाँच पद हैं। पाँचों चूलिकाओंमेंसे प्रत्येकमें दो करोड़ नौ लाख नवासी हजार दो सौ पद हैं। चन्द्रप्रज्ञप्ति आदि पाँच प्रकारके परिकर्मके पदोंका जोड़ एक करोड़, इक्यासी लाख, पाँच हजार है। पाँच प्रकारकी चूलिकाके पदोंका जोड़ दश करोड़ उनचास लाख छ्यालीस हजार (१०४६४६०००) है।

Trans. 363-364. 36,05,000; 5,03,000; 3,25,000; 52,36,000; 84,36,000; 88,00,000; 5,000; 95,50,00,005; and 20,989,200, in each of the (5 cūlikās) Jala-gatā etc; and 1,810,5000 is (the total of) feet, in. Parikarma, and 10,49,46,000 is the total of (feet in cūlikas).

पण्णद्धदाल पणतीस तीस पण्णासपण्ण तेरसदं ।
 गणउदी दुदाल पुव्वे पणवण्णा तेरससयाइं ॥३६५॥
 छस्सयपण्णासाइं चउसयपण्णास छसयपणुवीसा ।
 विहि लक्खेहि दु गुणिया पंचम रूऊण छज्जुदा छट्ठे ॥३६६॥

अर्थ- दोनों गाथाओंमें उत्पादपूर्व आदि १४ पूर्वोंकी बताई गई संख्याको दो लाखसे गुणा करना चाहिये। विशेष यह है कि इस तरहसे गुणित करने पर जो संख्या उत्पन्न हो उनमेंसे पाँचवें पूर्वकी संख्या निकालनेके लिए एक कम कर देना चाहिये और छट्ठे पूर्वका प्रमाण जानने के लिये छह जोड़ देना चाहिये। ऐसा करनेसे पूर्वोंका नियत प्रमाण निकल आता है। दो लाखसे गुणा जिस-जिस संख्याके साथ करना चाहिये। वह उत्पादपूर्वादिकी गाथोक्त संख्या क्रमसे इस प्रकार है-

उत्पादपूर्वकी ५०, आग्रायणीय ४८, वीर्यप्रवाद ३५, अस्तिनास्तिप्रवाद ३०, ज्ञानप्रवाद ५०, सत्यप्रवाद ५०, आत्मप्रवाद १३००, कर्मप्रवाद ६०, प्रत्याख्यान ४२, विद्यानुवाद ५५, कल्याणवाद १३००, प्राणवाद ६५०, क्रियाविशाल ४५०, त्रिलोकबिन्दुसार ६२५।

Trans. 365-366. (The middle feet in the 14) Pūrvas (respectively are), fifty, forty-eight, thirty-five, thirty, fifty, fifty, thirteen hundred, ninety, forty-two, fifty-five, thirteen hundred, six hundred fifty, four hundred fifty, six hundred-twenty-five, each multiplied by two lacs; and subtract one from the fifth; and add six to the sixth.

सामइय चउवीसत्थयं तदो वंदणा पडिक्कमणं ।
 वेणइयं किदियम्मं दसवेयालं च उत्तरज्झयणं ॥३६७॥
 कप्पववहारकप्पा कप्पियमहकप्पियं च पुंडरियं ।
 महपुंडरीय णिसिहियमिदि चोदसमंगबाहिरयं ॥३६८॥

अर्थ- सामायिक, चतुर्विंशतिस्तव, वन्दना, प्रतिक्रमण, वैनयिक, कृतिकर्म, दशवैकालिक, उत्तराध्ययन, कल्पव्यवहार, कल्पाकल्प, महाकल्प, पुंडरीक, महापुंडरीक, निषिद्धिका ये अंगबाह्यश्रुतके चौदह भेद हैं।

Trans. 367-368. The fourteen non-aṅga (Aṅga-Vāhya, Prakirṇakas are), Sāmāyika, catura-vinśa-stava, Vandanā, Pratikramaṇa, Vainayika, Kṛti-karma. Daśśavaikālika, Uttarā-dhyayana, Kalpa Vyavahāra, Kalpā-Kalpya, Mahā-kalpya, Puṇḍarika, Mahā-puṇḍarika, and Niṣiddhikā).

Note- For further particulars, see Tattvartha Sūtra 20, chapter I, S. B. J., Vol. II, by Jaini.

सुदकेवलं च णाणं दोण्णि वि सरिसाणि होति बोहादो ।
 सुदणाणं तु परोक्खं पच्चक्खं केवलं णाणं ॥३६९॥

अर्थ- ज्ञानकी अपेक्षा श्रुतज्ञान तथा केवलज्ञान दोनों ही सदृश हैं परन्तु दोनोंमें अन्तर यही है कि श्रुतज्ञान परोक्ष है और केवलज्ञान प्रत्यक्ष है।

Trans. 369. (Viewed) as knowledge, (full) scriptural and perfect knowledge, both are equal; but scriptural knowledge (is) indirect (Parokṣa, and perfect knowledge (is), direct (Pratyakṣa).

अवहीयदि त्ति ओही सीमाणाने त्ति वण्णियं समये ।
 भवगुणपच्चय विहियं जमोहिणानो त्ति णं वेति ॥३७०॥

अर्थ- द्रव्य, क्षेत्र, काल, भावकी अपेक्षासे जिसके विषयकी सीमा हो उसको अवधिज्ञान कहते हैं। इसीलिये परमाणममें इसको सीमाज्ञान कहा है। तथा इसके जिनेन्द्रदेव दो भेद कहे हैं- एक भवप्रत्यय दूसरा गुणप्रत्यय।

Trans. 370. (Visual knowledge is called) Avadhi, because it is limited (Avadhīyate), and it is called in the scriptures Sīmā jñāna (bounded knowledge, because it is bounded in respect of its subject matter, Dravya, its scope in space, Kṣetra, its duration in time, Kāla, and its different conditions Bhāva). And the Conquerors speak of visual knowledge as of (2) kinds, produced by birth (Bhava-pratyaya), or by merit (Guṇa-pratyaya).

भवपच्चङ्गो सुरणिरयाणं तित्थे वि सव्व अंगुत्थो ।

गुणपच्चङ्गो णरतिरियाणं संखादि चिण्हभवो ॥३७१॥

अर्थ- भवप्रत्यय अवधिज्ञान देव, नारकी तथा तीर्थकरोंके भी होता है और यह ज्ञान सम्पूर्ण अंगसे उत्पन्न होता है। गुणप्रत्यय अवधिज्ञान पर्याप्त मनुष्य तथा संज्ञी पंचेन्द्रिय तिर्यचोंके भी होता है और यह ज्ञान शंखादि चिह्नोंसे होता है।

Trans. 371. Birth born (Bhava-pratyaya, Visual knowledge, is possessed by) celestial and hellish beings, and also by the Tīrthaṅkaras, and rises (from the destruction subsidence of visual-knowledge-obscuring Karma). in all (parts of) the body. Merit-born (Guṇa-pratyaya visual-knowledge is acquired) by human and sub-human beings, and rises (from the destruction-subsidence of visual-knowledge-obscuring Karma in body above the nevel) at the marks of conch etc. (e.g. lotus, bolt, svastika, etc.).

गुणपच्चङ्गो छद्धा अणुगावद्धिद पवहुमाणिदरा ।

देसोही परमोही सव्वोहि त्ति य तिथा ओही ॥३७२॥

अर्थ- गुणप्रत्यय अवधिज्ञानके छह भेद हैं, अनुगामी, अननुगामी, अवस्थित, अनवस्थित, वर्धमान, हीयमान तथा सामान्यसे अवधिज्ञानके देशावधि, परमावधि, सर्वावधि इस तरहसे तीन भेद भी होते हैं।

Trans. 372. Merit-born (visual knowledge is) of 6 kinds, (1) Accompanying (Anugāmī), (2) steadfast (Avasthita), (3) increasing (Vardha-māna), and their opposites, [(4) Non-accompanying (Ananugāmī), (5) unsteady or changeable (Anavasthita), (6) decreasing (Hīyamāna)]. And (generally there are) 3 kinds of visual (knowledge). Partial-visual (knowledge, Deśā-vadhi), High visual (knowledge Parmāvadhi) and Full visual (knowledge, Sarvā-vadhi).

भवपच्चङ्गो ओही देसोही होदि परमसव्वोही ।

गुणपच्चङ्गो णियमा देसोही वि य गुणे होदि ॥३७३॥

अर्थ- भवप्रत्यय अवधि नियमसे देशावधि ही होता है और परमावधि तथा सर्वावधि नियमसे गुणप्रत्यय ही हुआ करते हैं। देशावधिज्ञान भवप्रत्यय और गुणप्रत्यय दोनों तरहका होता है।

Trans. 373. Birth-born (Bhava-Pratyaya) visual (knowledge) is necessarily partial visual (knowledge, Deśā-vadhi). High (Parama) and Full (Sarva) visual-knowledge (is necessarily) merit-born (Guṇa-Pratyaya). Partial Visual knowledge also may be merit (born).

देसोहिस्स य अवरं णरतिरिये होदि संजदह्मि वरं ।

परमोही सव्वोही चरमसरीस्स विरदस्स ॥३७४॥

अर्थ- जघन्य देशावधिज्ञान संयत तथा असंयत दोनों ही प्रकारके मनुष्य तथा देशसंयमी संयतासंयत तिर्यचोंके होता है। उत्कृष्ट देशावधिज्ञान संयत जीवोंके ही होता है। किन्तु परमावधि और सर्वावधि चरमशरीरी महाव्रतीके ही होता है।

Trans. 374. The minimum of partial visual (knowledge) is (acquired by merit) by human and sub-human beings; the maximum, by the self-controlled (Saṁyamī saints).

High-visual (Parmā-vadhi) and Full-visual (Sarvā-vadhi) (knowledge rise only) in vowful (saints) in their last incarnation.

पडिवादी देसोही अप्पडिवादी हवन्ति सेसा ओ ।

मिच्छत्तं अविरमणं ण य पडिवज्जन्ति चरिमदुगे ॥३७५॥

अर्थ- देशावधिज्ञान प्रतिपाती होता है और परमावधि तथा सर्वावधि अप्रतिपाती होते हैं। परमावधि और और सर्वावधिवाले जीव नियमसे मिथ्यात्व और अव्रत अवस्थाको प्राप्त नहीं होते।

Trans. 375. Well ! partial visual (knowledge is) fallible (Pratipāti), the remaining two are in-fallible (Apratipāti). (Souls having the) last two kinds (of visual knowledge) cannot have wrong belief or vowlessness.

द्वं खेत्तं कालं भावं पडि रूबि जाणदे ओही ।

अवरादुक्कस्सो ति य वियप्परहिदो दु सव्वोही ॥३७६॥

अर्थ- जघन्य भेदसे लेकर उत्कृष्ट भेद पर्यन्त अवधिज्ञानके जो असंख्यात लोक प्रमाण भेद हैं वे सब ही द्रव्य, क्षेत्र, काल, भावकी अपेक्षासे प्रत्यक्षतया रूपी (पुद्गल) द्रव्यको ही ग्रहण कहते हैं तथा उसके सम्बन्धसे संसारी जीव द्रव्यको भी जानते हैं किन्तु सर्वावधिज्ञानमें जघन्य उत्कृष्ट आदि भेद नहीं हैं। वह निर्विकल्प-एक प्रकारका है।

Trans. 376. Visual (knowledge) from its minimum to its maximum, in respect of its subject matter, (Darvya), scope (Kṣetra), Time (Kāla) and condition (Bhāva) knows (only) material (objects). And the Full Visual knowledge is free from the distinctions of (minimum and maximum).

णोकम्मुरालसंचं मज्झिमजोगोज्जियं सविस्सचयं ।

लोयविभत्तं जाणदि अवरोही दव्वदो णियमा ॥३७७॥

अर्थ- मध्यम योगके द्वारा संचित विस्त्रसोपचयसहित नोकर्म औदारिक वर्णनाके संचयमें लोकका भाग देनेसे जितना द्रव्य लब्ध आवे उतनेको नियमसे जघन्य अवधिज्ञान द्रव्यकी अपेक्षासे जानता है।

Trans. 377. The collection (Saṅcaya) of quasi-karmic (no-karma), physical (audārika) molecules acquired by medium vibratory activity (Yoga of the soul) with its naturally attendant (Visrasopacaya group of atoms), divided by (the innumerable spatial units of) the universe (Loka, is what) minimum visual (knowledge) necessarily knows as (its) subject matter.

सहुमणिगोद अपज्जत्तयस्स जादस्स तदिय समयहि ।

अवरोगाहणमाणं जहण्णयं ओहिखेत्तं तु ॥३७८॥

Trans. 378. In the third instant of the birth of fine (completely) undevelopable common (soul, Sūkṣma Labdhyā-Paryāpta Nigoda) there is the minimum extent of localisation. (This is) the minimum scope in space of the visual-knowledge.

अर्थ- सूक्ष्म निगोदिया लब्ध्यपर्याप्तककी उत्पन्न होनेसे तीसरे समयमें जो जघन्य अवगाहना होती है उसका जितना प्रमाण है उतना ही अवधिज्ञानके जघन्य क्षेत्रका प्रमाण है।

अवरोहिखेत्तदीहं वित्थारुस्सेहयं ण जाणामो ।

अण्णं पुण समकरणे अवरोगाहण पमाणं तु ॥३७९॥

अर्थ- जघन्य अवधिज्ञानके क्षेत्रकी ऊँचाई, लम्बाई, चौड़ाईका भिन्न-भिन्न प्रमाण हम नहीं जानते तथापि यह मालूम है कि समीकरण करनेसे जितना जघन्य अवगाहनाका प्रमाण होता है, उतना ही जघन्य अवधि का क्षेत्र है।

Trans. 379. We do not know the length, breadth and height in space of minimum visual (knowledge) separately. But its cubic volume (Samikaraṇa) is the extent in space of minimum (Visual knowledge).

अवरोगाहणमाणं उत्सेहंगुल असंखभागस्स ।

सूइस्स य घणपदरं होदि हु तक्खेत्त समकरणे ॥३८०॥

अर्थ- उत्सेधांगुलकी अपेक्षासे उत्पन्न व्यवहार सूच्यंगुलके असंख्यातवें भागप्रमाण भुजा कोटी और वेधमें परस्पर गुणा करनेसे जितना जघन्य अवगाहनाका प्रमाण होता है उतना ही समीकरण करनेसे जघन्य अवधिज्ञानका क्षेत्र होता है।

Trans. 380. The extent of the minimum localisation is an innumerable part of an ordinary finger (Utseda-aṅgula.) And the spatial volume of it is the cube of its base (Sūci).

अवरं तु ओहिखेत्तं उस्सेहं अंगुलं हवे जह्मा ।
सुहमोगाहणमाणं उवरि पमाणं तु अंगुलयं ॥३८१॥

अर्थ- जो जघन्य अवधिका क्षेत्र पहले बताया है वह श्री व्यवहारांगुलकी अपेक्षा उत्सेधांगुल ही है; क्योंकि वह सूक्ष्म निगोदिया लब्ध्यपर्याप्तककी जघन्य अवगाहना प्रमाण है परन्तु आगे अंगुलसे प्रमाणांगुलका ग्रहण करना।

Trans. 381. The minimum spatial extent (Kṣetra) of visual (knowledge) is (measured) by Utseda āṅgula, because (its measure is) the extent of the space occupied by (the body of the) fine (completely undevelopable common soul in 3rd instant of its birth.) Beyond this (the measure is by) (Pramāṇa-āṅgula) (equal to 500 Utsedāṅgula).

अवरोहि खेत्तमज्जे अवरोही अवरदव्वमवगमदि ।
तदव्वस्सवगाहो उस्सेहासंख घणपदरो ॥३८२॥

अर्थ- जघन्य अवधि अपने जघन्य क्षेत्रमें जितने भी असंख्यात प्रमाण जघन्य द्रव्य हैं जिसका कि प्रमाण ऊपर बताया जा चुका है उन सबको जानता है उस द्रव्यका अवगाह उत्सेधांगुलके असंख्यातवें घन प्रतर होता है।

Trans. 382. Minimum visual (knowledge) knows the minimum matter (which is in the minimum spacial extent of visual (knowledge)). The volume of that subject matter is the cube of the innumerable part of an Utsedha-finger.

आवलि असंखभागं तीदभविस्सं च कालदो अवरं ।
ओही जाणदि भावे काल असंखेज्जभागं तु ॥३८३॥

अर्थ- जघन्य अवधिज्ञान कालकी अपेक्षासे आवलिके असंख्यातवें भाग प्रमाण अपने विषयभूत द्रव्यकी व्यंजन पर्यायोंको जानता है। तथा जितनी पर्यायोंको कालकी अपेक्षासे जानता है उसके असंख्यातवें भाग प्रमाण वर्तमान कालकी पर्यायोंको भावकी अपेक्षासे जानता है।

Trans. 383. Minimum visual-knowledge as to time knows (its proper subject matter of the present), past and future to the extent of an innumerable part of a wink, Āvalī. As regards conditions, (minimum-visual knowledge knows) an innumerable part of (the conditions in the minimum) time (given above).

अवरद्वद्वादुवरिमदव्ववियप्पाय होदि ध्रुवहारो ।
सिद्धाणंतिम भागो अभव्वसिद्धादणंतगुणो ॥३८४॥

अर्थ- जघन्य द्रव्यके ऊपर द्रव्यके दूसरे भेद निकालनेके लिये ध्रुवहार होता है। इसका (ध्रुवहारका) प्रमाण सिद्धराशिसे अनन्तवें भाग और अभव्वराशि से अनन्तगुणा है।

Trans. 384. For the different divisions of the subject matter (dravya) beyond the minimum subject matter, (there) is Dhruvahāra (geometric progression with a fractional common ratio.) (It is) an infinite part of the liberated souls or infinite times (the number of) souls which are incapable of liberation (Abhavya).

ध्रुवहारकम्मवग्गण गुणगारं कम्मवग्गणं गुणिदे ।
समयपबद्धपमाणं जाणिज्जो ओहिविसयद्धि ॥३८५॥

अर्थ- ध्रुवहाररूप कर्मणवर्गणाके गुणाकारका और कर्मणवर्गणाका परस्पर गुणा करनेसे अवधिज्ञानके विषयमें समयप्रबद्धका प्रमाण निकलता है।

Trans. 385. Common ratio (Dhruvahāra multiplied by itself as many times as the number of divisions of partial visual knowledge as regards its subject matter in the geometric series i.e. the number of terms minus 2, is) multiplier of the karmic molecule. (This) multiplied by karmic molecule should be known to be the unit of bondage (Samaya-Prabaddha with regard to (the subject matter of) visual knowledge).

मणद्ववर्गणाण वियप्पाणंतिमसमं • खु ध्रुवहारो ।

अवरुक्कस्स विसेसा रूवहिया तव्वियप्पा हु ॥३८६॥

अर्थ- मनोद्रव्य वर्गणाके उत्कृष्ट प्रमाणमेंसे जघन्य प्रमाणके घटानेपर जो शेष रहे उसमें एक मिलानेसे मनोद्रव्य वर्गणाओंके विकल्पोंका प्रमाण होता है। इन विकल्पोंका जितना प्रमाण हो उसके अनन्त भागमें से एकभागके बराबर अवधिज्ञानके विषयभूत द्रव्यके ध्रुवहारका प्रमाण होता है।

Trans. 386. An infinite part of (the number of) divisions of molecules of mind matter (mano-vargaṇā) is the common ratio (Druvahāra) The difference between the maximum and minimum (of mind matter) plus one (are) the divisions of these molecules. (It refers to common ratio of mind molecules).

अवरं होदि अणंतं अणंतभागेण अहियमुक्कस्सं ।

इदि मणभेदाणंतिम भागो दव्वम्मि ध्रुवहारो ॥३८७॥

अर्थ- मनोद्रव्य वर्गणाका जघन्य प्रमाण अनन्त है, इसमें इसीके (जघन्यके ही) अनन्त भागोंमेंसे एक भागके मिलानेपर मनोवर्गणाका उत्कृष्ट प्रमाण होता है। इस प्रकार जितने मनोवर्गणाके भेद हुए उसके अनन्त भागोंमें से एक भागप्रमाण अवधिज्ञानके विषयभूत द्रव्यके विषयमें ध्रुवहारका प्रमाण होता है।

Trans. 387. The minimum of mind-molecules is infinite (i.e. minimum mind molecule is of infinite atoms). And an infinite part of it added to it (is) its maximum. Thus an infinite part of the divisions of the mind (molecules is) the common ration (Dhruvahāra) for the subject matter (of visual knowledge).

ध्रुवहारस्स पमाणं सिद्धाणंतिमपमाणमेत्तं पि ।

समयपबद्धणिमित्तं कम्मणवर्गणगुणादो दु ॥३८८॥

होदि अणंतिमभागो तग्गुणारो वि देस ओहिस्स ।

दोऊणदव्व भेद पमाणद्धुवहार संवग्गो ॥३८९॥

अर्थ- यद्यपि ध्रुवहारका प्रमाण सिद्धराशिके अनन्तवें भाग है, तथापि अवधिज्ञानविषयक समयप्रबद्धका प्रमाण निकालनेके निमित्तभूत कर्मणवर्गणाके गुणकारसे अनन्तवें भाग समझना चाहिये। द्रव्यकी अपेक्षासे देशावधिज्ञानके जितने भेद हैं उनमें दो कम करनेसे जो प्रमाण शेष रहे उतनी बार ध्रुवहारका परस्पर गुणा करनेसे कर्मण वर्गणाके गुणकारका प्रमाण निकलता है।

Trans. 388-389. Although the extent of common ratio is the infinite part of the liberated souls, yet it is an infinite part of that multiplier of Karmic Vargaṇā, (which is used) for the unit of bondage (Samaya-Prabaddha). And the multiplier of the (karmic molecule) is the common ratio multiplied by itself as many times as the number of divisions in partial visual knowledge minus 2.

अंगुल असंखगुणिदा खेत्तवियप्पा य दव्वभेदा हु ।

खेत्तवियप्पा अवरुक्कस्स विसेसं हवे एत्थ ॥३९०॥

अर्थ- देशावधि ज्ञानके क्षेत्रकी अपेक्षा जितने भेद हैं उनको सूच्यंगुलके असंख्यातवें भागसे गुणाकरने पर द्रव्यकी अपेक्षासे देशावधिके भेदोंका प्रमाण निकलता है। क्षेत्रकी अपेक्षा उत्कृष्ट प्रमाणमेंसे सर्व जघन्य प्रमाणको घटानेसे जो प्रमाण शेष रहे उतने ही क्षेत्रकी अपेक्षासे देशावधिके विकल्प होते हैं। इसका सूच्यंगुलके असंख्यातवें भागसे गुणा करके उसमें एक मिलानेपर द्रव्यकी अपेक्षासे देशावधिके भेद होते हैं।

Trans. 390. The divisions of spatial extent (kṣetra) multiplied by an innumerable part of a (linear) finger (sūcyāṅgula) are the divisions of subject matter. (And) the divisions of spatial extent are the difference between its minimum and maximum (plus one).

अंगुल असंखभागं अवरं उक्कस्सयं हवे लोगो ।

इदि वर्गण गुणारो असंखध्रुवहारसंवग्गो ॥३९१॥

अर्थ- देशावधिका पूर्वोक्त सूक्ष्म निगोदिया लब्ध्यपर्याप्तककी जघन्य अवगाहनाप्रमाण, अर्थात् घनांगुलके असंख्यातवें भागस्वरूप जो प्रमाण बताया है वही जघन्य देशावधिके विषयभूत क्षेत्रका प्रमाण है। सम्पूर्ण लोकप्रमाण उत्कृष्ट क्षेत्र है। इसलिये देशावधिके सर्वद्रव्य विकल्पोंके प्रमाणमेंसे दो कम करनेपर जो प्रमाण शेष रहे उतने ही ध्रुवहारोंको रखकर परस्पर गुणा करनेसे कार्मण वर्गणाका गुणकार निष्पन्न होता है।

Trans. 391. The minimum (spatial extent) is the innumerable part of a cubic finger (Ghanāṅgula equal to the minimum space occupied by a body of fine completely undevelopable common soul) and the maximum is the univer (Loka). Thus the multiplier of the (karmic) molecule (is) the product of the common ratio (Dhruvahāra) multiplied by itself innumerable times.

वग्गण रासिपमाणं सिद्धाणंतिमपमाणमेत्तं पि ।
दुगसहियपरमभेद पमाणवहाराण संवग्गो ॥३९२॥

अर्थ- कार्मण वर्गणाका प्रमाण यद्यपि सिद्धराशिके अनन्तवें भाग है; तथापि परमावधिके भेदोंमें दो मिलानेसे जो प्रमाण हो उतनी जगह ध्रुवहार रखकर परस्पर गुणा करनेसे लब्धराशि प्रमाण कार्मण वर्गणाका प्रमाण होता है।

Trans. 392. Though the number of all the (karmic) molecules is an infinite part of the liberated souls; yet it is the product of the common ratio (Dhruvahāra) multiplied by itself as many times as there are divisions in high visual-knowledge (Paramā-vadhi) plus two.

परमावहिस्स भेदा सग ओगाहण वियप्पहदतेऊ ।
इदि ध्रुवहारं वग्गण गुणगारं वग्गणं जाणे ॥३९३॥

अर्थ- तेजकायिक जीवोंकी अवगाहनाके जितने विकल्प हैं उसका और तेजस्कायिक जीवराशिका परस्पर गुणा करनेसे जो राशि लब्ध आवे उतना ही परमावधि ज्ञानके द्रव्यकी अपेक्षासे भेदोंका प्रमाण होता है इस प्रकार ध्रुवहार, वर्गणा का गुणकार, और वर्गणाका स्वरूप समझना चाहिये।

Trans. 393. The divisions of high visual knowledge (with reference to subject matter) are the product of the number of fire-bodied souls and the divisions of the next or size of their bodies. Thus know the common ratio, (Dhruvahāra), multiplier of (karmic) molecules (Vargaṇa-Guṇa-kāra) and the karmic molecule (Vargaṇā).

देसोहि अवरदव्वं ध्रुवहारेणवहिदे हवे विदियं ।
तदियादि वियप्पेसु वि असंखवारो त्ति एस कम्पो ॥३९४॥

अर्थ- देशावधिज्ञानके जघन्य द्रव्यका जो प्रमाण पहले बताया गया है उसमें ध्रुवहारका एक बार भाग देनेसे देशावधिके दूसरे विकल्पके द्रव्यका प्रमाण निकलता है। दूसरे विकल्पके द्रव्यमें ध्रुवहारका एक बार भाग देनेसे तीसरे विकल्पके द्रव्यका और तीसरे विकल्पके द्रव्यमें ध्रुवहारका भाग देनेसे चौथे विकल्पके द्रव्यका प्रमाण निकलता है। इसी तरह आगेके विकल्पोंके द्रव्यका प्रमाण निकालनेके लिये क्रमसे असंख्यात बार ध्रुवहारका भाग देना चाहिये।

Trans. 394. The minimum subject mater of partial visual knowledge divided by the common ration (Dhruvahāra) is its second (division) and the third etc., divisions (are) also (got by dividing the second etc., division, by common ratio. And so on successively innumerable times.

देसोहि मज्झभेदे सविस्ससोवचयतेज कम्मंगं ।
तेजोभासमण्णाणं वग्गणयं केवलं जत्थ ॥३९५॥
पस्सदि ओहि तत्थ असंखेज्जाओ हवन्ति दीउवही ।
वासाणि असंखेज्जा ह्वन्ति असंखेज्ज गुणिदकमा ॥३९६॥

अर्थ- इस प्रकार असंख्यात बार ध्रुवहारका भाग देते-देते देशावधि ज्ञानके मध्य भेदोंमेंसे जहाँ पर प्रथमभेद विस्त्रसोपचयसहित तैजस शरीरको विषय करता है अथवा इसके आगेका दूसरा मध्यभेद विस्त्रसोपचय सहित कर्मण शरीरको विषय करता है अथवा तीसरा भेद विस्त्रसोपचयरहित तैजस वर्गणाको विषय करता है, अथवा चौथा भेद विस्त्रसोपचयरहित भाषा वर्गणाको विषय करता है अथवा पाँचवाँ भेद विस्त्रसोपचय रहित मनोवर्गणाको विषय करता है, वहाँ पर सामान्यसे देशावधिके उक्त पाँचों ही मध्य भेदोंके क्षेत्रका प्रमाण असंख्यातद्वीप समुद्र और कालका प्रमाण असंख्यात वर्ष है परन्तु विशेषताकी अपेक्षासे पूर्व-पूर्व भेदके क्षेत्र और कालके प्रमाणसे उत्तरोत्तर भेदके क्षेत्र और कालका प्रमाण असंख्यातगुणा-असंख्यातगुणा है; क्योंकि असंख्यातके भी असंख्यात भेद होते हैं।

Trans. 395-396. In the intermediate divisions (of subject matter of) the partial visual knowledge where the visual knowledge sees the electric body (Taijasa-śarīra) with its naturally attendant (atoms), (visrasopacaya), (further on) the karmic body with its naturally attendant atoms, (still further) the electric molecule purely (i.e. without the naturally attendant atoms), (and then the speech molecules (alone), (and then) the mind molecule only; there (the spatial scope) extends to innumerable continents and oceans (and the time i.e., the past and future into which visual knowledge can see) is innumerable years. (And each of these 5 divisions of subject matter has its spatial extent and time) innumerable times of that of the immediately preceding one (among the five divisions themselves).

तत्तो कम्मइयस्सिगि समयपबद्धं विविस्सोवचयं ।

ध्रुवहारस्स विभज्जं सव्वोही जाव ताव हवे ॥ ३९७ ॥

अर्थ- इसके अनन्तर मनोवर्गणाओंमें ध्रुवहारका भाग देना चाहिये। इस तरह भाग देते विस्त्रसोपचयरहित कर्मणका एक समयप्रबद्ध प्रमाण विषय आता है। उक्त क्रमानुसार इसमें भी सर्वावधिके विषय पर्यन्त ध्रुवहार का भाग देते जाना चाहिये।

Trans. 397. Still further (it sees) one unit of bondage (Samaya-Prabaddha) of karmic (body) without the naturally attendant atoms (Visrasopacaya); thus, the division of the common ratio (Dhruvahāra) should be done up to the full visual knowledge.

एदह्मि विभज्जंते दुचरिमदेसावहिम्मि वग्गणयं ।

चरिमे कम्मइयस्सिगि वग्गणमिगिवार भजिदं तु ॥ ३९८ ॥

अर्थ- इस समयप्रबद्धमें भी ध्रुवहारका भाग देनेसे देशावधि ज्ञानके द्विचरम भेदके विषयभूत द्रव्यका कर्मण वर्गणारूप प्रमाण निकलता है। इस एक कर्मणवर्गणामें भी एक बार ध्रुवहारका भाग देनेसे जो लब्ध आवे उतना देवावधिके चरम भेदके विषयभूत द्रव्यका प्रमाण निकलता है।

Trans. 398. This unit of bondage (Samaya Prabaddha, in gāthā 397) divided by common ratio (Dhruvahāra is) the (Karmic) molecule, (the subject matter of) penultimate (division of) partial knowledge. (And) this Karmic molecule divided once by the common ratio (Dhruvahāra) (is the subject matter of) the last (division of partial visual knowledge).

अंगुल असंखभागे दव्ववियप्पे गदे दु खेत्तहि ।

एगागासपदेसो वड्ढि संपुण्णलोगो ति ॥ ३९९ ॥

अर्थ- सूच्यंगुलके असंख्यातवें भागप्रमाण जब द्रव्यके विकल्प हो जायें तब क्षेत्रकी अपेक्षा जघन्य क्षेत्रका जितना प्रमाण है उसके ऊपर आकाशका एक प्रदेश बढ़ता है। इसी क्रमसे एक-एक आकाशके प्रदेशकी वृद्धि वहाँ तक करनी चाहिए जहाँ तक कि देशावधिका उत्कृष्ट क्षेत्र सर्वलोक हो जाये।

Trans. 399. After there have been an innumerable part of a (linear), finger (Sūcyaṅgula) divisions of the subject matter (Dravya), the spatial extent increases by one spatial unit (Pradeśa). Thus up to the whole universe.

आवलि असंखभागे जहण्णकालो कमेण समयेण ।
वह्मदि देसोहिवरं पल्लं समऊणयं जाव ॥४००॥

अर्थ- जघन्य देशावधिके विषयभूत कालका प्रमाण आवलीका असंख्यातवाँ भाग है। इसके ऊपर उत्कृष्ट देशावधिके विषयभूत एक समय कम एक पल्य प्रमाण काल पर्यन्त, ध्रुव तथा अध्रुव वृद्धि रूप क्रमसे एक एक समयकी वृद्धि होती है।

Trans. 400. The minimum time (knowable by visual-knowledge is) an innumerable part of a wink or Āvalī. It increases constantly (Dhruva) or otherwise (Adhruva) by one instant gradually up to a Palya minus one instant, i.e., the maximum time for the partial visual knowledge.

अंगुल असंखभागं ध्रुवरूपेण य असंखवारं तु ।
असंखसंखं भागं असंखवारं तु अद्धुवगे ॥४०१॥

अर्थ- प्रथम काण्डकमें चरम विकल्पपर्यन्त असंख्यात बार (घनांगुलमें आवलीका भाग देने पर जितना प्रमाण आवे इस तरहके) अंगुलके असंख्यातवें भाग प्रमाण ध्रुव वृद्धि होती है और इसी काण्डकके अन्त पर्यन्त घनांगुलके असंख्यातवें और संख्यातवें भागप्रमाण अध्रुव वृद्धि भी असंख्यात बार होती है।

Trans. 401. (There are 19 sections (Kāṇḍakas) from minimum to maximum (partial visual-knowledge). (In the first section there is) a continuous (Dhruva, increase, by) an innumerable part of a (cubic) finger, innumerable times (between the first and the last divisions of the first section); and non-constant (Adhruva, increase) is by the innumerable or numerable part of a (cubic) finger, innumerable times.

ध्रुवअद्धुवरूपेण य अवरे खेत्तहि वह्मिदे खेत्ते ।
अवरे कालहि पुणो एक्केकं वह्मिदे समयं ॥४०२॥

अर्थ- जघन्य देशावधिके विषयभूत क्षेत्रके ऊपर ध्रुवरूपसे अथवा अध्रुवरूपसे क्षेत्रकी वृद्धि होनेपर जघन्य कालके ऊपर एक-एक समयकी वृद्धि होती है।

Trans. 402. The minimum spatial extent being increased by constant or non-constant (additions) to the spatial extent, then in the minimum time one instant is added at each (step).

संखातीदा समया पढमे पव्वम्मि उभयदो वही ।
खेत्तं कालं अस्सिय पढमादी कंडये वोच्छं ॥४०३॥

अर्थ- प्रथम काण्डकमें ध्रुवरूपसे और अध्रुवरूपसे असंख्यात समयकी वृद्धि होती है। इसके आगे प्रथमादि काण्डकोंका क्षेत्र और कालके आश्रयसे वर्णन करते हैं।

Trans. 403. In the first section (there is) increase of innumerable instants by both (i.e. constant Dhruva and non-constant Adhruva increase) I shall describe the first etc. (up to 19) sections (Kāṇḍakas) with respect to spatial extent (Kṣetra) and time (Kāla).

अंगुलमावलियाए भागमसंखेज्जदो वि संखेज्जो ।
अंगुलमावलियंतो आवलियं चांगुल पुधत्तं ॥४०४॥

अर्थ- प्रथम काण्डकमें जघन्य क्षेत्रका प्रमाण घनांगुलके असंख्यातवें भागप्रमाण और उत्कृष्ट क्षेत्रका प्रमाण घनांगुलके संख्यातवें भाग प्रमाण है और जघन्य कालका प्रमाण आवलीका असंख्यातवाँ भाग तथा उत्कृष्ट कालका प्रमाण आवली आवलीका संख्यातवाँ भाग है। दूसरे काण्डकमें क्षेत्र घनांगुलप्रमाण- और काल कुछ कम एक आवली प्रमाण है। तीसरे काण्डकमें क्षेत्र घनांगुल पृथक्त्व और काल आवली पृथक्त्व प्रमाण है।

Trans. 404. (In the first section, Kāṇḍakas, the minimum and maximum space is respectively) innumerable and numerable part of a (cubic) finger, (and time, innumerable and numerable part of) an Āvalī.

(The maximum of the first gives the minimum of the second and so on. Therefore only the maximum of space and of the remaining 18 sections are given below in their order). In the (second), a (cubic) finger; a little less than an Āvalī; (in the third) 3 to nine (Prathaktva cubic) fingers; (3 to nine) Āvalis.

आवलयि पुधत्तं पुण हत्थं तह गाउयं मुहुत्तं तु ।
जोयण भिण्णमुहुत्तं दिवसंतो पण्णुवीसं तु ॥४०५॥

अर्थ- चतुर्थ काण्डकमें काल आवलीपृथक्त्व और क्षेत्र हस्तप्रमाण है। पाँचवें काण्डकमें क्षेत्र एक कोश और काल अन्तमुहूर्त है। छट्टे काण्डकमें क्षेत्र एक योजन और काल भिन्नमुहूर्त है। सातवें काण्डकमें काल कुछ कम एक दिन और क्षेत्र पच्चीस योजन है।

Trans. 405. (In the fourth) one hand; and 3 to 9 Āvalis. (In the fifth) one Kośa, (Gavyūti=2 miles); (Antar-muhūrta) (In the sixth) one yojana; Antar-muhūrta. And (in the seventh) twenty-five (yojanas); and a little less than a day (24 hours).

भरहम्मि अद्धमासं साहियमासं च जम्बुदीवहम्मि ।
वासं च मणुवलोए वासपुधत्तं रुचगम्मि ॥४०६॥

अर्थ- आठवें काण्डकमें क्षेत्र भरतक्षेत्रप्रमाण और काल अर्धमास-पक्षप्रमाण है। नौवें काण्डकमें क्षेत्र जम्बूद्वीपप्रमाण और काल एक मास से कुछ अधिक है। दशवें काण्डकमें क्षेत्र मनुष्य लोकप्रमाण और काल एक वर्षप्रमाण है। ग्यारहवें काण्डकमें क्षेत्र रुचकद्वीप और काल वर्ष पृथक्त्वप्रमाण है।

Trans. 406. (In the eighth) Bharata-Kṣetra; half-month. (In the ninth) Jambūdvīpa; a little more than a month. (In the tenth) Human region ($2\frac{1}{2}$ continents bounded by mountain Mānuṣottara); one year.

(In the eleventh) Rucakadvīpa (the 13th continent); 3 to 9 years.

संखेज्जपमे वासे दीव समुद्वा हवन्ति संखेज्जा ।
वासम्मि असंखेज्जे दीवसमुद्वा असंखेज्जा ॥४०७॥

अर्थ- बारहवें काण्डकमें संख्यात वर्षप्रमाण काल और संख्यातद्वीप-समुद्रप्रमाण क्षेत्र है। इसके आगे तेरहवें से लेकर उन्नीसवें काण्डक पर्यन्त असंख्यात वर्षप्रमाण काल और असंख्यात द्वीप-समुद्रप्रमाण क्षेत्र है।

Trans. 407. (In the twelfth) numerable continents and oceans; and numerable years (In the thirteenth to nineteenth) innumerable continents and oceans; innumerable years. (In each of these seven, innumerable means innumerable times the quantity of space and time in the preceding Kāṇḍaka).

कालविसेसेणवहिद खेत्तविसेसो धुवा हवे वट्ठी ।
अद्धुववट्ठी वि पुणो अविरुद्धं इट्ठकंडम्मि ॥४०८॥

अर्थ- किसी विवक्षित काण्डकके क्षेत्रविशेषमें काल विशेषका भाग देनेसे जो शेष रहे उतना ध्रुव वृद्धिका प्रमाण है। इसी तरह अविरोध रूपसे इष्टकाण्डकमें अध्रुव वृद्धिका भी प्रमाण समझना चाहिये।

इस अध्रुव वृद्धिका क्रम आगेकी गाथामें कहेंगे।

Trans. 408. (In any of the 19 sections) the difference (between its minimum and maximum spatial extent divided by the difference (between its minimum and maximum) time, is the constant increase (Dhruva-vṛddhi); and the non-constant increase (Adhruva vṛddhi) also (takes-place) without (causing any) difference (in the quantity) in any given section.

अंगुल असंखभागं संखं वा अंगुलं च तस्सेव ।

संखमसंखं एवं सेढी पदरस्स अद्धुवगे ॥४०६॥

अर्थ- घनांगुलके असंख्यातवें भागप्रमाण वा घनांगुलके संख्यातवें भागप्रमाण वा घनांगुल मात्र वा संख्यात घनांगुलमात्र वा असंख्यात घनांगुलमात्र इसी प्रकार श्रेणीके असंख्यातवें भाग प्रमाण वा श्रेणीके संख्यातवें भागप्रमाण वा श्रेणीप्रमाण वा संख्यात श्रेणीप्रमाण वा असंख्यात श्रेणी प्रमाण वा प्रतरके असंख्यातवें भाग प्रमाण वा प्रतरके संख्यातवें भाग प्रमाण वा प्रतर प्रमाण प्रदेशोंकी वृद्धि होनेपर एक-एक समयकी वृद्धि होती है। यही अधुव वृद्धि का क्रम है।

Trans. 409. In non-constant increase (in the spatial extent by any one of the following kinds of increase i. e.), by an increase of the innumerable part of a (cubic) finger, numerable part of a (cubic finger), or a (cubic) finger, or numerable (cubic finger), innumerable (cubic finger), (innumerable part) of the line of universe (Jagat-Śreṇi); the numerable part of the line of universe), (the line of universe). (numerable lines of universe), (innumerable lines of universe). (innumerable part of) the area of universe (Jagat-pratara), (numerable part of area of universe), (area of universe), numerable times the area of universe, (there is an increase of one instant in the time).

कम्मइयवग्गणं ध्रुवहारे णिगिवारभाजिदे दव्वं ।

उक्कस्सं खेत्तं पुण लोको संपुण्णओ होदि ॥४१०॥

अर्थ- कार्मण वर्गणामें एक बार ध्रुवहारका भाग देनेसे जो लब्ध आवे उतना देशावधिके उत्कृष्ट द्रव्यका प्रमाण है। तथा सम्पूर्ण लोक उत्कृष्ट क्षेत्रका प्रमाण है।

Trans. 410. A karmic molecule divided once by the common ratio (Dhruvahāra is the measure of) maximum subject matter of (partial visual-knowledge). And (its maximum) spatial extent is the whole universe.

पल्लसमऊण काले भावेण असंखलोगमेत्ता हु ।

दव्वस्स य पज्जाया वरदेसोहिस्स विसया हु ॥४११॥

अर्थ- कालकी अपेक्षा एक समय कम एक पल्य और भावकी अपेक्षा असंख्यात लोकप्रमाण द्रव्यकी पर्याय उत्कृष्ट देशावधिका विषय है।

Trans. 411. (Its maximum) time (is) Palya minus one-instant. As to condition (Bhāva), the object of maximum partial visual (knowledge namely the modifications of the substance are) innumerable times the innumerable spatial units of the universe. (in number).

काले चउण्ण उट्ठी कालो भजिदव्व खेत्तउट्ठी य ।

उट्ठीए दव्वपज्जय भजिदव्वा खेत्त काला हु ॥४१२॥

अर्थ- कालकी वृद्धि होनेपर चारों प्रकारकी वृद्धि होती है। क्षेत्रकी वृद्धि होनेपर कालकी वृद्धि होती है और नहीं भी होती। इसी तरह द्रव्य और भावकी अपेक्षा वृद्धि होने पर क्षेत्र और कालकी वृद्धि होती भी है और नहीं भी होती परन्तु क्षेत्र और कालकी वृद्धि होने पर द्रव्य और भावकी वृद्धि अवश्य होती है।

Trans. 412. With an increase of time (there is increase) in all the four (matter, space, time and condition), With increase in space, (there) may or may not be (increase) in time. With increase in matter (Dravya) and condition (Paryāya, (there) may or may not be (increase) in space and time.

देसावहि वरदव्वं ध्रुवहारेणवहिदे हवे णियमा ।

परमावहिस्स अवरं दव्वपमाणं तु जिणदिट्ठं ॥४१३॥

अर्थ- देशावधिका जो उत्कृष्ट द्रव्यप्रमाण है उसमें एकबार ध्रुवहारका भाग देनेसे जो लब्ध आवे उतना ही नियमसे परमावधिके जघन्य द्रव्य का प्रमाण निकलता है, ऐसा जिनेन्द्र देव ने कहा है।

Trans. 413. The maximum matter of the partial visual (knowledge) divided by the common ratio (Dhruvahāra) is necessarily the measure of the minimum matter (Dravya) of high visual (knowledge, paramāvadhi).

परमावहिस्स भेदा सगउग्गाहणवियप्पहदतेऊ ।

चरिमे हारपमाणं जेदुस्स य होदि दव्वं तु ॥४१४॥

अर्थ- अपनी (तेजस्कायिक जीवराशिकी) अवगाहनाके भेदका जितना प्रमाण है उसका तेजस्कायिक जीवराशिके साथ गुणा करनेपर जो उत्पन्न हो उतने ही परमावधिज्ञानके भेद होते हैं। इनमेंसे सर्वोत्कृष्ट अन्तिम भेदमें द्रव्य ध्रुवहार प्रमाण होता है।

Trans. 414. (The number of) fire bodied (souls) multiplied by (the number of) the kinds of their sizes (is the number of) the divisions of high visual (knowledge) In the last i. e., the highest (division) the measure of common ratio (Dhruvahāra) is (the measure of) matter.

सव्वावहिस्स एक्को परमाणू होदि णिव्वियप्पो सो ।

गंगामहाणइस्स पवाहोव्व धुवो हवे हारो ॥४१५॥

अर्थ- परमावधिके उत्कृष्ट द्रव्यप्रमाणमें ध्रुवहारका एक बार भाग देनेसे लब्ध एक परमाणु मात्र द्रव्य आता है, वही सर्वावधिज्ञानका विषय होता है। यह ज्ञान तथा इसका विषयभूत परमाणु निर्विकल्पक है। यहाँ पर जो भागहार है वह गंगा महानदीके प्रवाहकी तरह ध्रुव है।

Trans. 415. (The measure of maximum matter of high visual knowledge i.e. as many atoms as there are units in common ratio, divided once by common ratio i.e.) on atom (Paramāṇu) is (the matter of) full visual (knowledge Sarvāvadhi. It (is) without divisions.

परमोहिदव्वभेदा जेत्तियमेत्ता हु तेत्तिया होंति ।

तस्सेव खेत्त कालवियप्पा विसया असंखगुणिदकमा ॥४१६॥

अर्थ- परमावधिके जितने द्रव्यकी अपेक्षासे भेद हैं उतने ही भेद क्षेत्र और कालकी अपेक्षा से हैं परन्तु उनका विषय असंख्यातगुणितक्रम है।

Trans. 416. (There) are as many divisions in respect of spatial extent and time in high visual knowledge as (there are) divisions in its matter. (Each division of space and time from minimum) is innumerable times (of its preceding one). in succession.

आवलि असंखभागा इच्छिद गच्छधणमाण मेत्ताओ ।

देसावहिस्स खेत्ते काले वि य होंति संवग्गे ॥४१७॥

अर्थ- किसी भी परमावधिके विवक्षित क्षेत्रके विकल्पमें अथवा विवक्षित कालके विकल्पमें संकल्पित धनका जितना प्रमाण हो उतनी जगह आवलीके असंख्यातवें भागोंको रखकर परस्पर गुणा करनेसे जो राशि उत्पन्न हो वही देशावधिके उत्कृष्ट क्षेत्र और उत्कृष्ट कालमें गुणाकारका प्रमाण होता है।

Trans. 417. An innumerable part of a wink or (Āvali) multiplied by itself as many times as the sum of the series 1, 2, 3, 4, 5, 5, 7, etc., up to the number of the given division (of high visual knowledge, and again) multiplied by (maximum) space or time of partial visual knowledge, amounts (respectively to the spatial extent or time of the given division of high visual knowledge).

गच्छ-समा तक्कालियतीदे रूऊणगच्छधणमेत्ता ।

उभये वि य गच्छस्स य धणमेत्ता होंति गुणगारा ॥४१८॥

अर्थ- विवक्षित गच्छकी जो संख्या हो उतने प्रमाणको विवक्षित गच्छसे अव्यवहित पूर्वके गच्छके प्रमाणमें मिलाकर एक कम करनेसे जो राशि उत्पन्न हो उसमें विवक्षित गच्छकी संख्या मिलानेसे संकल्पित धनका प्रमाण होता है। यही गुणकारका प्रमाण है।

Trans. 418. (Again) the number of times (the innumerable part of an Āvalī is) to be multiplied, (may be obtained) by adding the number of the given division to the sum of the series upto the number (just) preceding (the given division), namely, (the sum of) the terms excepting the (last) one.

परमावहि वरखेत्तेणवहिद उक्कस्स ओहि खेतं तु ।

सच्चावहि गुणगारो काले वि असंखलोगो दु ॥४१६॥

अर्थ- उत्कृष्ट अवधिज्ञानके क्षेत्रमें परमावधिके उत्कृष्ट क्षेत्रका भाग देनेसे जो लब्ध आवे उतना सर्वावधि सम्बन्धी क्षेत्रके लिए गुणकार है तथा सर्वावधि सम्बन्धी कालका प्रमाण लानेके लिये असंख्यात लोकका गुणकार है ।

Trans. 419. The maximum spatial extent of the Highest (i.e., full, Sarva) visual (knowledge) divided by the maximum spatial extent of high visual (knowledge) is the multiplier of (the spatial extent) of the Highest visual knowledge, and as regards time (the multiplier is) innumerable multiplied by innumerable spatial units of the universe.

Note-The multiplier is to be multiplied with the extent of space or time of high visual knowledge.

इच्छिद रासिच्छेदं दिण्णच्छेदेहिं भाजिदे तत्थ ।

लद्धमिददिण्णरासीणम्भासे इच्छिदो रासी ॥४२०॥

अर्थ- विवक्षित राशिके अर्धच्छेदोंमें देयराशिके अर्धच्छेदोंका भाग देनेसे जो लब्ध आवे उतनी जगह देयराशिको रखकर परस्पर गुणा करनेसे विवक्षित राशिका प्रमाण निकलता है ।

Trans. 420. Any given number (Deya rāśi) raised to the power of the quotient gained by dividing the number of halvings of the desired number (Icchita-rāśi) by the number of halvings of the given number (Deya-Rāśi) is equal to the desired number (Icchita rāśi).

दिण्णच्छेदे णवहिद लोगच्छेदेण पदधणे भजिदे ।

लद्धमिदलोगगुणणं परमावहिचरिम गुणगारो ॥४२१॥

अर्थ- देयराशिके अर्धच्छेदोंका लोकके अर्धच्छेदोंमें भाग देनेसे जो लब्ध आवे उसका विवक्षित संकल्पित धन में भाग देनेसे जो लब्ध आवे उतनी जगह लोकप्रमाणको रखकर परस्पर गुणा करनेसे जो राशि उत्पन्न हो वह विवक्षित पदमें क्षेत्र या कालका गुणकार होता है । ऐसे ही परमावधिके अन्तिम भेदमें भी गुणकार जानना ।

Trans. 421. Divide the number of halvings of the (spatial units of the) universe by the number of halvings of (an innumerable part of an Āvalī) Deya. By the quotient divide the sum of the series (1, 2, 3, 4, 5 etc., upto the term represented by the desired division). Multiply the (spatial units of the) universe, by themselves as many times as the number of this last quotient. (We then) get the multiplier for any division of high Visual knowledge. (The same process will apply in respect of every division) till the last one.

आवलि असंखभागा जहण्ण दव्वस्स होंति पज्जाया ।

कालस्स जहण्णादो असंखगुणहीणमेत्ता हु ॥४२२॥

अर्थ- जघन्य देशावधिके विषयभूत द्रव्यकी पर्याय आवलीके असंख्यातवें भाग प्रमाण है तथापि जघन्य देशावधिके विषयभूत कालका जितना प्रमाण है उससे असंख्यातगुणाहीन जघन्य देशावधिके विषयभूत भावका प्रमाण है

Trans. 422. The modification (Paryāya) of the minimum matter (of the first division of partial visual knowledge is) an innumerable part of an (Āvalī), (but this is) an innumerable foldless than the time of the minimum (i.e., the first division of partial Visual knowledge).

सव्वोहि ति य कमसो आवलि असंखभाग गुणिदकमा ।

दव्वाणं भावाणं पदसंखा सरिसगा होंति ॥४२३॥

अर्थ- देशावधिके जघन्य द्रव्यकी पर्यायरूप भाव, जघन्य देशावधिसे सर्वावधि पर्यन्त आवलीके असंख्यातवें भागसे गुणितक्रम है। अतएव द्रव्य तथा भावके पदोंकी संख्या सदृश है।

Trans. 423. (From the beginning of partial Visual knowledge) upto the Highest Visual knowledge, the process is to multiply each division by an innumerable part of an Āvalī successively (to get the modifications (Bhāva) of the following division). The number of steps is the same as (in the increase of) matter (Dravya), (and) modifications (Bhāva).

सत्तमखिदिम्मि कोसं कोसस्सद्धं पवह्वदे ताव ।

जाव य पढमे णिरये जोयणमेक्कं हवे पुण्णं ॥४२४॥

अर्थ- सातवीं भूमिमें अवधिज्ञानके विषयभूत क्षेत्रका प्रमाण एक कोस है इसके ऊपर अर्ध-अर्ध कोसकी वृद्धि तब तक होती गई है जब तक कि प्रथम नरकमें अवधिज्ञानके विषयभूत क्षेत्रका प्रमाण पूर्ण एक योजन न हो जाये।

Trans. 424. In the seventh (hellish) region, (the spatial extent of visual knowledge is) one Kośa (= 2 miles). It increases by half Kośa (or 1 mile) (in each of the upper hells) till in the first hell it becomes one full (yojana, i.e. 4 Kośas).

तिरिये अवरं ओघो तेजोयंते य होदि उक्कस्सं ।

मणुए ओघं देवे जहाकमं सुणह वोच्छामि ॥४२५॥

अर्थ- तिर्यचोंके अवधिज्ञान जघन्य देशावधिसे लेकर उत्कृष्टताकी अपेक्षा उस भेदपर्यन्त होता है जो कि देशावधिका भेद तैजस शरीरको विषय करता है। मनुष्यगतिमें अवधिज्ञान जघन्य देशावधिसे लेकर उत्कृष्टतया सर्वावधिपर्यन्त होता है। देवगतिमें अवधिज्ञानको यथाक्रमसे कहूँगा, सो सुनो।

Trans. 425. In the sub-humans, (the minimum) matter (knowable is) its minimum and the maximum is the end of the division where electric body is visible; in men all (the divisions from lowest to the highest). About the celestials I shall speak in their order. Listen.

पणुवीस जोयणाइं दिवसंतं च य कुमारभोम्माणं ।

संखेज्जगुणं खेत्तं बहुगं कालं तु जोइसिगे ॥४२६॥

अर्थ- भवनवासी और व्यंतरोके अवधिके क्षेत्रका जघन्य प्रमाण पच्चीस योजन और जघन्य काल कुछ कम एक दिन है और ज्योतिषी देवोंके अवधिका क्षेत्र इससे संख्यातगुणा है और काल इससे बहुत अधिक है।

Trans. 426. (The minimum space and time of Visual knowledge) of residentials and peripatetics is 25 Yojanas and a little less than a day. In the stellars, the space (is) numerable times (of 25 Yojanas); (and) time (is) much more (than less than a day).

असुराणमसंखेज्जा कोडीओ सेसजोइसंताणं ।

संखातीद सहस्सा उक्कस्सोहीण विसओ दु ॥४२७॥

अर्थ- असुरकुमारोंके अवधिका उत्कृष्ट विषयक्षेत्र असंख्यात कोटि योजन है। असुरोंको छोड़कर बाकीके ज्योतिषी देवों तकके सभी भवनत्रिक अर्थात् नौ प्रकारके भवनवासी तथा सम्पूर्ण व्यन्तर और ज्योतिषी इनके अवधिका उत्कृष्ट विषयक्षेत्र असंख्यात हजार योजन है।

Trans. 427. Of the (Asura) (kind of residentials) the maximum spatial extent of Visual (knowledge, is) an innumerable crore (Yojans,) (but) of the remaining (9 kinds of residentials, peripatetics upto) the stellars (it is) innumerable thousand (Yojans).

असुराणमसंखेज्जा वस्सा पुण सेसजोइसंताणं ।
तस्संखेज्जदिभागं कालेण य होदि गियमेण ॥४२८॥

अर्थ- असुरकुमारोंके अवधिके उत्कृष्ट कालका प्रमाण असंख्यात वर्ष है और शेष नौ प्रकारके भवनवासी, व्यन्तर तथा ज्योतिषी इनके अवधिके उत्कृष्ट कालका प्रमाण असुरोंके अवधिके उत्कृष्ट कालके प्रमाणसे नियमसे संख्यातवें भागमात्र है।

Trans. 428. And (the maximum) time necessarily is innumerable years in the case of (Asuras), and a numerable part of it in the case of the others upto the stellars.

भवणतियाणमधोधो थोवं तिरियेण होदि बहुगं तु ।
उहेण भवणवासी सुरगिरिसिहरो ति पस्संति ॥४२९॥

अर्थ- भवनवासी व्यन्तर ज्योतिषी इनके अवधिका क्षेत्र नीचे-नीचे कम होता है, और तिर्यक् रूपसे अधिक होता है तथा भवनवासी देव अपने अवस्थित स्थानसे सुरगिरिके शिखर पर्यंत देखते हैं।

Trans. 429. (The spatial extent of Visual knowledge) of the three, residentials, (Peripatetics and stellars) is less in the lower direction, but (it is) more, horizontally, (but) in the upward direction the residentials see upto the summit of the mount (Meru).

सक्कीसाणा पढमं विदियं तु सणकुमार माहिंदा ।
तदियं तु बह्व-लांतव सुक्कसहस्सारया तुरियं ॥४३०॥

अर्थ- सौधर्म और ऐशानस्वर्गके देव अवधिके द्वारा प्रथम भूमिपर्यन्त देखते हैं। सनत्कुमार, माहेन्द्र स्वर्गके देव दूसरी पृथ्वी तक देखते हैं। ब्रह्म, बह्मोत्तर, लांतव, कापिष्ठ, स्वर्ग वाले देव तीसरी भूमि तक देखते हैं। शुक्र, महाशुक्र, शतार, सहस्रार स्वर्गके देव चौथी भूमि तक देखते हैं।

Trans. 430. Beings in (Saudharma) and (Īśāna) (heavens see) upto (the end of) the first (earth or hell) and in (Sānat-Kumāra) and (Māhendra) upto the second; in Brahma, (Brahmottara), Lāntava (and Kāpiṣṭha) upto the third; in Śukra, (Mahā Śukra, Śātāra and) Sahasrāra, upto the fourth.

आणद-पाणदावासी आरण तह अच्चुदा य पस्संति ।
पंचमखिदिपेरंतं छट्ठिं गेवेज्जगा देवा ॥४३१॥

अर्थ- आनत, प्राणत, आरण, अच्युत स्वर्गके देव पाँचवीं भूमि तक अवधिके द्वारा देखते हैं और त्रैवेयकवासी देव छट्ठी भूमि तक देखते हैं।

Trans. 431. The residents of (the heavens) Ānata, Prānata, Āraṇa and Acyuta see upto the fifth earth; the heavenly beings in the (nine Graiveyakas) upto the sixth.

सव्वं च लोयणांलिं पस्संति अणुत्तरेसु जे देवा ।
सक्खेत्ते य सुकम्मे ख्वगदमणंतभागं च ॥४३२॥

अर्थ- नव अनुदिश तथा पंच अनुत्तरवासी देव सम्पूर्ण लोकनालीको अवधि द्वारा देखते हैं। अवधिके विषयभूत क्षेत्रका जितना प्रदेशप्रचय है उसमेंसे एक एक प्रदेश कम करते जाना चाहिये और अपने-अपने अवधिज्ञानावरण कर्मका जितना द्रव्य है उसमें ध्रुवहारका भाग देते जाना चाहिये किन्तु इस तरहसे अवधि के क्षेत्ररूप प्रदेशप्रचयमें एक-एक प्रदेश कहाँ तक कम करना चाहिये और अवधिज्ञानावरण कर्मद्रव्यमें ध्रुवहारका भाग भी कहाँ तक देते जाना चाहिये, इसीको आगे स्पष्ट करते हैं।

Trans. 432. The heavenly beings in (9 Anudiśas and 5 Anuttaras) see the whole of the universal or mobile channel (Loka or Trasa Nāḍī). And one spatial unit being subtracted from the spatial extent of Visual knowledge, the Karmic molecules of (Visual-knowledge-obscuring Karma) will be divided into an infinite part (and so on till the last spatial unit is reached and then the result of the last division will be the fine matter knowable by that particular Visual knowledge).

कप्पसुराणं सगसगओहीखेत्तं विविस्ससोवचयं ।
 ओही दव्वपमाणं संठाविय ध्रुवहरेण हरे ॥४३३॥
 सगसगखेत्तपदेससलायपमाणं सम्पपदे जाव ।
 तत्थतण चरिमखंडं तत्थतणोहिस्स दव्वं तु ॥४३४॥

अर्थ- कल्पवासी देवोंमें अपने-अपने अवधिके क्षेत्रका जितना-जितना प्रमाण है उसका एक जगह स्थापन कर और दूसरी जगह विस्ससोपचयरहित अवधिज्ञानावरण कर्मरूप द्रव्यका जितना प्रमाण है उसका स्थापन कर; द्रव्यप्रमाणमें ध्रुवहारका भाग देना चाहिये और प्रदेशप्रमाणमें एक कम करना चाहिये। द्रव्यप्रमाणमें ध्रुवहारका एक बार भाग देनेसे लब्ध द्रव्य प्रमाणमें पुनः दूसरी बार ध्रुवहारका भाग देना चाहिये और प्रदेशप्रचयमें एक और कम करना चाहिये। दूसरी बार भाग देनेसे लब्ध द्रव्यप्रमाणमें तीसरी बार ध्रुवहारका भाग देना चाहिये और प्रदेशप्रचयमें तीसरी बार एक कम करना चाहिये। इस प्रकार उत्तरोत्तर लब्ध द्रव्यप्रमाणमें ध्रुवहारका भाग देते जाना चाहिये और प्रदेशप्रचयमें एक-एक कम करते जाना चाहिये। इस तरहसे एक-एक प्रदेश कम करते-करते जब सम्पूर्ण प्रदेशप्रचयरूप शलाका राशि समाप्त हो जाये वहाँ वहाँ तक करते जाना चाहिये। इस तरहसे प्रदेशप्रचयमें एक-एक प्रदेश कम करते करते और द्रव्यप्रमाणमें ध्रुवहारका भाग देते-देते जहाँ पर प्रदेशप्रचय समाप्त हो वहाँ पर द्रव्यका जो स्कन्ध शेष रहे उतने बड़े स्कन्धको अवधिके द्वारा वे कल्पवासी देव जानते हैं जिनके अवधिके विषयभूत क्षेत्रका प्रदेशप्रचय विवक्षित हो।

Trans. 433-434. Having takne down the spatial units of the extent (of the Visual knowledge) of each of the heavenly beings in turn and the number of Karmic molecules of Visual-knowledge-obscuring Karma without their natural attendant stoms (Visrasopacaya), (the molecules) should be divided by the common ratio (Dhruvahāra) as many times as the number of the spatial units of each group in turn are exhausted. The last part in each is the subject matter of the Visual knowledge corresponding to each of them.

सोहम्मीसाणाणमसंखेज्जाओ हु वस्सकोडीओ ।
 उवरिमकप्पचउक्के पल्लासंखेज्जभागे दु ॥४३५॥
 तत्तो लांतवकप्पप्पहुदी सव्वत्थसिद्धिपेरंतं ।
 किंचूणपल्लमेत्तं कालपमाणं जहाजोग्गं ॥४३६॥

अर्थ- सौधर्म और ईशानस्वर्गके देवोंके अवधिका काल असंख्यात कोटि वर्ष है। इसके ऊपर सनत्कुमार, माहेन्द्र, ब्रह्म, ब्रह्मोत्तर कल्पवाले देवोंके अवधिका काल यथायोग्य पल्यका असंख्यातवाँ भाग है। इसके ऊपर लान्तव स्वर्गसे लेकर सर्वार्थसिद्धि पर्यन्त वाले देवोंके अवधिका काल यथायोग्य कुछ कम पल्य प्रमाण है।

Trans. 435-436. (The duration of time of the visual knowledge) of the heavenly beings in Saudharma and Īśāna is innumerable crore years, in the upper four heavens (Sānat-kumāra, Māhendra, Brahma and Brahmottara), an innumerable part of a Palya. Then from the heaven (Lāntava) up to Sarvārtha-siddhi, the measure of time is little less than one Palya with proper variations.

जोइसियंताणोहीखेत्ता उता ण होति घणपदरा ।
 कप्पसुराणं च पुणो विसरित्थं आयदं होदि ॥४३७॥

अर्थ- भवनवासी, व्यन्तर, ज्योतिषी इनके अवधिके क्षेत्रका प्रमाण जो पहले बताया गया है वह विसदृश है बराबर घनरूप नहीं है। उनकी लम्बाई चौड़ाई और ऊँचाईका प्रमाण आगममें सर्वथा समान नहीं बताया गया है। तिर्यक् अधिक और ऊर्ध्वाधः कम है। कल्पवासी देवोंके अवधिका क्षेत्र आयतचतुरस्र (चौकोर) किन्तु लम्बाईमें ऊर्ध्वाधः अधिक और चौड़ाईमें अर्थात् तिर्यक् थोड़ा है। शेष मनुष्य, तिर्यच, नारकी इनके अवधिका विषयभूत क्षेत्र बराबर घनरूप है।

Trans. 437. The said spatial extent of the visual (knowledge) of (residential, peripatetics) up to the stellars is not regular cube; and of the heavenly beings (it is) of unequal length, (i.e., oblong). And (in men, subhuman and hellish beings the spatial extent is cubic).

चिंतियमचिंतियं वा अद्धं चिंतियमणेय भेयगयं ।

मणपज्जवं ति उच्चइ जं जाणइ तं खु णरलोए ॥४३८॥

अर्थ- जिसका भूतकालमें चिन्तवन किया हो, अथवा जिसका भविष्यत्कालमें चिन्तवन किया जायगा, अथवा अर्धचिन्तत- वर्तमानमें जिसका चिन्तवन किया जा रहा है, इत्यादि अनेक भेदस्वरूप दूसरेके मनमें स्थित पदार्थ जिसके द्वारा जाना जाये उस ज्ञानको मनःपर्यय कहते हैं। यह मनःपर्ययज्ञान मनुष्यक्षेत्रमें ही उत्पन्न होता है, बाहर नहीं।

Trans. 438. That is called the mental (knowledge, Manah Paryaya), which knows whatever has, about various (matters), been thought (in the past), or has not been thought (i.e. will be thought in the

future), or is half thought (by other rational souls) within the human region, ($2\frac{1}{2}$ continents upto the mountain Mānuṣottara).

मणपज्जवं च दुविहं उजुविउलमदि ति उजुमदी तिविहा ।

उजुमणवयणे काए गदत्थविसया ति णियमेण ॥४३९॥

अर्थ- सामान्यकी अपेक्षा मनःपर्यय एक प्रकार का है और विशेष भेदोंकी अपेक्षा दो प्रकार का है- एक ऋजुमति दूसरा विपुलमति। ऋजुमतिके भी तीन भेद हैं- ऋजुमनोगतार्थविषयक, ऋजुवचनगतार्थविषयक और ऋजुकायगतार्थविषयक। परकीयमनोगत होने पर भी जो सरलतया मन, वचन, कायके द्वारा किया गया हो ऐसे पदार्थको विषय करने वाले ज्ञानको ऋजुमति कहते हैं। अतएव सरल मन वचन कायके द्वारा किये हुए पदार्थको विषय करनेकी अपेक्षा ऋजुमतिके पूर्वोक्त तीन भेद हैं।

Trans. 439. And mental knowledge is of two kinds, simple (mental knowledge Rjumati), and complex (mental knowledge Vipulamati). Simple is of 3 kinds necessarily, (as knowing) subject matters of the simple activity of mind, speech and body (of others).

विउलमदी वि य छद्धा उजुगाणुजुवयणकायचित्तगयं ।

अत्थं जाणदि जह्मा सदत्थगया हु ताणत्था ॥४४०॥

अर्थ- विपुलमतिके छह भेद हैं- ऋजु मन, वचन, कायके द्वारा किये गये परकीय मनोगत पदार्थोंको विषय करनेकी अपेक्षा तीन भेद, और कुटिलमन, वचन, कायके द्वारा किये हुए परकीय मनोगत पदार्थोंको विषय करनेकी अपेक्षा तीन भेद। ऋजुमति तथा विपुलमति मनःपर्ययके विषय शब्दगत तथा अर्थगत दोनों ही प्रकारके होते हैं।

Trans. 440. And complex (Vipulamati) (is) of six kinds, as knowing the subject matter of the simple and complex (activity) of body, mind, and speech (of others). And (all six kinds) are stimulated by question, or (by look) at any part (of the questioner).

तियकाल विसयरुविं चिंतियं वट्टमाण जीवेण ।

उजुमदिणाणं जाणदि भूदभविस्सं च विउलमदी ॥४४१॥

अर्थ- वर्तमान जीवके द्वारा चिन्त्यमान- वर्तमानमें जिसका चिंतवन किया जा रहा है ऐसे त्रिकाल विषयक रूपी पदार्थको ऋजुमति मनःपर्ययज्ञान जानता है और विपुलमतिज्ञान भूत, भविष्यत्को भी जानता है।

Trans. 441. Simple mental knowledge knows the material objects of (all) the three times (past, present and future), thought of by (any) soul in the present. Complex (mental knowledge) knows also what (has been thought of) in the past and (will be thought of) in the future.

सव्वंग अंगसंभव चिण्हादुप्पज्जदे जहा ओही ।

मणपज्जवं च दव्वमणादो उप्पज्जदे णियमा ॥४४२॥

अर्थ- जिस प्रकार अवधिज्ञान समस्त अंगसे अथवा शरीरमें होने वाले शंखादि शुभ चिन्होंसे उत्पन्न होता है उसी तरह मनःपर्ययज्ञान जहाँ पर द्रव्यमन होता है उन्हीं प्रदेशोंसे उत्पन्न होता है।

Trans. 442. As the visual (knowledge) rises (by the destruction-subsidence of the matter of visual-knowledge-obscuring Karma) in the whole body, or in the marks (conch, etc.) on the body, in the very same manner, mental knowledge rises (from the destruction subsidence of mental-knowledge-obscuring-Karma) in the material mind (organ).

हिदि होदि हु दव्वमणं वियसिय अट्टच्छदारविंदं वा ।

अंगोवंगुदयादो मणवग्गणखंधदो णियमा ॥४४३॥

अर्थ- अंगोपांगनामकर्मके उदयसे मनोवर्गणाके स्कन्धोंके द्वारा हृदयस्थानमें नियमसे विकसित आठ पांखड़ीके कमलके आकारमें द्रव्यमन उत्पन्न होता है।

Trans. 443. And material mind is verily produced in the heart, from the coming together of mind molecules, like a full blown lotus with eight petals, by the operation of the limb and minor-limb (aṅgopāṅga sub-class of the body-making-Karma).

णोइंदियं ति सण्णा तस्स हवे सेस इंदियाणं वा ।

वत्तत्ताभावादो मणमणपज्जं च तत्थ हवे ॥४४४॥

अर्थ- इस द्रव्यमनकी नोइन्द्रिय संज्ञा भी है क्योंकि दूसरी इन्द्रियोंकी तरह यह व्यक्त नहीं है। इस द्रव्यमन के निमित्तसे भावमन तथा मनःपर्ययज्ञान उत्पन्न होता है।

Trans. 444. It (mind) is named "No-Indriya," quasi-sense, because of the absence of (its external) manifestation, like other sense organs. (It) is there, (in the mind), that mental activity and mental-knowledge arise.

मणपज्जवं च णाणं सत्तसु विरदेसु सत्तइट्ठीणं ।

एगादिजुदेसु हवे वट्ठंत विसिद्ध चरणेसु ॥४४५॥

अर्थ- प्रमत्तादि क्षीणकषायपर्यन्त सात गुणस्थानोंमेंसे किसी एक गुणस्थान वालेके, इस पर भी सात ऋद्धियोंमेंसे कमसे कम किसी भी एक ऋद्धिको धारण करने वालेके, ऋद्धिप्राप्तमें भी वर्धमान तथा विशिष्ट चारित्रिको धारण करने वाले के ही यह मनःपर्ययज्ञान उत्पन्न होता है।

Trans. 445. And mental knowledge appears in saints with one or more of the seven super-natural powers (Rddhis, namely Buddhi, Tapa, Vikriyā, Auśadha, Rasa, Bala, Akṣīṇa) and with ever increasing lofty conduct, in the seven (spiritual stages, from the 6th to 12th).

इंदिय णोइंदिय जोगादिं पेक्खित्तु उजुमदी होदि ।

णिरवेक्खिय विउलमदी ओहिं वा होदि णियमेव ॥४४६॥

अर्थ- अपने तथा परके स्पर्शानादि इन्द्रिय और मन तथा मनोयोग, काययोग, वचनयोगकी अपेक्षासे ऋजुमति मनःपर्ययज्ञान उत्पन्न होता है। अर्थात् वर्तमानमें विचारप्राप्त स्पर्शनादिके विषयोंको ऋजुमति जानता है किन्तु विपुलमति अवधिकी तरह इनकी अपेक्षाके विना ही नियमसे होता है।

Trans. 446. Simple mental (knowledge) arises at the initiation of the (5) senses, the quasi-sense (i.e., mind, or vibratory activity (of the soul through mind, body and speech of one self or of another). Complex mental (knowledge) and visual knowledge necessarily arise without any initiation.

पडिवादी पुण पढमा अण्णडिवादी हु होदि विदिया हु ।

सुद्धो पढमो बोहो सुद्धतरो विदियबोहो हु ॥४४७॥

अर्थ- ऋजुमति प्रतिपाती है क्योंकि ऋजुमतिवाला उपशमक तथा क्षपक दोनों श्रेणियोंपर चढ़ता है। उसमें यद्यपि क्षपककी अपेक्षा ऋजुमति वालेका पतन नहीं होता; तथापि उपशमश्रेणिकी अपेक्षा चारित्र मोहनीय कर्मका उद्रेक हो जानेके कारण कदाचित् उसका पतन भी सम्भव है। विपुलमति सर्वथा अप्रतिपाती है तथा ऋजुमति शुद्ध है और विपुलमति इससे भी शुद्ध होता है। अर्थात् दोनोंमें विपुलमतिकी विशुद्धि, प्रतिपक्षीकर्मके क्षयोपशमविशेषके कारण अधिक है।

Trans. 447. And the first (i.e., simple mental knowledge is) separable (Pratipāti), but the second (complex mental knowledge is) inseparable (Apratipāti). The first knowledge (is) clear, but the second knowledge (is) clearer.

परमणसिद्धियमद्वं ईहामदिणा उजुद्वियं लहिय ।

पच्छा पच्चक्खेण य उजुमदिणा जाणदे णियमा ॥४४८॥

अर्थ- ऋजुमति वाला दूसरेके मनमें सरलताके साथ स्थित पदार्थको पहले ईहा मतिज्ञानके द्वारा जानता है, पीछे प्रत्यक्ष रूपसे नियमसे ऋजुमतिज्ञानके द्वारा जानता है।

Trans. 448. (The saint) having directed his attention to the material object located simply in the mind of another, through conception (the Īhā kind of) sensitive knowledge verily knows (that object) directly by means of simple mental (knowledge).

चिंतियमचिंतियं वा अद्धं चिंतियमणेय भेयगयं ।

ओहिं वा विउलमदी लहिऊण विजाणए पच्छा ॥४४९॥

अर्थ- चिन्तित, अचिन्तित, अर्धचिन्तित इस तरह अनेक भेदोंको प्राप्त दूसरेके मनोगत पदार्थको अवधिकी तरह विपुलमति प्रत्यक्ष रूपसे जानता है।

Trans. 449. Complex mental (knowledge) like visual (knowledge) being (directly) inclined (to it) knows whatever has been thought (in the past) or has not been thought (i.e., will be thought in the future) or is half thought (about matter) of many kinds.

द्वं खेत्तं कालं भावं पडि जीवलविख्यं रूविं ।

उजुविउलमदी जाणदि अवरवरं मज्झिमं च तहा ॥४५०॥

अर्थ- द्रव्य, क्षेत्र, काल, भावमेंसे किसीकी भी अपेक्षासे जीवके द्वारा चिंतित रूपी (पुद्गल) द्रव्यको तथा उसके सम्बन्धसे जीवद्रव्यको भी ऋजुमति और विपुलमति जघन्य, मध्यम, उत्कृष्ट तीन-तीन प्रकारसे जानते हैं।

Trans. 450. In respect of matter (Dravya), spatial extent (Kṣetra), time (Kāla), and condition (Bhāva) simple (and) complex mental (knowledge) know all what is thought of by any soul (through mind) about matter (and mundane soul). (And each of these two kinds of knowledge is of three degrees), minimum, maximum and medium.

अवरं दव्वमुरालिय सरीरणिज्जिण्ण समयबद्धं तु ।

चक्खिंदिय णिज्जरणं उक्खस्सं उजुमदिस्स हवे ॥४५१॥

अर्थ- ऋजुमतिका जघन्य द्रव्य औदारिक शरीरके निर्जीर्ण समयप्रबद्धप्रमाण है तथा उत्कृष्ट द्रव्य चक्षुरिन्द्रियके निर्जरा द्रव्य प्रमाण है।

Trans. 451. (The measure of) minimum and maximum subject matter of simple mental (knowledge) is (respectively) the unit of bondage (Samaya Prabaddha) shed from the physical body and the matter shed from the organ of sight in one instant).

मणद्ववगणाणमणतिम भागेण उजुग उक्कस्सं ।

खंडिदमेत्तं होदि हु विउलमदिस्सावरं दव्वं ॥४५२॥

अर्थ- मनोद्रव्य वर्गणाके जितने विकल्प है, उसमें अनन्तका भाग देनेसे लब्ध एक भागप्रमाण ध्रुवहारका, ऋजुमतिके विषयभूत उत्कृष्ट द्रव्यप्रमाणमें भाग देनेसे जो लब्ध आवे उतने द्रव्यस्कन्धको विपुलमति जघन्यकी अपेक्षासे जानता है।

Trans. 452. The minimum subject matter of complex mental knowledge is the part obtained by dividing the maximum subject matter of simple mental knowledge by the (common ratio Dhruvahāra which is) an infinite part of the number of divisions in mind molecules.

अट्टण्हं कम्माणं समयपबद्धं विविस्ससोवचयं ।

ध्रुवहारेणिविवारं भजिदे विदियं हवे दव्वं ॥४५३॥

अर्थ- विस्ससोपचयसे रहित आठ कर्मोंके समयप्रबद्धका जो प्रमाण है उसमें एकवार ध्रुवहारका भाग देनेसे जो लब्ध आवे उतना विपुलमतिके द्वितीय द्रव्यका प्रमाण होता है।

Trans. 453. (And) the unit of bondage (Samaya Prabaddha) of eight Karmas (i.e., their molecules) without the naturally attendant atoms (Visrasopacaya,) divided once by the common ratio (Dhruvahāra) is (its) next (division as regards) subject-matter.

तव्विदियं कप्पाणमसंखेज्जाणं च समयसंखसमं ।

ध्रुवहारेणवहरिदे होदि हु उक्कस्सयं दव्वं ॥४५४॥

अर्थ- असंख्यात कल्पोंके जितने समय हैं उतनी वार विपुलमतिके द्वितीय द्रव्यमें ध्रुवहारका भाग देनेसे विपुलमतिके उत्कृष्ट द्रव्यका प्रमाण निकलता है।

Trans. 454. (And) this second division being divided by the common ratio as many times as there are instants in innumerable Kalpas. (of 20 crore × crore sāgaras each) is the maximum subject matter (of complex mental knowledge).

गाउयपुधत्तमवरं उक्कस्सं होदि जोयणपुधत्तं ।

विउलमदिस्स य अवरं तस्स पुधत्तं वरं खु

ण ा र ल ा य । । ४ ५ ५ । ।

अर्थ- ऋजुमतिका जघन्य क्षेत्र गव्यूतिपृथक्त्व-दो तीन कोस और उत्कृष्ट योजनपृथक्त्व-सात आठ योजन है। विपुलमतिका जघन्य क्षेत्र पृथक्त्वयोजन-आठ नव योजन तथा उत्कृष्ट क्षेत्र मनुष्यलोक प्रमाण है।

Trans. 455. The minimum and maximum (spatial extent of simple mental knowledge, respectively) is 2 or 3 (Pr̥thaktva) Kośas, and 7 or 8 (Pr̥thaktva) Yojanas. And the minimum and maximum of complex mental (knowledge) is respectively 8 or 9 (Pr̥thaktva) Yojanas and the human region ($2\frac{1}{2}$ continents).

णरलोएत्ति य वयणं विक्खंभ णियामयं ण वट्टस्स ।

जह्मा तग्घणपदरं मणपज्जव खेत्तमुद्धिदं ॥४५६॥

अर्थ- मनःपर्ययके उत्कृष्ट क्षेत्रका प्रमाण जो नरलोकप्रमाण कहा है सो यहाँ नरलोक इस शब्दसे मनुष्यलोकका विष्कम्भ ग्रहण करना चाहिये न कि वृत्त, क्योंकि मानुषोत्तर पर्वतके बाहर चारों कोणोंमें स्थित तिर्यच अथवा देवोंके द्वारा चित्तित पदार्थको भी विपुलमति जानता है; कारण यह कि मनःपर्यय ज्ञानका उत्कृष्ट क्षेत्र ऊँचाईमें कम होते हुए भी समचतुरस्र घनप्रतररूप पैतालीस लाख योजनप्रमाण है।

Trans. 456. The phrase, human region indicates the (square of the) diameter and not the circumference, because the spatial extent of the mental knowledge is said to be cubic dimensions with a square base, (but, smaller height).

दुर्गतिगमना हु अवरं सत्तद्भवना हवन्ति उक्कस्सं ।

अड णवमना हु अवरमसंखेज्जं विउलउक्कस्सं ॥४५७॥

अर्थ- कालकी अपेक्षासे ऋजुमति का विषयभूत जघन्य काल अतीत और अनागत दो तीन भव तथा उत्कृष्ट सात आठ भव है। इसी प्रकार विपुलमति का जघन्य काल अतीत और अनागत आठ नौ भव तथा उत्कृष्ट पत्यके असंख्यातवें भागप्रमाण है।

Trans. 457. (As regards time, past and future), the minimum and maximum (of simple mental knowledge is respectively 2 or 3 incarnations, and 7 or 8 incarnations; and the minimum and maximum of complex mental knowledge is respectively, 8 or 9 incarnations, and innumerable part (of a Palya.)

आवलि असंखभागं अवरं च वरं च वरमसंखगुणं ।

तत्तो असंखगुणिदं असंखलोगं तु विउलमदी ॥४५८॥

अर्थ- भावकी अपेक्षासे ऋजुमति का जघन्य तथा उत्कृष्ट विषय आवलीके असंख्यातवें भाग प्रमाण है; तथापि जघन्य प्रमाणसे उत्कृष्ट प्रमाण असंख्यातगुणा है। विपुलमति का जघन्य प्रमाण ऋजुमतिके उत्कृष्ट विषयसे असंख्यातगुणा है और उत्कृष्ट विषय असंख्यात लोकप्रमाण है।

Trans. 458. (In respect of modifications, Bhāva) the minimum (of simple mental knowledge is) an innumerable part of an Āvalī, and the maximum is (also) an innumerable part of an (Āvalī), but innumerable times (of the minimum). And (the minimum and maximum of) complex mental knowledge is respectively innumerable times the (maximum of simple mental knowledge,) and the innumerable × innumerable times the spatial units of universe.

मज्झिम दव्वं खेत्तं कालं भावं च मज्झिमं णाणं ।

जाणदि इदि मणपज्जवणाणं कहिदं समासेण ॥४५९॥

अर्थ- इस प्रकार द्रव्य, क्षेत्र, काल, भाव का जघन्य और उत्कृष्ट प्रमाण बताया। इनके मध्यके जितने भेद हैं उनको मनःपर्ययज्ञानके मध्यम भेद विषय करते हैं। इस तरह संक्षेपसे मनःपर्ययज्ञानका निरूपण किया।

Trans. 459. The intermediate (divisions of mental) knowledge know the intermediate divisions of matter, space, time and modification. — Thus mental knowledge has been described in brief.

संपुण्णं तु समगं केवलमसवत्तं सव्वभावगयं ।

लोयालोय वितिमिरं केवलणाणं मुणेदव्वं ॥४६०॥

अर्थ- यह केवलज्ञान, सम्पूर्ण, समग्र, केवल, प्रतिपक्षरहित, सर्वपदार्थगत और लोकालोकमें अन्धकार रहित होता है।

Trans. 460. Perfect (kevala) knowledge should be known to be full, all powerful, independent (of senses), free from knowing by successive gradations, comprehending all modifications, and without darkness (or ignorance) throughout universe and non-universe.

चदुग्गदिमदिसुदबोहा पल्लासंखेज्जया हु मणपज्जा ।

संखेज्जा केवलिणो सिद्धादो होंति अतिरित्ता ॥४६१॥

अर्थ- चारों गति सम्बन्धी मतिज्ञानियों का अथवा श्रुतज्ञानियों का प्रमाण पत्यके असंख्यातवें भागप्रमाण है, मनःपर्ययवाले कुल संख्यात है तथा केवलियों का प्रमाण सिद्धराशिसे कुछ अधिक है।

Trans. 461. The number of souls in the four conditions of existence with (right) sensitive and scriptural knowledge is an innumerable part of a Palya; with mental knowledge (is) numerable; with perfect knowledge is the number of Liberated souls and the others (i.e., the Arhantas in 13th and 14th stages).

ओहिरहिदा तिरिक्खा मदिणाणि असंखभागगा मणुआ ।

संखेज्जा हु तदूणा मदिणाणी ओहिपरिमाणं ॥४६२॥

अर्थ- अवधिज्ञानरहित तिर्यच मतिज्ञानियोंकी संख्याके असंख्यातवें भाग प्रमाण है और अवधिज्ञानरहित मनुष्य संख्यात हैं तथा इन दोनों ही राशियोंको मतिज्ञानियोंके प्रमाणमेंसे घटाने पर जो शेष रहे उतना ही अवधिज्ञानियोंका प्रमाण है।

Trans. 462. The number (of souls) with (right) visual knowledge (is) the number of souls with right sensitive knowledge minus the sub-humans and humans without visual-knowledge, (and these two) are respectively, an innumerable part of the souls with (right) sensitive knowledge and numerable.

पल्लासंखघणंगुल हदसेणितिरिक्खगदि विभंगजुदा ।

णरसहिदा किंचूणा चदुगदि वेभंग परिमाणं ॥४६३॥

अर्थ- पल्यके असंख्यातवें भागमें गुणित घनांगुलका और जगच्छ्रेणीका गुणा करनेसे जो राशि उत्पन्न हो उतने तिर्यच, और संख्यात मनुष्य, घनांगुलके द्वितीय वर्गमूलसे गुणित जगच्छ्रेणी प्रमाण नारकी तथा सम्यग्दृष्टियोंके प्रमाणसे रहित सामान्य देवराशि, इन चारों राशियोंके जोड़नेसे जो प्रमाण हो उतने विभंगज्ञानी है।

Trans. 463. The number of souls with wrong visual knowledge in the four conditions of existence (is the total of) (1) subhumans with wrong visual knowledge, (whose number is) an innumerable part of a Palya multiplied by a cubic finger, and multiplied by a basic line of universe (i.e. 7 Rājus); (2) (numerable) human beings, (3) (hellish beings whose number is the basic line of universe multiplied by the second square root of a cubic finger); (4) (and the celestial beings); minus some (viz. human, hellish, celestial beings with right belief).'

सण्णाण रासि पंचय परिहीणो सव्व जीवरासी हु ।

मदिसुद अण्णाणीणं पत्तेयं होदि परिमाणं ॥४६४॥

अर्थ- पाँच सम्यग्ज्ञानी जीवोंके प्रमाणको (केवलियोंके प्रमाणसे कुछ अधिक) सम्पूर्ण जीवराशिके प्रमाणमेंसे घटानेपर जो शेष रहे उतने कुमतिज्ञानी तथा उतने ही कुश्रुतज्ञानी जीव हैं।

Trans. 464. The total number of mundane souls minus the total of the souls with five kinds of right knowledge is the number of souls, with wrong sensitive or wrong scriptural knowledge, either.

वदसमिदिकसायाणं दंडाण तहिंदियाण पंचण्हं ।

धारणपालण णिग्गह चागजओ संजमो भणिओ ॥४६५॥

अर्थ- अहिंसा, अचौर्य, सत्य, शील (ब्रह्मचर्य) अपरिग्रह इन पाँच महाव्रतोंका धारण करना; ईर्या, भाषा, एषणा, आदाननिपेक्षण, उत्सर्ग इन पाँच समितियोंका पालना; क्रोधादि चार प्रकारकी कषायोंका निग्रह करना; मन, वचन, कायरूप दण्डका त्याग तथा पाँच इन्द्रियोंका जय इसको संयम कहते हैं। अतएव संयमके पाँच भेद हैं।

Trans. 465. Observance of vows. (the five vratas, non-injury etc.), preservation of carefulness (of 5 kinds, in walking, etc., Samiti), sub-duing of passions (anger etc., the four Kaṣāyas), renunciation of activities (of mind, body and speech, Danda) and the conquest of five senses (Indriya) is called control (Samyama).

बादरसंजलणुदये सुहुमुदये समखये य मोहस्स ।
संजमभावो णियमा होदि त्ति जिणेहिं णिदिद्वं ॥४६६॥

अर्थ- बादर संज्वलनके उदयसे अथवा सूक्ष्मलोभके उदयसे और मोहनीय कर्मके उपशमसे अथवा क्षयसे नियमसे संयमरूप भाव उत्पन्न होते हैं ऐसा जिनेन्द्रदेवने कहा है।

Trans. 466. By the operation of intense perfect right-conduct-preventing passion, (Bādara Saṁjvalana Kaṣāya in the 6th, 7th, 8th and 9th spiritual stages); and by the operation of mild (Sūkṣma greed in the 10th stage); and by the subsidence (in the 11th) and destruction (in the 12th spiritual stage) of the deluding (moha-Karma), verily rises the thought activity of control (Saṁyama). It has been said by the Conquerors.

बादर संजलणुदये बादरसंजमतियं खु परिहारो ।
पमदिदरे सुहुमुदये सुहुमो संजमगुणो होदि ॥४६७॥

अर्थ- जो संयमके विरोधी नहीं हैं ऐसे बादर संज्वलन कषायके देशघाति स्पर्धकोंके उदयसे सामायिक, छेदोपस्थापना, परिहारविशुद्धि ये तीन संयम-चारित्र होते हैं। इनमेंसे परिहारविशुद्धि संयम तो प्रमत्त और अप्रमत्तमें ही होता है, किन्तु सामायिक और छेदोपस्थापना प्रमत्तादि अनिवृत्तिकरणपर्यन्त होते हैं। सूक्ष्मकृष्टिको प्राप्त संज्वलन लोभके उदयसे सूक्ष्मसांपराय गुणस्थानवर्ती संयम होता है।

Trans. 467. By the operation of intense perfect-right-conduct preventing (Bādara Saṁjvalana passion), rough (Bādara) control (i.e., grosser control is) of 3 (kinds i.e., equanimity, (Sāmāyika), recovery of equanimity after downfall, (Chedopasthāpanā, and pure-absolute-non-injury (Parihāra Viśuddhi), but pure-absolute-non-injury (Parihāra viśuddhi is only) in (the 6th and 7th stages of imperfect (Pramatta) and perfect (Apramatta vow). By the operation of mild (Sūkṣma greed passion) rises the quality (Guṇa) of control (with) slightest, (delusion i.e. all but entire freedom from passion (Sūkṣma Sāmparāya).

जहखादसंजमो पुण उवसमदो होदि मोहणीयस्स ।
खयदो वि य सो णियमा होदित्ति जिणेहिं णिदिद्वं ॥४६८॥

अर्थ- यथाख्यात संयम नियमसे मोहनीय कर्मके उपशम या क्षयसे होता है ऐसा जिनेन्द्रदेवने कहा है।

Trans. 468. And Ideal and passionless (Yāthākhyāta) control rises by the subsidence of deluding (Mohaniya Karma in the 11th stage). And the same rises necessarily also by the destruction (of the deluding Karma in the 12th stage). It has been said by the Conquerors.

तदियकसायुदयेण य विरदाविरदो गुणो हवे जुगवं ।
विदियकसायुदयेण य असंजमो होदि णियमेण ॥४६९॥

अर्थ- तीसरी प्रत्याख्यानवरण कषायके उदयसे विरताविरत, देशविरत, मिश्रविरत-संयमासंयम नामका पाँचवाँ गुणस्थान होता है और दूसरी अप्रत्याख्यान कषायके उदयसे असंयम (संयमका अभाव) होता है।

Trans. 469. And by the operation of the third (i.e., total-vow-preventing, Pratyākhyānā-vāraṇa) passion (there) rises the quality of vows and vowlessness simultaneously (i.e., the partial control Deśa-saṁyama in the 5th stage of partial-vow, Deśa virata). And by the operation of second (i.e., partial-vow-preventing. Apratyākhyānā-vāraṇa) passion (there) is necessarily non-control (Asaṁyama).

संगहिय सयल संजममेयजमणुत्तरं दुरवगम्मं ।
जीवो समुव्वहंतो सामाइय संजमो होदि ॥४७०॥

अर्थ- उक्त व्रतधारण आदिक पाँच प्रकारके संयममें संग्रह नयकी अपेक्षासे एकयम भेद रहित होकर अर्थात् अभेद रूपसे मैं सर्व सावधका त्यागी हूँ इस तरहसे जो सम्पूर्ण सावधका त्याग करना इनको सामायिक संयम कहते हैं। यह संयम अनुपम है तथा दुर्लभ है और दुर्धर्ष है इसके पालन करनेवालेको सामायिक संयमी कहते हैं।

Trans. 470. Having adopted all (the 5, observance of vows, etc., constituents of) control maintaining a constant unity of restraint (Ekayama), (which is) unparalleled and exceedingly difficult to obtain, the soul is with equanimity control (Sāmāyika Saṁnyama).

छेतूण य परियायं पोराणं जो ठवेइ अप्पाणं ।
पंचजमे धम्मे सो छेदोवद्वावगो जीवो ॥४७१॥

अर्थ- प्रमादके निमित्तसे सामायिकादिसे च्युत होकर जो सावध क्रियाके करनेरूप सावध पर्याय होती है उसका प्रायश्चित्त विधिके अनुसार छेदन करके जो जीव अपनी आत्माको व्रतधारणादिक पाँच प्रकारके संयम रूप धर्ममें स्थापन करता है उसको छेदोपस्थापनसंयमी कहते हैं।

Trans. 471. Having pierced through the old condition (of censurable conduct into which it fell from its condition of equanimity, Sāmāyika) the soul, who fixes himself in the observance of the (5 sorts of) control, is with recovered equanimity (Chedopasthāpanā).

पंचसमिदो तिगुत्तो परिहरइ सदा वि जो हु सावज्जं ।
पंचेक्कजमो पुरिसो परिहार य संजदो सो हु ॥४७२॥

अर्थ- पाँच प्रकारके संयमियोंमेंसे सामान्य अभेदरूपसे अथवा विशेष भेद रूपसे सर्वसावधका सर्वथा परित्याग करने वाला जो जीव पाँच समिति और तीन गुप्तिको धारणकर उनसे युक्त रहकर सदा सावधका त्याग करता है उस पुरुषको परिहारविशुद्धि संयमी कहते हैं। अर्थात् जो इस तरहसे सावधसे सदा दूर रहता है वह जीव पाँच प्रकारके संयमियोंमें तीसरे परिहारविशुद्धि संयमका धारक माना जाता है।

Trans. 472. The lofty soul (Puruṣa) who with 5 (kinds of) carefulness (Samiti and 3 kinds of) restraint (Gupti always does give up the entirely censurable conduct (of injury, etc.,) and maintains a constant unity of 5 (constituents of) restraint is certainly the possessor of pure-and-absolute-non-injury-control (Parihāra Viśuddhi Saṁnyama).

तीसं वासो जम्मे वासपुधत्तं खु तित्थयरमूले ।
पच्चक्खाणं पढिदो संझूणदुगाउय विहारो ॥४७३॥

अर्थ- जन्मसे लेकर तीस वर्ष तक सदा सुखी रहकर पुनः दीक्षा ग्रहण करके श्री तीर्थकर भगवानके पादमूलमें आठ वर्ष तक प्रत्याख्यान नामक नौवें पूर्वका अध्ययन करने वाले जीवके यह संयम होता है इस संयम वाला जीव तीन संध्याकालोंको छोड़कर प्रतिदिन दो कोस पर्यन्त गमन करता है, रात्रिको गमन नहीं करता और इसके वर्षाकालमें गमन करने का या न करने का कोई नियम नहीं है।

Trans. 473. (He who having lived happily for) thirty years from birth (and then having renounced the world), has studied the (Pratyāhkyāna) (the 9th Pūrva), for 8 years (Pṛthaktva) at the feet of a Tīrthānkara (is the saint with pure-and absolute-non-injury and) except at the (three) union points of time (Sandhyā i.e., dawn, noon, and sunset and at night) travels (daily a distance of) 2 Kośas.

अणुलोहं वेदंतो जीवो उवसामगो व खवगो वा ।
सो सुहुमसांपराओ जहखादेणूणओ किंचि ॥४७४॥

अर्थ- जिस उपशमश्रेणी वाले अथवा क्षपकश्रेणी वाले जीवके अणुमात्र लोभ-सूक्ष्मकृष्टिको प्राप्त लोभ कषायके उदयका अनुभव होता है उसको सूक्ष्मसांपरायसंयमी कहते हैं। इसके परिणाम यथाख्यात चारित्रवाले जीवके परिणामोंसे कुछ ही कम होते हैं क्योंकि यह संयम दशवें गुणस्थानमें होता है और यथाख्यात संयम ग्यारहवेंसे शुरू होता है।

Trans. 474. The soul on the subsidential (Upaśāmaka) or destructive (Kṣapaka ladder in the 10th spiritual stage) being subject to the operation of the slightest greed (sub-class of deluding-Karma, Moha) has (control, saṁnyama which is characterised by slightest delusion), all but entire freedom from passion (Sūkṣma-Sāmparāya). This (is) just slightly less than ideal and passionless (Yathākhyāta control).

उवसंतेखीणे वा असुहे कम्मम्मि मोहणीयम्मि ।

छदुमट्ठो व जिणो वा जहखादो संजदो सो दु ॥४७५॥

अर्थ- अशुभरूप मोहनीय कर्मके सर्वथा उपशम हो जानेसे ग्यारहवें गुणस्थानवर्ती जीवोंके और सर्वथा क्षीण हो जानेसे बारहवें गुणस्थानवर्ती जीवोंके तथा तेरहवें चौदहवें गुणस्थानवाले जीवोंके बथाख्यात संयम होता है।

Trans. 475. A non-omniscient (soul) with his demeritorious deluding (Mohanīya) Karma, subsided (in the 11th) or destroyed (in the 12th stage) or the Conqueror (Jina in the 13th and 14th stages)—such (a soul) is with ideal and passionless (Yathākhyāta) control.

पंचतिहिचहुविहेहिं य अणुगुणसिक्खावयेहिं संजुत्ता ।

उच्चंति देसविरया सम्माइट्ठी झलियकम्मा ॥४७६॥

अर्थ- जो सम्यग्दृष्टी जीव पाँच अणुव्रत तीन गुणव्रत, चार शिक्षाव्रत इस तरह कुल बारह व्रतोंसे युक्त है उनको देशविरत अथवा संयमासंयमी कहते हैं। इस देशसंयमके द्वारा जीवोंके असंख्यातगुणी कर्मोंकी निर्जरा होती है।

Trans. 476. The right believer with 5, 3 and 4 kinds of partial (Aṇu), multiplicative (Guṇa) and disciplinary (Śikṣā) vows (Vrata) (respectively) are called partial-vowers (i.e., with partial control, Deśa Saṁnyama in the 5th stage). (And) they shed the Karmas (to a much greater extent than the right believers in the 4th stage).

दंसणवयसामाइय पोसहसचित्तरायभत्ते य ।

बह्वारंभपरिग्गह अणुमणमुद्धिद्वदेसविरदेदे ॥४७७॥

अर्थ- दार्शनिक, व्रतिक, सामयिकी, प्रोषधोपवासी, सचित्तविरत, रात्रिभुक्तिविरत, ब्रह्मचारी, आरम्भविरत, परिग्रहविरत, अनुमतिविरत, उद्दिष्टविरत ये देशविरत (पाँचवें गुणस्थान) के ग्यारह भेद हैं।

Trans. 477. (1) Right belief (Darśana), (2) vow (Vrata), (3) Equanimity (Sāmāyika), (4) fasting on the 8th and 14th of every lunar fort-night (Proṣadha-Upavāsa), (5) (renouncing) animate food (Sacitta Tyāga), (6) (renouncing) eating at night (Rātribhukti Tyāga), (7) celibacy (Brahma-carya), (8) (renunciation of) wordly occupations (Ārambha-Tyāga), (9) (renunciation of) wordly possessions (Parigraha-Tyāga), (10) (renunciation of) wordly counsel (Anumati Tyāga), (11) (renunciation of) objects specially prepared for one (Uddiṣṭa Tyāga)—these (eleven) (are the stages, Pratimā of) a Partial Vower (Deśa-Virata).

जीवा चोदसभेया इंदियविसया तहट्ठवीसं तु ।

जे तेसु नेव विरया असंजदा ते मुणेदव्वा ॥४७८॥

अर्थ- चौदह प्रकारके जीवसमास और अट्ठाईस प्रकारके इन्द्रियोंके विषय इनसे जो विरक्त नहीं हैं उनको असंयत कहते हैं।

Trans. 478. They who are never vowful (in their dealings with) 14 classes of souls and 28 (kinds) of sense-objects should be known to be without control (Asaṁnyata).

पंचरसपंचवण्णा दो गंधा अट्ठफास सत्तसरा ।

मणसहिदट्ठावीसा इंदियविसया मुणेदव्वा ॥४७९॥

अर्थ- पाँच रस (मीठा, खट्टा, कषायला, कड़वा, चरपरा) पाँच वर्ण (सफेद, पीला, हरा, लाल, काला) दो गन्ध (सुगंध और दुर्गंध) आठ स्पर्श (कोमल, कठोर, हल्का, भारी, शीत, उष्ण, रूखा, चिकना) सात स्वर (षड्ज, ऋषभ, गांधार, मध्यम, पंचम, धैवत, निषाद) और एक मन इस तरहसे ये इन्द्रियोंके अट्टाईस विषय हैं।

Trans. 479. Five tastes, five colours, two smells, eight touches, and 7 sounds, along with mind (enjoyment), should be known to be the 28 sense-objects.

पमदादिचउण्ह जुदी सामायिकदुगं कमेण सेसतियं ।

सत्तसहस्सा णवसय णवलक्खा तीहिं परिहीणा ॥४८०॥

अर्थ- प्रमत्तादि चार गुणस्थानवर्ती जीवोंका जितना प्रमाण है उतने सामयिक संयमी होते हैं और उतने ही छेदोपस्थापनासंयमी होते हैं। परिहारविशुद्धि संयमवाले तीन कम सात हजार (६६६७) सूक्ष्मसांपराय संयमवाले तीन कम नौ सौ (८६७) यथाख्यातसंयमवाले तीनकम नौ लाख (८६६६६७) होते हैं।

Trans. 480. The total of (souls) in the 4 (stages of) imperfect-vow etc., (i.e., imperfect vow, perfect vow, new thought activity, advanced thought activity) is the number of souls with equanimity pair (Sāmāyika, and recovered-equanimity Chedopasthāpanā). (The number) of the other three (i.e., pure-and absolute-non-injury, Parihāra Viśuddhi, all but entire-freedom-from passion, Sūkṣma Sāmparāya and ideal-and-passionless, Yathākhyāta is) 3 less than, 7000, 900, and 9 lacs, respectively.

पल्लासंखेज्जदिमं विरदाविरदाण दव्वपरिमाणं ।

पुव्वुत्तरासिहीणा संसारी अविरदाण पमा ॥४८१॥

अर्थ- पल्यके असंख्यातवें भाग देशसंयमी जीवोंका प्रमाण है। इस प्रकार उक्त संयमियों और देशसंयमियोंको मिलाकर छह राशियोंको संसारी जीवराशिमें से घटानेपर जो शेष रहे उतना असंयमियोंका प्रमाण है।

Trans. 481. The number of souls with partial vows (deśa Saṁyama) is an innumerable part of a Palya, and (all) the mundane souls minus all the above mentioned groups (of souls with control is the number of souls without control (Asaṁyama).

जं सामण्णं गहणं भावाणं णेवकट्टुमायारं ।

अविसेसदूण अट्ठे दंसणमिदि भण्णदे समये ॥४८२॥

अर्थ- सामान्य विशेषात्मक पदार्थके विशेष अंशको ग्रहण न करके केवल सामान्य अंशका जो निर्विकल्परूपसे ग्रहण होता है उसको परमागममें दर्शन कहते हैं।

Trans. 482. The vague and indefinite apprehension of things without grasping anything definite and without knowing the details of a thing is said to be conation (Darśana) in scripture. (See Dravya Saṅgraha G. 43, S. B. J. Vol. I).

भावाणं सामण्णं विसेसयाणं सरूवमेत्तं जं ।

वण्णणं हीणग्गहणं जीवेण य दंसणं होदि ॥४८३॥

अर्थ- सामान्य विशेषात्मक पदार्थोंकी स्वरूपमात्र स्व परसत्ताका निर्विकल्परूपसे जीवके द्वारा जो अवभासन होता है उसको दर्शन कहते हैं।

Trans. 483. The indescribable apprehension by the soul of the mere presence of objects having general and particulars (qualities) is conation (Darśana).

चक्खूणं जं पयासइ दिस्सइ तं चक्खुदंसणं वेति ।

सेसिंदियप्पयासो णायव्वो सो अचक्खू ति ॥४८४॥

अर्थ- चक्षुरिन्द्रिय सम्बन्धी जो सामान्य प्रकाश-आभास अथवा देखना अथवा वह ग्रहण विषयका प्रकाशमात्र जिसके द्वारा हो-जिसके द्वारा वह देखा जाय, यद्वा उसके कर्ता-देखने वालेको चक्षुदर्शन कहते हैं और चक्षुके सिवाय दूसरी चार इन्द्रियोंके द्वारा अथवा मनके द्वारा जो पदार्थका सामान्यरूप ग्रहण होता है उसको अचक्षुदर्शन कहते हैं।

Trans. 484. That by which the (object) of sight is made visible or (that) which sees (such objects)—they call it ocular conation (Cakṣu Darśana). The becoming visible (of their peculiar object) to the other (4) senses (and quasi-sense, the mind)—this should be known to be the non-ocular conation (Acakṣu Darśana).

परमाणु आदियाइ अन्तिमखंडं ति मुक्तिद्वयं ।

तं ओहिदंसणं पुण जं पस्सइ ताइ पच्चक्खं ॥४८५॥

अर्थ- अवधिज्ञान होनेके पूर्व समयमें अवधिके विषयभूत परमाणुसे लेकर महास्कन्धपर्यन्त मूर्तद्रव्यका जो सामान्यरूपसे प्रत्यक्ष देखना-ग्रहण-प्रकाश-अवभासन होता है उसको अवधिदर्शन कहते हैं। इस अवधि दर्शनके अनन्तर प्रत्यक्ष अवधिज्ञान होता है।

Trans. 485. And from an atom, etc., upto the last (maximum) molecule (mahā skandha, are the forms of) material substances—that which sees them directly is the visual conation (Avadhi Darśana).

बहुविह बहुप्पयारा उज्जोवा परिमियम्मि खेत्तम्मि ।

लोगालोगवित्तिमिरो जो केवलदंसणुज्जोओ ॥४८६॥

अर्थ- तीव्र, मंद, मध्यम आदि अनेक अवस्थाओंकी अपेक्षा तथा चन्द्र, सूर्य आदि पदार्थोंकी अपेक्षा अनेक प्रकारके प्रकाश जगत्में पाये जाते हैं परन्तु वे परिमित क्षेत्रमें ही रहते और काम करते हैं किन्तु जो लोक और अलोक दोनों जगह प्रकाश करता है ऐसे आत्माके सामान्य आभास रूप प्रकाशको केवलदर्शन कहते हैं।

Trans. 486. Luminaries of many kinds in many ways, (make visible) limited space. That luminary which removing all darkness makes visible the (whole) universe and the non-universe (is) perfect conation (Kevala Darśana).

जोगे चउरक्खाणं पंचक्खाणं च खीणचरिमाणं ।

चक्खूणमोहिकेवलपरिमाणं ताण णाणं च ॥४८७॥

अर्थ- मिथ्यादृष्टिसे लेकर क्षीणकषाय गुणस्थानपर्यन्त जितने पंचेन्द्रिय है उनका तथा चतुरिन्द्रिय जीवोंकी संख्याका परस्पर जोड़ देनेसे जो राशि उत्पन्न हो उतने ही चक्षुदर्शनी जीव है और अवधिज्ञानी तथा केवलज्ञानी जीवोंका जितना प्रमाण है उतना ही क्रमसे अवधिदर्शनी तथा केवलदर्शनवालोंका प्रमाण है।

Trans. 487. The total of 4-sensed beings, and of 5-sensed beings upto the end of (the 12th stage, where all delusion) has been destroyed (is the number of souls) with ocular (conation). and the number (of souls) with visual and perfect (conation) (is equal to the number of) those (who have visual and perfect) knowledge.

एइंदिय पहुदीणं खीणकसायंतणंत रासीणं ।

जोगो अचक्खु दंसण जीवाणं होदि परिमाणं ॥४८८॥

अर्थ- एकेन्द्रिय जीवोंसे लेकर क्षीणकषायपर्यन्त अनन्तराशिके जोड़को अचक्षुदर्शनवाले जीवोंका प्रमाण समझना चाहिये।

Trans. 488. The total of (souls in) the infinite groups from one-sensed beings up to the end of (the 12th stage, where all) passions have been destroyed is the number of souls with non-ocular conation).

लिंपइ अप्पीकीरइ एदीए णियअपुण्णपुण्णं च ।
जीवो त्ति होदि लेस्सा लेस्सागुणजाणयक्खादा ॥४८६॥

अर्थ- लेश्याके गुणको-स्वरूपको जानने वाले गणधरादि देवोंने लेश्याका स्वरूप ऐसा कहा है कि जिसके द्वारा जीव अपनेको पुण्य और पापसे लिप्त करे पुण्य और पापके अधीन करे उसको लेश्या कहते हैं।

Trans. 489. That by which the soul, stains himself with, or, makes his own the demerit (Pāpa) and merit (Punya) is the (thought) paint (Bhāva Leśyā). So it has been described by the knowers of the attributes of paint (Leśyā).

जोगपउत्ती लेस्सा कसायउदयाणुरंजिया होई ।
तत्तो दोण्णं कज्जं बंधचउक्कं समुद्धिं ॥४८७॥

अर्थ- कषायोदयसे अनुरक्त योगप्रवृत्तिको लेश्या कहते हैं। इसीलिये दोनोंका बन्धचतुष्करूप कार्य परमागममें कहा है।

Trans. 490. The vibratory activity (of the soul) coloured by the operation of the passion (sub-class of deluding karma) is thought-paint (Leśyā). Therefore 4 (kinds of) bondage has been said to be the effect of these two.

णिद्धेसवण्ण परिणामसंकमो कम्मलक्खण गदी य ।
सामी साहणसंखा खेतं फासं तदो कालो ॥४८९॥
अन्तरभावप्पबहु अहियारा सोलसा हवन्ति त्ति ।
लेस्साण साहणट्ठं जहाकमं तेहिं वोच्छामि ॥४९०॥

अर्थ- निर्देश, वर्ण, परिणाम, संक्रम, कर्म, लक्षण, गति, स्वामी, साधन, संख्या, क्षेत्र, स्पर्शन, काल, अन्तर, भाव, अल्पबहुत्व ये लेश्याओंकी सिद्धिके लिये सोलह अधिकार परमागममें कहे गये हैं। इनके ही द्वारा आगे क्रमसे लेश्याओंका निरूपण करेंगे।

Trans. 491-492. (1) Description of kinds (Nirdeśa), (2) colour (Varṇa), (3) modification (Pariṇāma), (4) change (Saṅkrama), (5) action (karma), (6) differentia (Lakṣaṇa), (7) condition of existence (Gati), (8) possessor (Svāmī), (9) cause (Sādhana), (10) number (Saṅkhyā), (11) place (Kṣetra), (12) extent (Sparśana), (13) time (Kāla), (14) interval of time (Antara), (15) quality (Bhāva), (16) quantity (Alpa Bahutva.) These are 16 sub-chapters for the consideration of thought-paints (Leśyā). In these, in their order, I shall speak (of the thought paints).

किण्हा णीला काऊ तेऊ पम्मा य सुक्कलेस्सा य ।
लेस्साणं णिद्धेसा छच्चेव हवन्ति णियमेण ॥४९१॥

अर्थ- लेश्याओंके नियमसे ये छह ही निर्देश-संज्ञाएँ हैं। कृष्णलेश्या, नीललेश्या, कापोतलेश्या, तेजोलेश्या (पीतलेश्या) पद्मलेश्या, शुक्ललेश्या।

Trans. 493. Black (Kṛṣṇa), blue (Nīla), dove-grey (Kāpota), yellow (Teja or Pīta), pink (Padma) and white Śukla,—verily these are the six kinds of Paints (Leśyā).

वण्णोदयेण जणिदो सरीरवण्णो दु दव्वदो लेस्सा ।
सा सोढा किण्हादी अणेयभेयां सभेयेण ॥४९४॥

अर्थ- वर्ण नामकर्मके उदयसे जो शरीरका वर्ण होता है उसको द्रव्यलेश्या कहते हैं। इसके कृष्ण, नील, कापोत, पीत, पद्म, शुक्ल ये छह भेद हैं। तथा प्रत्येकके उत्तर भेद अनेक हैं।

Trans. 494. The colour of the body produced by the operation of colour (sub-class of the body-making Karma—is) matter-paint (Dravya Leśyā). It (is) of 6 kinds black, etc. (as above), (and) of many divisions on account of the sub-divisions of each (kind).

छप्पय णीलकवोद सुहेमंबुज संखसण्णिहा वण्णे ।
संखेज्जासंखेज्जाणंतवियप्पा य पत्तेयं ॥४६५॥

अर्थ- वर्णकी अपेक्षासे भ्रमरके समान कृष्णलेश्या, नीलमणि (नीलम) के समान नील लेश्या, कबूतरके समान कापोतलेश्या, सुवर्णके समान पीतलेश्या, कमलके समान पद्मलेश्या, शंखके समान शुक्ललेश्या होती है। इनमेंसे प्रत्येकके इन्द्रियोंसे प्रकट होनेकी अपेक्षा संख्यात भेद हैं, तथा स्कन्धोंके भेदोंकी अपेक्षा असंख्यात और परमाणुभेदकी अपेक्षा अनन्त तथा अनन्तानन्त भेद होते हैं।

Trans. 495. As to colour (the paints black, etc., are respectively) like bumble-bee, sapphire, dove, gold, lotus, and conch. (And of) each (of these) (there are) numerable, innumerable and infinite distinctions (from the point of view respectively of their being visible to the eye, of the number of their molecules and the number of their atoms).

णिरया किण्हा कप्पा भावाणुगया हु तिसुरणर तिरिये ।
उत्तरदेहे छक्कं भोगे रविचंद हरिदंगा ॥४६६॥

अर्थ- सम्पूर्ण नारकी कृष्णवर्ण ही हैं। कल्पवासी देवोंकी द्रव्यलेश्या (शरीरका वर्ण) भावलेश्याके सदृश होती है। भवनवासी, व्यन्तर, ज्योतिषी, मनुष्य, तिर्यच इनकी द्रव्यलेश्या छहों होती हैं तथा देवोंकी विक्रियाके द्वारा उत्पन्न होनेवाले शरीरका वर्ण भी छह प्रकारमेंसे किसी भी एक प्रकारका होता है। उत्तम भोगभूमिवाले मनुष्य तिर्यचोंका शरीर सूर्यसमान, मध्यम भोगभूमिवाले मनुष्य, तिर्यचोंका शरीर चन्द्रसमान तथा जघन्य भोगभूमिवाले मनुष्य, तिर्यचोंका शरीर हरितवर्ण होता है।

Trans. 496. Hellish beings (are) black. Heavenly beings (have the colour of their bodies) according to their thought-paints. (And) in the remaining three (kinds of) celestials, in humans and sub-humans (and in their) transformed bodies (there are all the) six (colours). In the (supreme, Uttama, middle, Madhyama and lowest, Jaghanya), enjoyment (regions) the bodies are) respectively (in colour like) the sun, (and) the moon, (and are) green.

बादरआऊतेऊ सुक्का तेऊ य वाउकायाणं ।
गोमुत्तमुग्गवण्णा कमसो अब्वत्त वण्णो य ॥४६७॥

अर्थ- क्रमसे बादर जलकायिककी द्रव्यलेश्या शुक्ल और बादर तेजस्कायिककी पीतलेश्या होती है। वायुकायिकके तीन भेद हैं, घनोदधिवात, घनवात, तनुवात। इनमेंसे प्रथमका शरीर गोमूत्रवर्ण, दूसरेका शरीर मूंगसमान और तीसरेके शरीरका वर्ण अव्यक्त है।

Trans. 497. The gross water, (and) fire (bodied souls have) the white and yellow (respectively). And the colour of the air-bodied souls (is like) cow-water, kidney-bean, and of an indescribable colour, respectively, (in the humid, Ghanodadhi, dense, Ghana, and thin, Tanu air-spheres).

सव्वेसिं सुहुमाणं कावोदा सव्वविग्गहे सुक्का ।
सव्वो मिस्सो देहो कवोदवण्णो हवे णियमा ॥४६८॥

अर्थ- सम्पूर्ण सूक्ष्म जीवोंका देह कपोतवर्ण है। विग्रहगतिमें सम्पूर्ण जीवोंका शरीर शुक्ल वर्ण होता है। तथा अपनी अपनी पर्याप्तिके प्रारम्भ समयसे शरीरपर्याप्ति पर्यन्त समस्त जीवोंका मिश्र शरीर नियमसे कपोतवर्ण होता है।

Trans. 498. (The colour of) all fine (sūkṣama, one-sensed beings is) dove-grey. (The colour of) all (beings) in transmigration (Vigrahagati is) white. All (bodies) in mixed (body vibration) necessarily are dove-grey in colour.

लोगाणमसंखेज्जा उदयद्वाणा कसायगा होंति ।
तत्थ किलिद्धा असुहा सुहा विसुद्धा तदालाबा ॥४६६॥

अर्थ- कषायोंके अनुभागरूप उदयस्थान असंख्यात लोकप्रमाण हैं। इनमेंसे अशुभ लेश्याओंके संक्लेशरूप स्थान यद्यपि सामान्यसे असंख्यात लोकप्रमाण ही हैं तथापि विशेषताकी अपेक्षा असंख्यात लोकप्रमाणमें असंख्यात लोकप्रमाण राशिका भाग देनेसे जो लब्ध आवे उसके बहुभाग प्रमाण संक्लेशरूप स्थान है और एक भागप्रमाण शुभलेश्याओंके विशुद्ध स्थान हैं परन्तु सामान्य से ये भी असंख्यात लोकप्रमाण ही हैं जो संक्लेशरूप स्थान हैं वे अशुभलेश्या सम्बन्धी हैं और जो विशुद्ध स्थान हैं वे शुभलेश्यासम्बन्धी हैं।

Trans. 499. The operation-places (Udaya Sthāna) of passions are innumerable universe (i.e., innumerable times the innumerable spatial units of universe). Of these, the painful (and) bad (passion places are by far in excess of the) pleasant, good, by calculation.

तिव्वतमा तिव्वतरा तिव्वा असुहा सुहा तहा मंदा ।
मंदतरा मंदतमा छट्ठाणगया हु पत्तेयं ॥५००॥

अर्थ- अशुभ लेश्यासम्बन्धी तीव्रतम, तीव्रतर, तीव्र ये तीन स्थान और शुभलेश्या सम्बन्धी मन्द, मन्दतर, मन्दतम ये तीन स्थान होते हैं। इन कृष्ण लेश्यादिक छहों लेश्याओं में से जो शुभ स्थान हैं उनमें तो जघन्यसे उत्कृष्टपर्यन्त और जो अशुभ स्थान हैं उनमें उत्कृष्टसे जघन्यपर्यन्त प्रत्येक भेदमें असंख्यात लोकप्रमाण षट्स्थानपतित हानि-वृद्धि होती है।

Trans. 500. The bad (thought-paint-places are) most intense (Tivra-tama), more intense (Tivra-tara), intense (Tivra); and the good (thought-paint places are) mild, (manda) more mild, (manda tara) and most mild, (manda-tama). And in each, (the decrease and increase) is 6-fold (as given in the chapter of knowledge in gāthā 325 and the following).

असुहाणं वरमज्झिम अवंरसे किण्ह नील काउ तिए ।
परिणमदि कमेणप्पा परिहाणीदो किलेसस्स ॥५०१॥

अर्थ- कृष्ण, नील, कापोत इन तीन अशुभ लेश्याओंके उत्कृष्ट, मध्यम, जघन्य अंशरूपमें यह आत्मा क्रमसे संक्लेशकी हानि रूपसे परिणमन करता है।

Trans. 501. By the decrease of pain, soul successively modifies (its condition) of the three bad (thought paints) black, blue and grey in their maximum, medium and minimum parts.

काऊ नीलं किण्हं परिणमदि किलेस वट्ठिदो अप्पा ।
एवं किलेस हाणीवट्ठिदो होदि असुहतियं ॥५०२॥

अर्थ- उत्तरोत्तर संक्लेशपरिणामोंकी वृद्धि होनेसे यह आत्मा कापोतसे नील और नीलसे कृष्णलेश्यारूप परिणमन करता है। इस तरह यह जीव संक्लेशकी हानि और वृद्धिकी अपेक्षासे तीन अशुभलेश्यारूप परिणमन करता है।

Trans. 502. By the increase of pain, the soul modifies (its conditions) though grey, blue, and black (thought paints). Thus by the decrease and increase of pain (there) is (modification) of 3 bad (thought paints).

तेऊ पउमे सुक्के सुहाणमवरादि अंसगे अप्पा ।
सुद्धिस्स य वट्ठिदो हाणीदो अण्णहा होदि ॥५०३॥

अर्थ- उत्तरोत्तर विशुद्धिकी वृद्धि होनेसे यह आत्मा पीत, पद्म, शुक्ल इन तीन शुभलेश्याओंके जघन्य, मध्यम, उत्कृष्ट अंशरूपमें परिणमन करता है तथा विशुद्धिकी हानि होनेसे उत्कृष्टसे जघन्यपर्यन्त शुक्ल, पद्म, पीत लेश्यारूप परिणमन करता है। इस तरह विशुद्धिकी हानि-वृद्धि होनेसे शुभलेश्याओंका परिणमन होता है।

Trans. 503. And by the increase of purity the soul (modifies itself or progresses thought the three) good (i.e), yellow, pink and white (thought paints) in (their) minimum etc. (i.e., medium and maximum) parts, (and) by the decrease, (it) is the reverse.

संकमणं सद्धानं परद्धानं होदि किण्ह सुक्काणं ।

वद्दीसु हि सद्धानं उभयं हाणिम्मि सेस उभये वि ॥५०४॥

अर्थ- परिणामोंके पलटनको संक्रमण कहते हैं। उसके दो भेद है- एक स्वस्थानसंक्रमण, दूसरा परस्थानसंक्रमण। किसी विवक्षित लेश्याका एक परिणाम छूटकर उस ही लेश्यारूप जब दूसरा परिणाम होता है वहाँ स्वस्थान संक्रमण होता है और किसी विवक्षित लेश्याका एक परिणाम छूटकर किसी दूसरी लेश्या (विवक्षित लेश्यासे भिन्न) का जब कोई परिणाम होता है वहाँ परस्थानसंक्रमण होता है।

कृष्ण और शुक्ललेश्यामें वृद्धिकी अपेक्षा स्वस्थान संक्रमण ही होता है और हानिकी अपेक्षा स्वस्थान, परस्थान दोनों ही संक्रमण होते हैं तथा शेष चार लेश्याओंमें हानि तथा वृद्धि दोनों अपेक्षाओंमें स्वस्थान, परस्थान दोनों ही संक्रमणोंके होनेकी सम्भावना है।

Trans. 504. Change (sankramaṇa) is of (two kinds, i.e.), in its own-place (Svasthāna or from its own place to) other place (Parasthāna), i.e., in the same or other thought-paint). In the increases of black and white (thought-paints, the change is only) in its own place (Svasthāna); and in their decreases (it is) of both kinds (i.e., own place Svasthāna) and other place (Parasthāna). (And) of the other (thought paints) also (it is) of both kinds.

लेस्साणुक्कस्सादो वरहाणी अवरागद वरवद्दी ।

सद्धाने अवरादो हाणी णियमा परद्धाने ॥५०५॥

अर्थ- स्वस्थानकी अपेक्षा लेश्याओंके उत्कृष्ट स्थानके समीपवर्ती स्थानका परिणाम उत्कृष्ट स्थानके परिणामसे अनन्त भाग हानिरूप है तथा स्वस्थानकी अपेक्षासे ही जघन्य स्थानके समीपवर्ती स्थानका परिणाम जघन्य स्थानसे अनन्त भागवृद्धिरूप है। सम्पूर्ण लेश्याओंके जघन्य स्थानसे यदि हानि हो तो नियमसे अनन्त गुणहानिरूप परस्थान संक्रमण ही होता है।

Trans. 505. In thought-paints, (the change) in their own place (Svasthāna) from the maximum (is) by minimum decrease (i.e., decrease by infinite part, Ananta Bhāga Hāni) and (the change) from the minimum (is) by minimum increase, (i.e., increase by infinite part, Ananta Bhāga Vṛddhi). (And) necessarily, (the change) from the minimum (of every thought paint) to other place (Parasthāna) is by decrease (infinite fold, Ananta Guṇa Hāni).

संकमणे छद्धाना हाणिसु वद्दीसु होति तण्णामा ।

परिमाणं च य पुवं उत्तकमं होदि सुदण्णामे ॥५०६॥

अर्थ- संक्रमणाधिकारमें हानि और वृद्धि दोनों ही अवस्थाओंमें षट्स्थान होते हैं। इन षट्स्थानोंके नाम तथा परिमाण पहले श्रुतज्ञानमार्गणामें जो कहे हैं वे ही यहाँ पर भी समझना।

Trans. 506. (There are) 6 places (Ṣaṭ-sthāna) of decreases and increases in change (Saṅkramaṇa, in each thought paint). Their names and measures are in the same order as has been described before in (the chapter of) scriptural knowledge.

पहिया जे छप्पुरिसा परिभट्टारण्ण मज्झदेसम्मि ।

फलभरिय रुक्खमेगं पेक्खित्ता ते विचिन्तन्ति ॥५०७॥

णिम्मूलखंधसाहुव साहं छित्तुं चिणुत्तु पडिदाइ ।

खाउं फलाइं इदि जं मणेण वयणं हवे कम्मं ॥५०८॥

अर्थ- कृष्ण आदि छह लेश्यावाले कोई छह पथिक वनके मध्यमें मार्गसे भ्रष्ट होकर फलोंसे पूर्ण किसी वृक्षको देखकर अपने-अपने मनमें इस प्रकार विचार करते हैं और उनके अनुसार वचन कहते हैं। कृष्ण लेश्यावाला विचार करता है और कहता है कि मैं इस वृक्षको मूलसे उखाड़कर इसके फलोंका भक्षण करूँगा। नीललेश्यावाला विचारता है और कहता है कि मैं इस वृक्षको स्कन्धसे काटकर इसके फल खाऊँगा। कापोतलेश्यावाला विचारता है और कहता है कि मैं इस वृक्षकी बड़ी-बड़ी शाखाओंको काटकर इसके फलोंको खाऊँगा। पीतलेश्यावाला विचारता है और कहता है कि मैं इस वृक्षकी छोटी छोटी शाखाओंको काटकर इसके फलोंको खाऊँगा। पद्म लेश्यावाला विचारता है और कहता है कि मैं इस वृक्षके फलोंको तोड़कर खाऊँगा तथा शुक्ललेश्यावाला विचारता है और कहता है कि मैं इस वृक्षसे स्वयं टूट कर पड़े हुए फलोंको खाऊँगा। इस तरह जो मनःपूर्वक वचनादिकी प्रवृत्ति होती है वह लेश्याका कर्म है। यहाँ पर यह एक दृष्टान्तमात्र दिया गया है, इसलिए इसी तरह अन्यत्र भी समझना चाहिए।

Trans. 507-508. Six men, travellers, are lost in the central part of a forest. Seeing a fruit-laden tree they (severally) think of eating the fruits, by uprooting (the tree), by cutting its trunk, by (cutting) the branches, by cutting the minor branches, by plucking (the fruits), by (picking) the fallen (fruits from the ground). Their speech (which represents the six kinds of activity) in the mind is the (result or) action (of the respective thought-paints).

चंडो ण मुचइ वेरं भंडणसीलो य धम्मदय रहिओ ।
 दुट्ठो ण य एदि वसं लक्खणमेयं तु किण्हस्से ॥५०६॥
 मंदो बुद्धिविहीणो णिव्विण्णाणी य विसयलोलो य ।
 माणी मायी य तहा आलस्सो चेव भेज्जो य ॥५१०॥

अर्थ- तीव्र क्रोध करनेवाला हो, वैरको न छोड़े, युद्ध करनेका (लड़नेका) जिसका स्वभाव हो, धर्म और दयासे रहित हो, दुष्ट हो, जो किसीके भी वश न हो ये सब कृष्णलेश्यावालेके चिह्न - लक्षण हैं।

काम करनेमें मन्द हो, अथवा स्वच्छन्द हो, वर्तमान कार्य करनेमें विवेकरहित हो, कला चातुर्यसे रहित हो, स्पर्शनादि पाँच इन्द्रियोंके विषयोंमें लम्पट हो, मानी हो, मायाचारी हो, आलसी हो, दूसरे लोग जिसके अभिप्रायको सहसा न जान सके।

Trans. 509-510. Wrathful, one who does not give up hostility, pugnacious in temperament, devoid of piety and compassion, wicked, not subject to (any) control (or principle), slow, without common sense, without skill, extremely eager for sense-objects, proud, deceitful, lazy, and mysterious— these are the differentia (or signs) of black (thought paint).

णिद्दावंचणबहुलो धणधण्णे होदि तिव्वसण्णा य ।
 लक्खणमेयं भणियं समासदो णीललेस्सस्स ॥५११॥

अर्थ- जो अति निद्रालु और दूसरोंको ठगने अतिदक्ष हो और धन-धान्यके विषयमें जिसकी अतितीव्र लालसा हो ये नीललेश्यावालेके संक्षेपसे चिह्न बताये हैं।

Trans. 511. Extremely sleepy and deceitful, and having an intense desire for cattle and corn, (i.e., worldly riches)— these are briefly said to be the differentia of blue-thought-paint.

रुसइ णिंदइ अण्णे दूसइ बहुसो य सोयभयबहुलो ।
 असुयइ परिभवइ परं पसंसये अप्पायं बहुसो ॥५१२॥
 ण य पत्तियइ परं सो अप्पाणं यिव परं पि मण्णंतो ।
 थूसइ अभित्थुवंतो ण य जाणइ हाणिवहिं वा ॥५१३॥

मरणं पत्येइ रणे देइ सुबहुगं वि थुव्वमाणो दु ।

ण गणइ कज्जाकज्जं लक्खणमेयं तु काउस्स ॥५१४॥

अर्थ- दूसरेके उपर क्रोध करना, दूसरेकी निन्दा करना, अनेक प्रकारसे दूसरोंको दुःख देना अथवा औरोंसे बैर करना, अधिकतर शोकाकुलित रहना तथा भयग्रस्त रहना या हो जाना, दूसरोंके ऐश्वर्यादिको सहन न कर सकना, दूसरेका तिरस्कार करना, अपनी नानाप्रकारसे प्रशंसा करना, दूसरेके ऊपर विश्वास न करना, अपने समान दूसरोंको भी मानना, स्तुति करने वाले पर संतुष्ट हो जाना, अपनी हानि-वृद्धिको कुछ भी न समझना, रणमें मरनेकी प्रार्थना करना, स्तुति करनेवालेको खूब धन दे डालना, अपने कार्य-अकार्यकी कुछ भी गणना न करना ये सब कपोत-लेश्यावालेके चिह्न हैं।

Trans. 512-513-514. (He who) is angry with, and talks ill of others, gives troubles of many kinds, is full of sorrow and fear, envies and disgraces others, praises himself in many ways, does not trust others, thinking (them) also to be like himself, is pleased with his laudation, and does not realise (his own or other's) loss and profit, desires to die in the battle-field, and on being praised gives too much (wealth), and does not take count of whether a thing is fit or unfit to do.—This (is one who has) the differentia of grey (thought-paint).

जाणइ कज्जाकज्जं सेयमसेयं च सव्वसमपासी ।

दयदाणरदो य मिदू लक्खणमेयं तु तेउस्स ॥५१५॥

अर्थ- अपने कार्य-अकार्य, सेव्य-असेव्यको समझनेवाला हो, सबके विषयमें समदर्शी हो, दया और दानमें तत्पर हो, मन, वचन, कायके विषयमें कोमलपरिणामी हो ये पीतलेश्यावालेके चिह्न हैं।

Trans. 515. One who (knows) what is fit or unfit to do, what is fit or unfit to enjoy, looks upon all impartially, is engaged in compassion and charity, and is gentle—(has) these differentia of yellow (thought paint).

चागी भद्दो चोक्खो उज्जवकम्मोय खमदि बहुगं पि ।

साहुगुरुपूजणरदो लक्खणमेयं तु पम्मस्स ॥५१६॥

अर्थ- दान देनेवाला हो, भद्रपरिणामी हो; जिसका उत्तम कार्य करनेका स्वभाव हो, कष्टरूप तथा अनिष्टरूप उपद्रवोंको सहन करनेवाला हो, मुनिजन, गुरुजन आदिकी पूजामें प्रीतियुक्त हो ये सब पद्मलेश्यावाले लक्षण हैं।

Trans. 516. Charitable (Tyāgi), kind, beneficent, ready to do (good) actions, having great forbearance, and devoted to the worship of saints (and) teachers—these (are) the differentia of pink (thought-paint).

ण य कुणइ पक्खवायं ण वि य णिदाणं समो य सव्वेसिं ।

णत्थि य रायद्दोसा णेहो वि य सुक्कलेस्सस्स ॥५१७॥

अर्थ- पक्षपात न करना, निदानको न बाँधना, सब जीवोंमें समदर्शी होना, इष्टसे राग और अनिष्टसे द्वेष न करना, स्त्री, पुत्र, मित्र आदिमें स्नेहरहित होना, ये सब शुक्ललेश्यावालेके लक्षण हैं।

इस प्रकार पाँचवें लक्षण अधिकारका वर्णन पूर्ण हुआ। अब क्रमप्राप्त छट्टे गति अधिकारका ग्यारह गाथाओंके द्वारा वर्णन करते हैं।

Trans. 517. He who does not (show) partiality nor (has any) desire of future enjoyments, (is) equanimous to all (living beings), and has no love and hatred, nor attachment, (is one) with (the differentia) of white paint.

लेस्साणं खलु अंसा छव्वीसा होंति तत्थ मज्झिमया ।

आउगबंधणजोग्गा अट्ठट्ठवगरिसकालभवा ॥५१८॥

अर्थ- लेश्याओंके कुल छब्बीस अंश हैं, इनमेंसे मध्यके आठ अंश जो कि आठ अपकर्ष कालमें होते हैं वे ही आयुर्कर्मके बन्धके योग्य होते हैं।

Trans. 518. There are 26 parts of thought-paints. Of these the eight middle ones (only are) fit for bondage of age (Karma), (and) these occur at the eight declining-times (Apakarṣa Kāla).

सेसद्वारस अंसा चउगइ गमणस्स कारणा होंति ।

सुककुक्कस्सं समुदा सब्बदं जांति खलु जीवा ॥५१६॥

अर्थ -अपकर्षकालमें होनेवाले लेश्याओंके आठ मध्यमांशोंको छोड़कर बाकीके अठारह अंश चारों गतियोंके गमनके कारण होते हैं यह सामान्य नियम है परन्तु विशेष यह है, शुक्ललेश्याके उत्कृष्ट अंशसे संयुक्त जीव मरकर नियमसे सर्वार्थसिद्धि को जाते हैं।

Trans. 519. The remaining 18 parts are the causes of going in the 4 conditions of existence, And certainly the souls dying with the maximum part of white thought-paint go to Sarvārtha-siddhi, (the heaven just below the abode of the liberated).

अवरंसमुदा होंति सदारदुगे मज्झिमंसणेण मुदा ।

आणदकप्पादुवरिं सवट्ठाइल्लगे होंति ॥५२०॥

अर्थ- शुक्ललेश्याके जघन्य अंशसे संयुक्त जीव मरकर शतार, सहस्रार स्वर्गपर्यंत जाते हैं और मध्यमांशों करके सहित मरा हुआ जीव सर्वार्थसिद्धिसे पूर्वके तथा आनत स्वर्गसे लेकर ऊपरके समस्त विमानोंमें से यथासम्भव किसी भी विमानमें उत्पन्न होता है और आनत स्वर्गमें भी उत्पन्न होता है।

Trans. 520. (Souls dying with minimum parts (of white) thought-paint are born in the two, Satāra (and Sahasrāra, the 11th and 12th heavens) (and those) dying with the middle parts of (white paint) are born in heavens (situated) above the Ānata, (the 13th) and below the Sarvārtha-siddhi.

पम्मुक्कस्संसमुदा जीव उवजांति खलु सहस्सारं ।

अवरंसमुदा जीवा सणक्कुमारं च माहिंदं ॥५२१॥

अर्थ- पद्मलेश्याके उत्कृष्ट अंशोंके साथ मरे हुए जीव नियमसे सहस्रार स्वर्गको प्राप्त होते हैं और पद्म लेश्याके जघन्य अंशोंके साथ मरे हुए जीव सानत्कुमार और माहेन्द्र स्वर्गको प्राप्त होते हैं।

Trans. 521. Souls dying with the maximum part of pink (thought-paint) go to Sahasrāra, (the 12th heaven); and souls dying with its minimum parts (go) to Sanat-kumāra and Māhendra, (3rd and 4th heavens).

मज्झिम अंसेण मुदा तम्मज्झं जांति तेउजेट्ठमुदा ।

साणक्कुमार माहिंदंतिम चक्किंद सेट्ठिम्मि ॥५२२॥

अर्थ- पद्मलेश्याके मध्यमअंशोंके साथ मरे हुए जीव सानत्कुमार, माहेन्द्र स्वर्गके ऊपर और सहस्रार स्वर्गके नीचे नीचे तक विमानोंमें उत्पन्न होते हैं पीतलेश्याके उत्कृष्ट अंशोंके साथ मरे हुए जीव सानत्कुमार, माहेन्द्र स्वर्गके अन्तिम पटलमें जो चक्रनामका इन्द्रकसम्बन्धी श्रेणीबद्ध विमान है उसमें उत्पन्न होते हैं।

Trans. 522. And (those) dying with its middle parts go to the intervening heavens between them (i. e., between Sahasrāra above and Sānat-kumāra and Māhendra below); and (those) dying with the maximum parts of yellow (are born in the heavens) lined alongside the Cakra, (heaven) which is the Indraka (or centre heaven) in the last layer of Sānat-kumāra and Māhendra.

अवरंसमुदा सोहम्मीसाणादिमउडम्मि सेट्ठिम्मि ।

मज्झिम अंसेण मुदा विमलविमाणादि बलभदे ॥५२३॥

अर्थ- पीतलेश्याके जघन्य अंशोंके साथ मरा हुआ जीव सौधर्म, ईशान स्वर्गके ऋजु नामक इन्द्रक विमानमें अथवा श्रेणीबद्ध विमानमें उत्पन्न होता है। पीत लेश्याके मध्यम अंशोंके साथ मरा हुआ जीव सौधर्म ईशान स्वर्गके दूसरे पटलके विमल नामक इन्द्रक विमानसे लेकर सानत्कुमार, माहेन्द्र स्वर्गके द्विचरम पटलके (अन्तिम पटलके पूर्व पटलके) बलभद्रनामक इन्द्रक विमानपर्यन्त उत्पन्न होता है।

Trans. 523. And (those) dying with its minimum parts (go) to the first (Indraka or central Vimāna called) Ritu or in (the others in the same) line (with it) in Saudharma and Īśāna (heavens), (those) dying with the middle parts (of yellow thought-paints, are born in Vimānas) from the Vimala Vimāna, (i. e., the central Vimāna of the second layer of Saudharma and Īśāna) upto Balbhadrā (the central Vimāna of the last but one layer of Sānatkumāra and Māhendra).

किण्हरंसेण मुदा अवधिद्वाणम्मि अवरअंसमुदा ।

पंचम चरिम तिमिस्से मज्झे मज्जेण जायंते ॥५२४॥

अर्थ- कृष्णलेश्याके उत्कृष्ट अंशोंके साथ मरे हुए जीव सातवीं पृथ्वीके अवधिस्थान नामक इन्द्रक बिलमें उत्पन्न होते हैं। जघन्य अंशोंके साथ मरे हुए जीव पाँचवीं पृथ्वीके अन्तिम पटलके तिमिश्रनामक इन्द्रक बिलमें उत्पन्न होते हैं। कृष्णलेश्याके मध्यम अंशोंके साथ मरे हुए जीव दोनोंके (सातवीं पृथ्वीके अवधि स्थान या अप्रतिष्ठान नामक इन्द्रकबिल और पाँचवीं पृथ्वीके अन्तिम पटलसम्बन्धी तिमिश्र नामक बिलके) मध्यस्थानोंमें यथासम्भव योग्यतानुसार उत्पन्न होते हैं।

Trans. 524. (The souls) dying with the maximum parts of black (thought-paint) are born in Avadhi, (the central) place (or Indraka in the 7th hell). (And those) dying with its minimum, in Timisra, (the central portion or Indraka) of the last (layer) of the 5th (hell). And (those) dying with its maximum, in (the hells) between (these two).

नीलुक्कस्संसमुदा पंचम अंधिंदयम्मि अवरमुदा ।

बालुकसंपज्जलिदे मज्झे मज्जेण जायंते ॥५२५॥

अर्थ- नीललेश्याके उत्कृष्ट अंशोंके साथ मरे हुए जीव पाँचवीं पृथ्वीके द्विचरम पटलसम्बन्धी अन्ध्रनामक इन्द्रकबिलमें उत्पन्न होते हैं। कोई-कोई पाँचवें पटलमें भी उत्पन्न होते हैं। इतना विशेष और भी है कि कृष्णलेश्याके जघन्य अंशवाले भी जीव मरकर पाँचवीं पृथ्वीके अन्तिम पटलमें उत्पन्न होते हैं। नीललेश्याके जघन्य अंशवाले जीव मरकर तीसरी पृथ्वीके अन्तिम पटल सम्बन्धी संप्रज्वलित नामक इन्द्रकबिलमें उत्पन्न होते हैं। नीललेश्याके मध्यम अंशवाले जीव मरकर तीसरी पृथ्वीके संप्रज्वलित नामक इन्द्रकबिलके आगे और पाँचवीं पृथ्वीके अन्ध्रनामक इन्द्रक बिलके पहले जितने पटल और इन्द्रक हैं उनमें यथायोग्य उत्पन्न होते हैं।

Trans. 525. (Those) dying with the maximum parts of blue are born in the Andhra-Indraka (or central part of the pen-ultimate layer of the) fifth hell. And (those) dying with the minimum, in the Samprajvalita, (the central part or Indraka of last layer of, Bālukā, (the third hell), And (those) dying with the middle parts, in (the hells) between (these two).

वरकाओदंसमुदा संजलिदं जाति तदियणिरयस्स ।

सीमंतं अवरमुदा मज्झे मज्जेण जायंते ॥५२६॥

अर्थ- कापोतलेश्याके उत्कृष्ट अंशोंके साथ मरे हुए जीव तीसरी पृथ्वीके नौ पटलोंमेंसे द्विचरम-आठवें पटलसम्बन्धी संज्वलित नामक इन्द्रकबिलमें उत्पन्न होते हैं। कोई-कोई अन्तिम पटलसम्बन्धी संज्वलित नामक इन्द्रकबिलमें भी उत्पन्न होते हैं। कापोतलेश्याके जघन्य अंशोंके साथ मरे हुए जीव प्रथम पृथ्वीके सीमान्त नामक प्रथम इन्द्रकबिलमें उत्पन्न होते हैं और मध्यम अंशोंके साथ मरे हुए जीव प्रथम पृथ्वीके

सीमान्त नामक प्रथम इन्द्रकबिलसे आगे और तीसरी पृथ्वीके द्विचरम पटलसम्बन्धी संज्वलित नामक इन्द्रकबिलके पहले तीसरी पृथ्वीके सात पटल, दूसरी पृथ्वीके ग्यारह पटल और प्रथम पृथ्वीके बारह पटलोंमें या धम्मा भूमिके तेरह पटलोंमेंसे पहले सीमान्तक बिलके आगे सभी बिलोंमें यथायोग्य उत्पन्न होते हैं।

Trans. 526. (Those) dying with the maximum part of grey (paint) are born in (Samjvalita) (the central portion or (Indraka) of the pen-ultimate layer) of the third hell, (but some in the central portion of the last layer of it, i.e., in Samprajvalita). And (those) dying with its minimum, in Sīmanta (the Indraka or central portion of the first hell). (And dying with the middle parts), In (the hells) between (these two).

किण्हचउक्काणं पुण मज्झंसमुदा हु भवणगादितिये ।

पुढवी आउवणप्फदि जीवेसु हवन्ति खलु जीवा ॥५२७॥

अर्थ- कृष्णादिक चार लेश्याओंके सम्बन्धमें कुछ विशेष भी वर्णनीय तथा ज्ञातव्य है। वह यह कि कृष्ण, नील, कपोत इन तीन लेश्याओंके मध्यम अंशोंके साथ मरे हुए कर्मभूमियाँ मिथ्यादृष्टि तिर्यच वा मनुष्य और पीत लेश्याके मध्यम अंशोंके साथ मरे हुए भोगभूमियाँ मिथ्यादृष्टि तिर्यच वा मनुष्य भवनवासी, व्यन्तर, ज्योतिषी देवोंमें उत्पन्न होते हैं तथा कृष्ण, नील, कापोत और पीतलेश्याके मध्यम अंशोंके साथ मरे हुए तिर्यच और मनुष्य अथवा भवनवासी, व्यन्तर, ज्योतिषी वा सौधर्म, ईशान, स्वर्गके मिथ्यादृष्टि देव, बादर पर्याप्त पृथिवीकायिक, जलकायिक तथा पर्याप्त वनस्पतिकायिक जीवोंमें उत्पन्न होते हैं।

Trans. 527. (Wrong-believing human and sub-human) souls (of the work-region, Karma-bhūmi, and of the enjoyment-region, Bhoga-bhūmi) dying with the middle parts of the four, black, (blue, grey, and yellow are born) as the three, residential, (peripatetic and stellar order of celestial beings). (And the wrong-believing humans and sub-humans of the work-region, residential, peripatetic, and stellars, and the heavenly beings of Saudharma and Isāna, dying with the middle parts of these four paints) are born as (developable gross) earth, water, and vegetable-bodied souls.

किण्हतियाणं मज्झिमअंसमुदा तेउआउ वियलेसु ।

सुरणिरया सगलेस्सहिं णरतिरियं जांति सगजोग्गं ॥५२८॥

अर्थ- कृष्ण, नील, कापोत इन तीन लेश्याओंके मध्यम अंशोंके साथ मरे हुए तिर्यच वा मनुष्य, तेजस्कायिक, वातकायिक, विकलत्रय, असंज्ञी पंचेन्द्रिय, साधारण वनस्पति इनमें यथायोग्य उत्पन्न होते हैं और भवनत्रय आदि सर्वार्थसिद्धिपर्यंतके देव तथा सातों पृथ्वीसम्बन्धी नारकी अपनी-अपनी लेश्याके अनुसार मनुष्यगति या तिर्यचगतिको प्राप्त होते हैं।

Trans. 528. (The wrong-believing humans and sub-humans of the work-region), dying with the middle parts of the three black, (blue and grey are born) as fire, air, and incomplete sensed (i.e. 2, 3, and 4-sensed Vikalatraya, beings (or as irrational 5-sensed and the common (Sādhāraṇa) vegetables). (And) the hellish and the (remaining) celestial beings go to the human and sub-human (conditions of existence) corresponding to the particular thought-paints' (with which they die).

काऊ काऊ काऊ णीला णीला य णील किण्हा य ।

किण्हा य परमकिण्हा लेस्सा पढमादिपुढवीणं ॥५२९॥

अर्थ- पहली धम्मा या रत्नप्रभा पृथ्वीमें कापोतलेश्याका जघन्य अंश है। दूसरी वंशा या शर्कराप्रभा पृथ्वीमें कापोतलेश्याका मध्यम अंश है। तीसरी मेघा या वालुकाप्रभा पृथ्वीमें कापोत लेश्याका उत्कृष्टअंश और नील लेश्याका जघन्य अंश है। चौथी अंजना या पंकप्रभा पृथ्वीमें नीललेश्याका मध्यम अंश है। पाँचवीं अरिष्टा या धूमप्रभापृथ्वीमें नील लेश्याका उत्कृष्ट अंश और कृष्ण लेश्याका जघन्य अंश है। छठवीं मघवी या तमःप्रभा पृथ्वीमें कृष्ण लेश्याका मध्यम अंश है। सातवीं माघवी या महातमःप्रभा पृथ्वीमें कृष्ण लेश्याका उत्कृष्ट अंश है।

Trans. 529. The thought-paints of hells beginning from the first (upto seven, the lowest are respectively), (1) the (minimum) grey; (2) (medium) grey; (3) (maximum) grey and (minimum) blue; (4) (medium) blue; (5) (maximum) blue and (minimum) black; (6) medium black; and (7) maximum black.

णरतिरियाणं ओघो इगिविगले तिण्णि चउ ओसण्णिस्स ।

सण्णि अपुण्णगमिच्छे सासणसम्मे वि असुहतियं ॥५३०॥

अर्थ- मनुष्य और तिर्यचोंके सामान्यसे छहों लेश्याएँ होती हैं परन्तु विशेष रूपसे एकेन्द्रिय और विकलत्रय (द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय) जीवोंके कृष्ण आदि तीन अशुभ लेश्याएँ ही होती हैं। असंज्ञी पंचेन्द्रिय पर्याप्त जीवोंके कृष्ण आदि चार लेश्याएँ होती हैं क्योंकि असंज्ञी पंचेन्द्रिय कपोतलेश्यावाला जीव मरणकर पहले नरकको जाता है तथा तेजोलेश्यासहित मरनेसे भवनवासी और व्यन्तर देवोंमें उत्पन्न होता है। कृष्ण आदि तीन अशुभ लेश्यासहित मरनेसे यथायोग्य मनुष्य या तिर्यचोंमें उत्पन्न होता है। संज्ञी लब्ध्यपर्याप्तक मिथ्यादृष्टि मनुष्य और तिर्यच तथा अपि शब्दसे असंज्ञी लब्ध्यपर्याप्त और सासादान गुणस्थानवर्ती निर्वृत्यपर्याप्त, तिर्यच, मनुष्य तथा भवनत्रिक इतने जीवोंमें कृष्ण आदि तीन अशुभ लेश्याएँ ही होती हैं। तिर्यच और मनुष्य उपशम सम्यग्दृष्टि जीवोंके सम्यक्त्व कालके भीतर विशिष्ट संक्लेशके हो जानेपर भी ये तीन अशुभ लेश्याएँ नहीं हुआ करती किन्तु उसकी विराधना करके सासादान बननेवालोंके अपर्याप्त अवस्थामें तीन अशुभ लेश्याएँ ही हुआ करती हैं।

Trans. 530. In human and sub-human (beings there are) all (the 6 thought-paints); in one, and 2 to 4-sensed beings, the three (black, blue and grey). In the irrational (5-sensed developable sub-humans), four (black, blue, grey and yellow). In the (irrational) and rational (five-sensed) completely undevelopable wrong believing (sub-human and human beings); in (the potentially developable human, sub-human, residential, peripatetic and stellar beings), in down fall from right (to wrong belief), there are three bad (thought-paints, black, blue, and grey).

भोगा पुण्णगसम्मे काउस्स जहण्णियं हवे णियमा ।

सम्मे वा मिच्छे वा पज्जते तिण्णि सुहलेस्सा ॥५३१॥

अर्थ- भोगभूमियाँ निर्वृत्यपर्याप्तक सम्यग्दृष्टि जीवोंमें कपोतलेश्याका जघन्य अंश होता है तथा भोगभूमियाँ सम्यग्दृष्टि या मिथ्यादृष्टि जीवोंके पर्याप्त अवस्थामें पीत आदि तीन शुभ लेश्याएँ ही होती हैं।

Trans. 531. In the right-believing, potentially developable (human and sub-human beings) of enjoyment (regions), necessarily there is the minimum part of grey. In the developable (humans and sub-humans in the enjoyment regions) in their (condition of) right or wrong belief (there are) three good-thought-paints (yellow, pink and white).

अयदो त्ति छ लेस्साओ सुहतियलेस्सा हु देसविरदतिये ।

तत्ते सुक्का लेस्सा अजोगिठाणं अलेस्सं तु ॥५३२॥

अर्थ- चतुर्थ गुणस्थानपर्यन्त छहों लेश्याएँ होती हैं तथा देशविरत, प्रमत्तविरत और अप्रमत्तविरत इन तीन गुणस्थानोंमें तीन शुभलेश्याएँ ही होती हैं किन्तु इसके आगे अपूर्वकरणसे लेकर सयोगकेवलीपर्यन्त एक शुक्ललेश्या ही होती है और अयोगकेवली गुणस्थान लेश्यारहित है।

Trans. 532. In the non-control (condition of the soul, i.e., upto the 4th stage of vowless-right-belief, Avirata Samyaktva there are) six thought-paints. In the three, (i.e., 5th, 6th and 7th, stages of) partial vow, (imperfect vow and perfect vow) there are three good thought-paints. From that (the 8th to the 13th stages there is), white thought paint (only). And (there is) no thought-paint in the (14th) stage of non-vibration.

गण्डकसाये लेस्सा उच्चदि सा भूदपुव्व गदिण्या ।

अहवा जोगपउत्ती मुक्खो त्ति तहिं हवे लेस्सा ॥५३३॥

अर्थ- अकषाय जीवोंके जो लेश्या बताई है वह भूतपूर्वप्रज्ञापन नयकी अपेक्षासे बताई है अथवा योगकी प्रवृत्तिको लेश्या कहते हैं, इस अपेक्षासे वहाँ पर मुख्यरूपसे भी लेश्या है क्योंकि वहाँपर योगका सद्भाव है।

Trans. 533. (In the 11th stage, in which passion has subsided, and in the 12th and 13th stages) in which it has been destroyed, the (white) thought-paint is spoken of from the view point of (figurative) speech, in which we speak of the past as happening in the present, (e.g. to say on the anniversary of Waterloo; "Waterloo was fought to-day"); or vibratory activity being prominent, thought-paint (is said) to be there.

तिण्हं दोण्हं दोण्हं छण्हं दोण्हं च तेरसण्हं च ।

एत्तो य चोददसण्हं लेस्सा भवणादि देवाणं ॥५३४॥

तेऊ तेऊ तेऊ पम्मा पम्मा य पम्मसुक्का य ।

सुक्का य परमसुक्का भवणतियापुण्णगे असुहा ॥५३५॥

अर्थ- भवनवासी, व्यन्तर, ज्योतिषी इन तीन देवोंके पीतलेश्याका जघन्य अंश है। सौधर्म, ईशान, स्वर्गवाले देवोंके पीतलेश्याका मध्यम अंश है। सनत्कुमार, माहेन्द्र स्वर्गवालोंका पीतलेश्याका उत्कृष्ट अंश और पद्मलेश्याका जघन्य अंश है। ब्रह्म, ब्रह्मोत्तर, लांतव, कापिष्ठ, शुक्र, महाशुक्र इन छह स्वर्गवालोंके पद्मलेश्याका मध्यम अंश है। शतार, सहस्रार स्वर्गवालोंके पद्मलेश्याका उत्कृष्ट अंश और शुक्ललेश्याका जघन्य अंश है। आनत, प्राणत, आरण, अच्युत तथा नव ग्रैवेयक इन तेरह वैमानिक देवोंके शुक्ललेश्याका मध्यम अंश है। इसके ऊपर नव अनुदिश तथा पाँच अनुत्तर इन चौदह विमानवाले देवोंके शुक्ललेश्याका उत्कृष्ट अंश होता है। भवनवासी आदि तीन देवोंके अपर्याप्त अवस्थामें कृष्ण आदि तीन अशुभ लेश्याएँ ही होती हैं।

Trans. 534-535. The thought-paint of the residential etc. celestial beings i.e. of the three (Residential, peripatetic and stellar); of two (Saudharma and Īśāna; of two (Sānatkumāra and Māhendra); of six (Brahma, Brahmottara, Lāntava, Kāpiṣṭha, Śukra and Mahā-śukra); of two (Śātāra and Sahasrāra); of thirteen (Ānata, Prāṇat, Āraṇa, Acyuta and the nine Graiveyakas); and beyond this of the (nine Anudīśas and five Anuttaras are respectively), (the minimum) yellow, medium yellow, (maximum) yellow and (minimum) pink; (medium) pink; (maximum) pink and (minimum) white; (medium) white; and maximum white. And the non-developable three residentail (peripatetic and stellar have only) the bad-thought-paints (black, blue and grey).

वण्णोदयसंपादित सरीरवण्णो दु दव्वदो लेस्सा ।

मोहुदय खओवसमोवसमखयज जीव फंदणंभावो ॥५३६॥

अर्थ- वर्णनामकर्मके उदयसे जो शरीरका वर्ण (रंग) होता है उसको द्रव्यलेश्या कहते हैं। मोहनीय कर्मके उदय या क्षयोपशम या क्षयसे जो जीवके प्रदेशोंकी चंचलता होती है उसको भाव-लेश्या कहते हैं।

Trans. 536. The colour of the body produced by the operation of the colour (sub-class of the body-making Karma) is matter-paint (Dravya Leśyā). The vibration of the soul produced by the operation (in the first four stages), by destructive-subsidence (in the 5th, 6th and 7th stages), by subsidence (in the 8th, 9th, 10th and 11th, stages of subsidential ladder (Upāsama Śreṇī), and by destruction (in 8th, 9th, 10th, 12th, and 13th) of deluding-Karma (Moha) is thought (paint) (Bhāva Leśyā).

किण्हादि रासिमावलि अंसखभागेण भजिय पविभत्ते ।

हीणकमा कालं वा अस्सिय दव्वा दु भजिदव्वा ॥५३७॥

अर्थ- संसारी जीव राशिमें से तीन शुभ लेश्यावाले जीवोंका प्रमाण घटानेसे जो शेष रहे उतना कृष्ण आदि तीन अशुभ लेश्यावाले जीवोंका प्रमाण है। यह प्रमाण संसारी जीवराशिसे कुछ कम होता है। इस राशिमें आवलीके असंख्यातवें भागका भाग देकर एक भागको अलग रखकर शेष बहुभागके तीन समान भाग करना। तथा शेष अलग रखे हुए एक भागमें आवलीके असंख्यातवें भागका भाग देकर बहुभागको तीन समान भागोंमें से एक भागमें मिलानेसे कृष्ण लेश्यावाले जीवोंका प्रमाण होता है। शेष एक भागमें फिर आवलीके असंख्यातवें भागका भाग देनेसे लब्ध बहुभागको तीन समान भागोंमेंसे दूसरे भागमें मिलानेसे नील लेश्या वाले जीवोंका प्रमाण होता है और अवशिष्ट एक भागको तीसरे भागमें मिलानेसे कापोत लेश्या वाले जीवोंका प्रमाण होता है। इस प्रकार अशुभ लेश्या वालोंका द्रव्यकी अपेक्षा प्रमाण कहा। यह प्रमाण उत्तरोत्तर कुछ-कुछ घटता-घटता है। अब कालकी अपेक्षासे प्रमाण बताते हैं। कृष्ण, नील, कापोत तीन लेश्याओंका काल मिलानेसे जो अन्तर्मुहूर्त काल होता है उसमें आवलीके असंख्यातवें भागका भाग देना। इसमें एक भागको जुदा रखना और बहुभागके तीन समान भाग करना तथा अवशिष्ट एक भागमें आवलीके असंख्यातवें भागका भाग देना। लब्ध एक भागको अलग रखकर बहुभागको तीन समान भागोंमेंसे एक भागमें मिलानेसे जो प्रमाण हो वह कृष्ण लेश्याका काल है। अलग रखे हुए लब्ध एक भागमें फिर आवलीके असंख्यातवें भागका भाग देनेसे लब्ध बहुभागको तीन समान भागोंमेंसे दूसरे भागमें मिलानेसे जो प्रमाण हो वह नील लेश्याका काल है। अवशिष्ट एक भागको अवशिष्ट तीसरे भागमें मिलानेसे जो प्रमाण हो वह कापोत लेश्याका काल है। इस प्रकार तीन अशुभ लेश्याओंके कालका प्रमाणभी उत्तरोत्तर अल्प-अल्प समझना चाहिए।

Trans. 537. The total of (souls) with black, etc., (i.e. black, blue, and grey thought-paints), (should be) divided by an innumerable part of an Āvalī; (the quotient) subtracted from the total and the balance equally divided among the three (thought-paints). (The quotient should) again be divided (by an innumerable part of an Āvalī). (and the resulting quotient subtracted from the first quotient and added to one of the three equal parts, to get the number of souls in black thought-paint). (The process indicated in Gāthā 179 should be adopted to find out the number of souls with other thought-paints). (Soul) substances (may be) described on the basis of time, also, by division, etc. in order, (according to the above process).

खेत्तादो असुहतिया अणंतलोगा कमेण परिहीणा ।

कालादोतीदादो अणंतगुणिदा कमा हीणा ॥५३८॥

अर्थ- क्षेत्रप्रमाणकी अपेक्षा तीन अशुभ लेश्यावाले जीव लोकाकाशके प्रदेशोंसे अनन्तगुणे हैं परन्तु उत्तरोत्तर क्रमसे हीन-हीन है। कृष्णलेश्यावालोंसे कुछ कम नीललेश्यावाले जीव हैं और नीललेश्यावालोंसे कुछ कम कापोतलेश्यावाले जीव हैं तथा कालकी अपेक्षा अशुभ लेश्यावालोंका प्रमाण, भूत-कालके जितने समय हैं उससे अनन्तगुणा है। यह प्रमाण भी उत्तरोत्तर हीनक्रम समझना चाहिये।

Trans. 538. As to space (or spatial units, the souls) with the three bad (black, blue and grey thought-paints) are infinite times the innumerable spatial units of universe, successively less and less. As to time (they are) infinite times (the instants) in the past time, successively less and less.

केवलणाणाणंतिम भागा भावादु किण्हतियजीवा ।

तेउतियासंखेज्जा संखासंखेज्ज भागकमा ॥५३९॥

अर्थ- भावकी अपेक्षा तीन अशुभ लेश्यावाले जीव, केवलज्ञानके जितने अविभागप्रतिच्छेद हैं उसके अनन्तवें भागप्रमाण हैं। यहाँ पर भी पूर्ववत् उत्तरोत्तर हीनक्रम समझना चाहिये। पीत आदि तीन शुभ लेश्यावालोंका द्रव्यकी अपेक्षा प्रमाण सामान्यसे असंख्यात है। तथापि पीतलेश्यावालोंसे संख्यातवें भाग पद्मलेश्यावाले हैं और पद्मलेश्यावालोंसे असंख्यातवें भाग शुक्ललेश्यावाले जीव हैं।

Trans. 539. As to modifications (bhāva) souls with the three black, (blud and grey paints are) an infinite part of the units (Avibhāga Praticcheda) of perfect knowledge. Souls with the three yellow (pink and white are) innumerable, and, successively numerable, and innumerable, part of the immediately (preceding one).

जोइसियादो अहिया तिरिक्खसण्णिस्स संखभागो दु ।

सूइस्स अंगुलस्स य असंखभागं तु तेउतियं ॥५४०॥

अर्थ- ज्योतिषी देवोंके प्रमाणसे कुछ अधिक तेजोलेश्यावाले जीव हैं और समस्त तेजोलेश्यावाले जीवोंसे ही संख्यातगुणे कम नहीं अपितु तेजोलेश्यावाले संज्ञी तिर्यच जीवोंके प्रमाणसे भी संख्यातगुणे कम पद्मलेश्यावाले जीव हैं और सूच्यंगुलके असंख्यातवें भागप्रमाण मात्र शुक्ललेश्यावाले जीव हैं ।

Trans. 540. (As to space, the number of souls) with the three yellow, (pink and white thought-paints is respectively), (the number of the) stellars, and more; the numerable part of (the total of) the rational sub-humans (with yellow thought-paints); an innumerable part of a linear finger (Sūcyāṅgula).

वेसदछप्पणंगुल कदिहदपदरं तु जोइसियमाणं ।

तस्स या संखेज्जदिमा तिरिक्ख सण्णीण परिमाणं ॥५४१॥

अर्थ- दोसौ छप्पन अंगुलके वर्ग प्रमाण (पण्ण्डी प्रमाण = ६५५३६) प्रतरांगुलका भाग जगत्प्रतरमें देनेसे जो प्रमाण हो उतने ज्योतिषी देव हैं और इसके संख्यातवें भाग प्रमाण संज्ञी तिर्यच जीव हैं ।

Trans. 541. Basic area (of universe) divided by two hundred and fifty-six finger squared, (i.e., 65536 square āṅgula, is number of) stellars (with yellow thought-paint). And a numerable part of it (is the number of) rational sub-humans (with yellow thought-paint).

तेजदु असंखकप्पा पल्ला संखेज्जभागया सुक्का ।

ओहि असंखेज्जदिमा तेउ तिया भावदो होंति ॥५४२॥

अर्थ- असंख्यात कल्पकालके जितने समय हैं उतने ही सामान्यसे तेजोलेश्यावाले और उतने ही पद्मलेश्यावाले जीव हैं तथापि तेजोलेश्यावालोंसे पद्मलेश्यावाले संख्यातवें भाग हैं और पल्यके असंख्यातवें भागप्रमाण शुक्ललेश्यावाले जीव हैं । इस प्रकार कालकी अपेक्षासे तीन शुभ लेश्याओंका प्रमाण समझना चाहिए तथा अवधिज्ञानके जितने विकल्प हैं उसके असंख्यातवें भाग सामान्यसे प्रत्येक शुभ लेश्यावाले जीव हैं तथापि तेजोलेश्यावालोंसे संख्यातवें भाग पद्मलेश्यावाले और पद्मलेश्यावालोंसे शुक्ललेश्यावाले असंख्यातवें भाग मात्र हैं । यहाँ यह लेश्याओंका प्रमाण भावकी अपेक्षासे है । इस प्रकार संख्याके द्वारा लेश्याओंका वर्णन करनेवाला दसवाँ अधिकार समाप्त हुआ ।

Trans. 542. (As to time the souls) with two (paints), yellow (and pink amount in number to the number of instants) in innumerable Kalpas (one Kalpa being equal to 20 crore × crore Sāgaras); (and the pink ones are numerable part of the yellow. Those with white (thought-paint) are an innumerable part of a Palya. As to modifications, the three yellow. (pink, and white) are (respectively) an innumerable part of the divisions of visual knowledge. (The pink ones are numerable part of the yellow; the white ones are an innumerable part of the pink).

सट्ठाण समुग्घादे उववादे सव्वलोयमसुहाणं ।

लोयस्सासंखेज्जदिभागं खेत्तं तु तेउतिये ॥५४३॥

अर्थ- विवक्षित लेश्यावाले जीवोंके द्वारा विवक्षित पदमें रहते हुए वर्तमानमें जितना आकाश रुके उसको क्षेत्र कहते हैं । यह क्षेत्र तीन अशुभ लेश्याओंका सामान्यसे स्वस्थान समुद्घात और उपपादकी अपेक्षा सर्वलोकप्रमाण है और तीन शुभलेश्याओंका क्षेत्र लोकप्रमाणके असंख्यातवें भाग मात्र है ।

Trans. 543. The place of (the souls) with (three) bad (thought-paints as) to their own place (svasthāna), overflow (Samudghāta, and) birth-time (is) the whole universe. And (the place of the souls) with three good (thought-paints is) innumerable part of the universe.

मरदि असंखेज्जदिमं तस्सासंखा य विग्गहे होति ।

तस्सासंखं दूरे उववादे तस्स खु असंखं ॥५४४॥

अर्थ- घनांगुलके तृतीय वर्गमूलका जगच्छ्रेणीसे गुणा करनेपर जो प्रमाण हो उतने सौधर्म और ईशान स्वर्गके जीवोंका प्रमाण हैं। इसमें पल्यके असंख्यातवें भागका भाग देनेसे लब्ध एक भाग प्रमाण प्रतिसमय मरनेवाले जीव हैं। मरनेवाले जीवोंके प्रमाणमें पल्यके असंख्यातवें भागका भाग देनेसे जो बहुभागका प्रमाण रहे उतने विग्रहगति करनेवाले जीव हैं। विग्रहगतिवाले जीवोंके प्रमाणमें पल्यके असंख्यातवें भागका भाग देनेसे जो बहुभागका प्रमाण हो उतने मारणान्तिक समुद्घात वाले जीव हैं। इसमें भी पल्यके असंख्यातवें भागका भाग देनेसे लब्ध एकभाग प्रमाण दूर मारणान्तिक समुद्घातवाले जीव हैं। इसमें भी पल्यके असंख्यातवें भागका भाग देनेसे लब्ध एक भागप्रमाण उपपाद जीव हैं। यहाँपर तिर्यचोंकी उत्पत्तिकी अपेक्षासे एक जीवसम्बन्धी प्रदेश फैलनेकी अपेक्षा डेढ़ राजू लम्बा संख्यात सूच्यंगुल प्रमाण चौड़ा वा ऊँचा क्षेत्र है, इसके घन क्षेत्रफलको उपपाद जीवोंके प्रमाणसे गुणा करने पर जो प्रमाण हो उतना ही उपपाद क्षेत्रका प्रमाण है।

Trans. 544. An innumerable part (of the total number of souls) die, its, (of the total), innumerable, (many, parts are in transmigration. An innumerable part (is) in distant (overflow) and an innumerable part of it (is) in birth-place (Upapāda).

सुक्कस्स समुग्घादे असंखलोगा य सव्वलोगो य ।

फासं सव्वं लोयं तिद्वाणे असुहलेस्साणं ॥५४५॥

अर्थ- इस सूत्रके पूर्वार्धमें शुक्ल लेश्याका क्षेत्र लोकके असंख्यात भागोंमेंसे एक भागको छोड़कर शेष बहुभाग प्रमाण वा सर्वलोक बताया है सो केवलसमुद्घातकी अपेक्षासे है। कृष्ण आदि तीन अशुभ लेश्या वाले जीवोंका स्पर्श स्वस्थान, समुद्घात, उपपाद इन तीन स्थानोंमें सामान्यसे सर्वलोक है।

Trans. 545. (The 1st half). The place of a soul with white thought-paint is many innumerable parts of the universe or the whole universe in (the different stages of omniscient overflow). (The second half). The extent of bad thought-paints as to the three places, (i.e., own place (Svasthāna), overflow Samudghāta) and first instant of birth (upapāda) is the whole universe.

तेउस्स य सद्वाणे लोगस्स असंखभागमेत्तं तु ।

अडचोदसभागा वा देसूणा होति णियमेण ॥५४६॥

अर्थ- पीतलेश्याका स्वस्थानस्वस्थानकी अपेक्षा लोकके असंख्यातवें भागप्रमाण स्पर्श है और विहारवत्-स्वस्थानकी अपेक्षा त्रसनालीके चौदह भागोंमेंसे कुछ कम आठ भागप्रमाण स्पर्श है।

Trans. 546. (The extent) of yellow as regards its sphere of birth (Svasthāna svasthāna) and (its sphere of motion Vihāravat-svasthāna) are necessarily an innumerable part of the universe, and a little less than 8 parts out of 14 (of the mobile channel, Trasa Nāḍī, respectively).

एवं तु समुग्घादे णव चोदसभागयं च किंचूणं ।

उववादे पढमपदं दिवहुचोदस य किंचूणं ॥५४७॥

अर्थ- विहारवत्स्थानकी तरह समुद्घातमें भी त्रसनालीके चौदह भागोंमेंसे कुछ कम आठ भागप्रमाण स्पर्श है तथा मारणान्तिक समुद्घातकी अपेक्षा चौदह भागोंमेंसे कुछ कम नव भागप्रमाण स्पर्श है और उपपाद स्थानमें चौदह भागोंमेंसे कुछ कम डेढ़ भागप्रमाण स्पर्श है। इस प्रकार यह पीतलेश्याका स्पर्श सामान्यसे तीन स्थानोंमें बताया है।

Trans. 547. And (the extent is) the same (i.e., a little less than $\frac{8}{14}$ of mobile channel in overflow

(for souls of yellow-thought-paint, but for death-bed overflow it is) a little less than $\frac{9}{14}$ (of mobile channel). And for first instant of birth in transmigration (Upapāda) the extent (Prathama-pada is) a little less than one and half (parts) of 14 (of mobile channel).

पम्मस्स य सट्ठाणसमुग्घाददुगेसु होदि पढमपदं ।

अड चौदस भागा वा देसूणा होंति णियमेण ॥५४८॥

अर्थ- पद्मलेश्याका विहारवत्स्वस्थान, वेदना, कषाय तथा वैक्रियिक समुद्घातमें चौदह भागोंमेंसे कुछ कम आठ भागप्रमाण स्पर्श है। मारणान्तिक समुद्घातमें चौदह भागोंमेंसे कुछ कम आठ भागप्रमाण ही स्पर्श है, क्योंकि पद्मलेश्यावाले देव भी पृथ्वी, जल और वनस्पतिमें उत्पन्न होते हैं। तैजस तथा आहारक समुद्घातमें संख्यात घनांगुलप्रमाण स्पर्श है। यहाँ पर 'च' शब्दका ग्रहण किया है, इसलिए स्वस्थानस्वस्थानमें लोकके असंख्यात भागोंमेंसे एक भागप्रमाण स्पर्श है।

Trans. 548. The extent (prathama pada) of pink (thought paint) for sphere of motion (Vihāravat svasthāna), and for two pairs of overflow, (i.e., anguish and passion, transformation and death-bed overflow) are necessarily a little less than 8 by 14 parts (of mobile channel) and (for sphere of birth, Svasthāna svasthāna it is innumerable part of a universe; and for electric Taijasa and Āhāraka overflow is numerable cubic fingers).

उववादे पढमपदं पणचोडसभागयं च देसूणं ।

सुक्कस्स य तिट्ठाणे पढमो छच्चोदसा हीणा ॥५४९॥

अर्थ- पद्मलेश्या शतार, सहस्रार स्वर्ग पर्यन्त सम्भव है और शतार, सहस्रार स्वर्ग मध्यलोकसे पाँच राजू ऊपर है, इसलिए उपपादकी अपेक्षासे पद्मलेश्याका स्पर्श त्रसनालीके चौदह भागमेंसे कुछ कम पाँच भागप्रमाण है। शुक्ललेश्यावाले जीवोंका स्वस्थानस्वस्थानमें तेजोलेश्याकी तरह लोकके असंख्यातवें भागप्रमाण स्पर्श है और विहारवत्स्वस्थान तथा वेदना, कषाय, वैक्रियिक, मारणान्तिक समुद्घात और उपपाद इन तीन स्थानोंमें चौदह भागमेंसे कुछ कम छह भाग प्रमाण स्पर्श है। तैजस तथा आहारक समुद्घातमें संख्यात घनांगुलप्रमाण स्पर्श है।

Trans. 549. And the extent (of pink-paint) for the instant of birth in transmigration (Upapāda) is little less than five out of fourteen parts (of mobile channel). Of the white (paint) (the extent) for the first, (i.e., sphere of birth Svasthāna svasthāna is an innumerable part of the universe). And for the 3 places, (i.e., sphere of motion, overflow in anguish, passion, transformation, and death-bed and instant of birth

in transmigration, it is) a little less than $\frac{6}{14}$ (of the mobile channel). (And for electric and Āhāraka overflow it is numerable cubic fingers).

णवरि समुग्घादम्मि य संखातीदा हवन्ति भागा वा ।

सव्वो वा खलु लोगो फासो होदित्ति णिदिट्ठो ॥५५०॥

अर्थ- केवलसमुद्घातमें विशेषता है, वह इस प्रकार है कि दण्ड समुद्घातमें स्पर्श क्षेत्रकी तरह संख्यात प्रतरांगुलसे गुणित जगच्छ्रेणीप्रमाण है। स्थित वा उपविष्ट कपाट समुद्घातमें संख्यात सूच्यंगुलमात्र जगत्प्रतर प्रमाण है। प्रतर समुद्घातमें लोकके असंख्यात भागोंमेंसे एक भागकी छोड़कर शेष बहुभागप्रमाण स्पर्श है तथा लोकपूर्ण समुद्घातमें सर्वलोकप्रमाण स्पर्श है।

Trans. 550. But in (the Omniscient Kevalī) overflow (Samudghāta) (in the 4 instants like the stick, Daṇḍa, door-leaves, Kapāṭa, sheet, Pratara and unvierse, Loka-pūraṇa) the extent is (respectively equal to the base line of the universe (Jagat Śreṇī) × numerable square fingers (Pratarāṅgula); the basic area of the universe (Jagat Pratara) × numerable linear fingers (Sūcyaṅgula); innumerable parts (of universe except one); and the whole universe. It has been said.

कालो छल्लेस्साणं पाणाजीवं पडुच्च सव्वद्धा ।

अन्तोमुहुत्तमवरं एगं जीवं पडुच्च हवे ॥५५१॥

अर्थ- नाना जीवोंकी अपेक्षा कृष्ण आदि छहों लेश्याओंका सर्वकाल है क्योंकि छहों लेश्याएँ संसारमें सदा पायी जाती हैं। सामान्यतया किसी भी लेश्यासे रहित कोई काल नहीं है तथा एक जीवकी अपेक्षा सम्पूर्ण लेश्याओंका जघन्य काल अन्तर्मुहूर्त मात्र है।

Trans. 551. With respect to different souls, the time for the 6 thought-paints is the whole time, (some or other souls always has one or other of the thought-paint). With respect to one soul the minimum (time) is one Antar-muhūrta.

उवहीणं तेत्तीसं सत्तर सत्तेव होंति दो चेव ।

अट्टारस तेत्तीसा उक्कस्सा होंति अदिरेया ॥५५२॥

अर्थ- उत्कृष्ट काल कृष्णलेश्याका तेतीस सागर, नीलेश्याका सत्रह सागर, कापोतलेश्याका सात सागर, पीतलेश्याका दो सागर, पद्मलेश्याका अठारह सागर, शुक्ललेश्याका तेतीस सागर और कुछ अधिक है।

Trans. 552. A little more than 33, 17, 7, 2, 18, and 33 Sāgaras are (respectively) the maximum (time) for black, blue, grey, yellow, pink, and white-paints).

अंतरमवरक्कस्सं किण्हतियाणं मुहुत्त अंतं तु ।

उवहीणं तेत्तीसं अहियं होदि ति णिदिदं ॥५५३॥

तेउतियाणं एवं णवरिय उक्कस्स विरहकालो दु ।

पोगलपरिवट्टा हु असंखेज्जा होंति णियमेण ॥५५४॥

अर्थ- कृष्ण आदि तीन अशुभ लेश्याओंका जघन्य अन्तर अन्तर्मुहूर्तमात्र है और उत्कृष्ट अंतर कुछ अधिक तेतीस सागर होता है। पीत आदि तीन शुभ लेश्याओंका अन्तर भी इसी प्रकार है; परन्तु कुछ विशेषता है। शुभ लेश्याओंका उत्कृष्ट अंतर नियमसे असंख्यात पुद्गल परिवर्तन है।

Trans. 553-54. The minimum and maximum interval of the three (black, blue and grey thought-paints) is one Antar-muhūrta and a little more than 33 Sāgaras. This has been said. It is the same for the three yellow (pink and white), but the maximum intervals are necessarily the innumerable matter cycles of existences (Pudgala Parivartana).

भावादो छल्लेस्सा ओदइया होंति अप्पबहुगं तु ।

दव्वपमाणे सिद्धं इदि लेस्सा वण्णिदा होंति ॥५५५॥

अर्थ- भावकी अपेक्षा छहों लेश्याएँ औदयिक हैं; क्योंकि कषायसे अनुरंजित योगपरिणामको ही लेश्या कहते हैं और ये दोनों अपने-अपने योग्य कर्मके उदयसे होते हैं तथा लेश्याओंका अल्पबहुत्व, पहले लेश्याओंका जो संख्या अधिकारमें द्रव्यप्रमाण बताया है उसीसे सिद्ध है। इनमें सबसे अल्प शुक्ल लेश्यावाले जीव हैं, फिर भी उनका प्रमाण असंख्यात है, इनसे असंख्यातगुणे पद्मलेश्यावाले और इनसे भी असंख्यातगुणे पीतलेश्यावाले जीव हैं। पीत लेश्यावालोंसे अनन्तानन्तगुणे कापोतलेश्यावाले हैं, इनसे कुछ अधिक नील लेश्यावाले और इनसे भी कुछ अधिक कृष्णलेश्यावाले जीव हैं।

Trans. 555. As to quality the six-thought-paints are due to the operation (of Karmas). Their quantity has been described as the number of (their) matter (in sub-chapter of number, Sarinkhyā). Thus the paints are described.

किण्हादिलेस्सरहिया संसारविणिग्गया अणंतसुहा ।

सिद्धिपुरं संपत्ता अलेस्सिया ते मुणेयव्वा ॥५५६॥

अर्थ- जो कृष्ण आदि छहों लेश्याओंसे रहित हैं, अतएव जो पंच परिवर्तनरूप संसारसमुद्रके पारको प्राप्त हो गये हैं तथा जो अतीन्द्रिय अनन्त सुखसे तृप्त हैं, आत्मोपलब्धिरूप सिद्धिपुरीको जो प्राप्त हो गये हैं उन जीवोंको अयोगकेवली या सिद्ध भगवान् कहते हैं।

Trans. 556. Freed from thought-paints, black and others, having crossed (the ocean of mundane) existences, possessed of infinite bliss, and having acquired the abode of liberation—such liberated souls or the non-vibratory omniscients, should be known to be Paintless (Aleśyā).

भविया सिद्धी जेसिं जीवाणं ते हवन्ति भवसिद्धा ।

तत्त्विवरीया भव्वा संसारादो ण सिज्झन्ति ॥५५७॥

अर्थ- जिन जीवोंकी अनन्त चतुष्टयरूप सिद्धि होनेवाली हो अथवा जो उसकी प्राप्तिके योग्य हों उनको भवसिद्ध कहते हैं, जिनमें इन दोनोंमेंसे कोई भी लक्षण घटित न हो उन जीवोंको अभव्यसिद्ध कहते हैं।

Trans. 557. The souls whose liberation is to take place (or who have the capacity of liberation) are capable of liberation (Bhavya siddha or Bhavyas). The opposite to these (are) incapable of liberation (Abhavya). They are never liberated from mundane existence.

भवत्तणस्स जोग्गा जे जीवा ते हवन्ति भवसिद्धा ।

ण हु मलविगमे णियमा ताणं कणओवलाणमिदं ॥५५८॥

अर्थ- जो जीव अनन्तचतुष्टयरूप सिद्धिकी प्राप्तिके योग्य हैं, उनको भवसिद्ध कहते हैं, किन्तु यह बात नहीं है कि इस प्रकारके जीवोंका कर्ममल नियमसे दूर हो ही। जैस कनकोपलका।

Trans. 558. (Some) would-be-liberated souls, who are capable of being liberated (Bhavyatva), are such that their dirt (of Karmic matter) like (the dirt of) golden ores (Kanakopala) will certainly never be removed.(are) immaterial (Arūpi).

ण य जे भव्वाभव्वा मुत्तिसुहातीदणंतसंसारा ।

ते जीवा णायव्वा णेव य भव्वा अभव्वा य ॥५५९॥

अर्थ- जिनका पाँच परिवर्तनरूप अनन्त संसार सर्वथा छूट गया है और इसीलिये जो मुक्तिसुखके भोक्ता हैं उन जीवोंको न तो भव्य समझना और न अभव्य समझना चाहिए; क्योंकि अब उनको कोई नवीन अवस्था प्राप्त करना शेष नहीं रही है इसलिये वे भव्य भी नहीं हैं और अनन्त चतुष्टयको प्राप्त हो चुके हैं इसलिये अभव्य भी नहीं हैं।

Trans. 559. Those souls who are neither capable of liberation (Bhavya), nor incapable of liberation (Abhavya), but have the bliss of liberation (and are) beyond the cycle of infinite existence should be known to be neither Bhavya nor Abhavya.

अवरो जुत्ताणंतो अभव्वरासिस्स होदि परिमाणं ।

तेण विहीणो सव्वो संसारी भव्वरासिस्स ॥५६०॥

अर्थ- जघन्य युक्तानन्तप्रमाण अभव्य राशि है और सम्पूर्ण संसारी जीवराशिमेंसे अभव्यराशिका प्रमाण घटाने पर जो शेष रहे उतना ही भव्यराशिका प्रमाण है।

Trans. 560. The total number of souls incapable of liberation (Abhavya) is the minimum secondary infinite (Jaghanya Yuktānanta). All the mundane souls minus these (is) the total (of) souls capable of liberation (Bhavya).

छप्पंचणवविहाणं अत्थाणं जिणवरोवइट्ठाणं ।

आणाए अहिगमेण य सदहणं होइ सम्मत्तं ॥५६१॥

अर्थ- छह द्रव्य, पाँच अस्तिकाय, नव पदार्थ इनका जिनेन्द्रदेवने जिस प्रकार वर्णन किया है उसी प्रकार से इनका जो श्रद्धान करना उसको सम्यक्त्व कहते हैं। यह दो प्रकारसे होता है- एक तो केवल आज्ञासे दूसरा अधिगमसे।

Trans. 561. Belief by authority (Ājñā) or by acquisition through tuition (Adhigama), of 6 (substances, Dravya) 5 embodied substances (Astikāya) and 9 categories (Padārtha) as preached by the Great Conqueror is right-belief (Samyaktva).

छद्वेसु य णामं उवलक्खणुवाय अत्थणे कालो ।

अत्थणखेत्तं संखा ठाणस्सुवं फलं च हवे ॥५६२॥

अर्थ- छह द्रव्योंके निरूपण करनेमें ये सात अधिकार हैं- नाम, उपलक्षणानुवाद, स्थिति, क्षेत्र, संख्या, स्थानस्वरूप, फल। इन सात अधिकारोंके द्वारा छहों द्रव्योंका यहाँ वर्णन किया जायेगा।

Trans. 562. Of the six substances (Dravyas), (there) is a 7 fold treatment in sub-chapters.

(1) Name (Nāma) (2) description or differentia (Upalakṣaṇa-anuvāda), (3) Time of existence (Astitva Kāla), (4) extent of existence (Astitva Kṣetra), (5) Number (Samkhyā), (6) description of degrees (Sthāna svarūpa), (7) Functions (Phala).

जीवाजीवं दव्वं रुवारुवि त्ति होदि पत्तेयं ।

संसारत्था रुवा कम्मविमुक्का अरुवगया ॥५६३॥

अर्थ- द्रव्यके सामान्यतया दो भेद हैं- एक जीवद्रव्य दूसरा अजीव द्रव्य। फिर इनमें भी प्रत्येकके दो-दो भेद हैं- एक रूपी दूसरा अरूपी। जितने संसारी जीव हैं वे सब रूपी हैं; क्योंकि उनका कर्म-पुद्गलके साथ एक क्षेत्रावगाहसम्बन्ध है। जो जीव कर्मसे रहित होकर सिद्ध अवस्थाको प्राप्त हो चुके हैं वे सब अरूपी हैं क्योंकि उनसे कर्मपुद्गलका सम्बन्ध सर्वथा छूट गया है।

Trans. 563. Substances are living (souls, Jīva), and non-living (non-soul, Ajīva), each (of these) is material (Rūpī) and immaterial (Arūpī). Mundane souls (are) material (Rūpī). Souls free from Karmic matter

अज्जीवेसु य रूवी पुग्गलदव्वाणि धम्म इदरो वि ।

आगासं कालो वि य चत्तारि अरुविणो होंति ॥५६४॥

अर्थ- अजीव द्रव्यके पाँच भेद हैं, पुद्गल, धर्म, अधर्म, आकाश और काल। इनमें एक पुद्गल द्रव्य रूपी है और शेष धर्म, अधर्म, आकाश और काल ये चार द्रव्य अरूपी हैं।

Trans. 564. In the non-living, matter substances (Pudgala Dravya are) material (Rūpī). And the four, medium of motion (Dharma), and the other Medium of rest (Adharma), Space (Ākāśa) and time (Kāla) are immaterial (Arūpī).

उवजोगो वण्णचऊ लक्खणमिह जीवपोग्गलाणं तु ।

गदिठाणोग्गहवत्तणकिरियुवयारो दु धम्मचऊ ॥५६५॥

अर्थ- ज्ञान-दर्शनरूप उपयोग जीवद्रव्यका लक्षण है। वर्ण, गन्ध, रस, स्पर्श, यह पुद्गलद्रव्यका लक्षण है। जो गमन करते हुए जीव और पुद्गलद्रव्यको गमन करनेमें सहकारी हो उसको धर्मद्रव्य कहते हैं, जो ठहरे हुए जीव तथा पुद्गलद्रव्यको ठहरनेमें सहकारी हो उसको अधर्मद्रव्य कहते हैं, जो सम्पूर्ण द्रव्योंको स्थान देनेमें सहायक हो उसको आकाश कहते हैं जो समस्त द्रव्योंके अपने-अपने स्वभावमें वर्तनेका सहकारी है उसको काल कहते हैं।

Trans. 565. The differentia (Lakṣaṇa) of soul, matter and the four (other substances), medium of motion (medium of rest, space and time respectively, are) attention (Upayoga); the four attributes, colour, (smell, taste and touch), auxiliary help in the activity of motion (of soul and matter), of rest (of soul and matter), giving place (to all substances); and of alteration (in substances).

गदिठाणोग्गहकिरिया जीवाणं पुग्गलाणमेव हवे ।

धम्मतिथे ण हि किरिया मुक्खा पुण साधका होति ॥५६६॥

अर्थ- गमन करनेकी या ठहरनेकी तथा रहनेकी क्रिया जीवद्रव्य तथा पुद्गलद्रव्यकी ही होती है। धर्म, अधर्म, आकाशमें ये क्रिया नहीं होती, क्योंकि न तो ये एक स्थानसे चलायमान होते हैं; और न प्रदेश ही चलायमान होते हैं किन्तु ये तीनों ही द्रव्य जीव और पुद्गलकी उक्त तीनों क्रियाओंके मुख्य साधक हैं।

Trans. 566. The activity of motion, rest and occupation of space is only in soul and matter (substances). In the three, medium of motion, (and of rest and space, there is) no (such) activity. But they are the important causes (of the three activities, respectively).

जत्तस्स पढं ठत्तस्स आसणं णिवसगस्स वसदी वा ।

गदिठाणोग्गहकरणे धम्मतिथं साधगं होदि ॥५६७॥

अर्थ- गमन करनेवालेको मार्गकी तरह धर्म द्रव्य जीव पुद्गलकी गतिमें सहकारी होता है। ठहरनेवालेको आसनकी तरह अधर्म द्रव्य जीव पुद्गलकी स्थितिमें सहकारी होता है। निवास करनेवालेको मकानकी तरह आकाशद्रव्य जीव पुद्गल आदिको अवगाह देनेमें सहकारी होता है।

Trans. 567. (Like) the road for the traveller, seat for the sitter, and the house for the resident, the three, medium of motion (and of rest, and space) are the auxiliary causes in effecting motion, rest and giving of space (respectively).

वत्तणहेदू कालो वत्तणगुणमविय दव्वणिचयेसु ।

कालाधारेणेव य वट्ठंति हु सव्वदव्वाणि ॥५६८॥

अर्थ- सम्पूर्ण द्रव्योंका यह स्वभाव है कि वे अपने-अपने स्वभावमें सदा ही वर्तें। परन्तु उनका यह वर्तना किसी बाह्य सहकारीके बिना नहीं हो सकता, इसलिए इनको वर्तानेवाला सहकारी कारण वर्तनागुण जिसमें पाया जाय उसको काल कहते हैं, क्योंकि कालके आश्रयसे ही समस्त द्रव्य वर्तते हैं।

Trans. 568. Time is the cause of alteration (Vartanā). The attribute of altering is in all the (six) substances. And all substances alter only by the support (Ādhāra) of time (substance).

धम्माधम्मादीणं अगुरुलहुगं तु छहिं वि वट्ठीहिं ।

हाणीहिं वि वट्ठतो हायतो वट्ठदे जम्हा ॥५६९॥

अर्थ- धर्मादिक द्रव्योंमें अगुरुलघु नामका एक गुण है। इस गुणमें तथा इसके निमित्तसे धर्मादिक द्रव्यके शेष गुणोंमें छह प्रकारकी वृद्धि तथा छह प्रकारकी हानि होती है और इन वृद्धि हानिके निमित्तसे वर्धमान तथा हीयमान धर्मादि द्रव्योंमें वर्तना सम्भव है।

Trans. 569. Because in the media of motion and rest, etc., (i.e., in the six substances), (there is an attribute of) individuality (Agurulaghu, by means of which a substance never loses its own essential and peculiar attributes and never acquires the peculiar and essential attributes of any other substance), (and this attribute of individuality) alters (Vartate) itself by increasing by 6 increases or by decreasing by (6) decreases in its infinitesimal degrees (Avibhāga Praticcheda).

ण य परिणमदि सयं सो ण य परिणामेइ अण्णमण्णेहिं ।

विविहपरिणमियाणं हवदि हु कालो सयं हेदू ॥५७०॥

अर्थ- परिणामी होनेसे कालद्रव्य दूसरे द्रव्यरूप परिणत हो जाये यह बात नहीं है, वह न तो स्वयं दूसरे द्रव्यरूप परिणत होता है और न दूसरे द्रव्योंको अपने स्वरूप अथवा भिन्न द्रव्यस्वरूप परिणामाता है; किन्तु अपने-अपने स्वभावसे ही अपने-अपने योग्य पर्यायोंसे परिणत होनेवाले द्रव्योंके परिणमनमें कालद्रव्य उदासीनतासे स्वयं बाह्य सहकारी हो जाता है।

Trans. 570. Time never alters itself into the other (5 substances). nor does it change the other (substances into itself). It is merely the auxiliary help to the other (substances) characterised by different kinds of alterations.

कालं अस्मिन् द्रव्यं सगसगपज्जाय परिणदं होदि ।

पज्जायावद्वाणं सुद्धणये होदि खणमेत्तं ॥५७१॥

अर्थ- कालके आश्रयसे प्रत्येक द्रव्य अपने योग्य पर्यायोंसे परिणत होता है। इन पर्यायोंकी स्थिति शुद्धनयसे एक क्षणमात्र रहती है।

Trans. 571. By the support of time, (each) substance is altered in its own modifications. The duration of (each of these) modifications is an instant only from the pure real standpoint (i.e., from the actual conditional stand-point, Rju sūtra Paryāyārthika naya).

ववहारो य वियप्पो भेदो पज्जओ ति एयद्धो ।

ववहार अवद्वाणद्धिवी हु ववहारकालो दु ॥५७२॥

अर्थ- व्यवहार, विकल्प, भेद, तथा पर्याय इन शब्दोंका एक ही अर्थ है। अर्थात् एक ही अर्थके ये पर्यायवाचक शब्द हैं। व्यंजनपर्यायके वर्तमानरूपमें ठहरनेका जितना काल है उतने कालको व्यवहारकाल कहते हैं।

Trans. 572. Vyavahāra, Vikalpa, Bheda and Paryāya (are) synonymous, (signifying modification). The duration of modification (Vyavahāra) (is) practical time (Vyavahāra Kāla).

अवरा पज्जायठिदी खणमेत्तं होदि तं च समओ ति ।

दोण्हमणूणमदिक्कमकालपमाणं हवे सो दु ॥५७३॥

अर्थ- सम्पूर्ण द्रव्योंकी पर्यायकी जघन्य स्थिति एक क्षणमात्र होती है, इसीको समय कहते हैं। दो परमाणुओंके अतिक्रमण करनेके कालका जितना प्रमाण है उसको समय कहते हैं।

Trans. 573. The minimum duration of modification (Paryāyā) is only an instant. That (alone is) Samaya (instant). It amounts to the time taken by one atom in passing over to the other (where two atoms are placed side by side in space).

आवलिअसंखसमया संखेज्जावलि समूहमुस्सासो ।

सत्तुस्सासा थोवो सत्तत्थोवा लवो भणियो ॥५७४॥

अर्थ- असंख्यात समयकी एक आवली होती है। संख्यात आवलीका एक उच्छ्वास होता है। सात उच्छ्वास एक स्तोक होता है। सात स्तोकका एक लव होता है।

Trans. 574. A wink or Āvalī (consists of minimum-advanced-innumerable instants, Jaghanya Yuktāsankhyāta samaya). Numerable Āvalīs together (make) one pulse-beat (Ucchavāsa), seven pulse-beats (make) one stoka. Lava is said to consist of seven stokas.

अट्ठत्तीसद्धवला णाली वेणालिया मुहुत्तं तु ।

एगसमयेण हीणं भिण्णमुहुत्तं तदो सेसं ॥५७५॥

अर्थ- साढ़े अड़तीस लवकी एक नाली (घड़ी) होती है। दो घड़ीका एक मुहूर्त होता है। इसमें एक समय कम करनेसे भिन्नमुहूर्त अथवा अन्तर्मुहूर्त होता है तथा इसके आगे दो, तीन, चार आदि समय कम करनेसे अन्तर्मुहूर्तके भेद होते हैं।

Trans. 575. Thirty-eight and a half Lava (make) one Nālī (Ghaḍī=24 minutes). And two nālīs (make) one Muhūrta (=48 minutes). (One muhūrta) minus one Samaya or more (i.e., minus 2 or more instants till the result is one Āvalī and one Samaya) is one Bhinna or (Antar)-muhūrta.

दिवसो पक्खो मासो उडु अयणं वस्समेवमादी हु ।

संखेज्जासंखेज्जाणंताओ होदि ववहारो ॥५७६॥

अर्थ- तीस मुहूर्तका एक दिवस (अहोरात्र), पन्द्रह अहोरात्रका एक पक्ष, दो पक्षका एक मास, दो मासकी एक ऋतु, तीन ऋतुका एक अयन, दो अयनका एक वर्ष इत्यादि व्यवहार कालके आवलीसे लेकर संख्यात, असंख्यात, अनन्त भेद होते हैं।

Trans. 576. (30 Muhūrtas make) one day (and night). (15 days and nights make) one fortnight, (2 fortnight make) one month. (2 months make) one season (Rtu), (3 seasons or Rtu make) one half year (Ayana). (2 ayana make) one year, and there are other (measures of time), the numerable, innumerable and infinite divisions of practical time (Vyavahāra Kāla).

ववहारो पुण कालो माणुसखेत्तहि जाणिदव्वो दु ।

जोइसियाणं चारे ववहारो खलु समाणो त्ति ॥५७७॥

अर्थ- परन्तु यह व्यवहार काल मनुष्यक्षेत्रमें ही समझना चाहिये, क्योंकि मनुष्यक्षेत्रके ही ज्योतिषी देवोंके विमान गमन करते हैं और इनके गमनका काल तथा व्यवहार काल दोनों समान हैं।

Trans. 577. But this practical time (Vyavahāra Kāla) should be known in the human region ($2\frac{1}{2}$

continents up to the Mānuṣottara Mountain); because the practical (time) corresponds to the movements of the stellars (with their abodes Vimāna).

ववहारो पुण तिविहो तीदो वट्ठंगो भविस्सो दु ।

तीदो संखेज्जावलि हदसिद्धाणं पमाणं तु ॥५७८॥

अर्थ- व्यवहारकालके तीन भेद हैं- भूत, वर्तमान, भविष्यत्। इनमेंसे सिद्धराशिका संख्यात आवलीके प्रमाणसे गुणा करनेपर जो प्रमाण हो उतना ही अतीत अर्थात् भूतकालका प्रमाण है।

Trans. 578. Practical time is further of 3 kinds, past, present and future. Past time (is equal) to the number of the liberated souls multiplied by numerable winks (Āvalīs).

समओ हु वट्ठमाणो जीवादो सव्वपुग्गलादो वि ।

भावी अणंतगुणिदो इदि ववहारो हवे कालो ॥५७९॥

अर्थ- वर्तमान कालका प्रमाण एक समय है। सम्पूर्ण जीवराशि तथा समस्त पुद्गलद्रव्यराशिसे भी अनंतगुणा भविष्यत् कालका प्रमाण है। इस प्रकार व्यवहार कालके तीन भेद होते हैं।

Trans. 579. The present is one instant. The future practical time is infinite times (the total of all) souls and all matter (substances).

कालो वि य ववएसो सम्भावपरूवओ हवदि णिच्चो ।

उप्पणप्पद्धंसी अवरो दीहंतरट्ठाई ॥५८०॥

अर्थ- काल यह व्यपदेश (संज्ञा) मुख्यकालका बोधक है; निश्चयकाल द्रव्यके अस्तित्वको सूचित करता है क्योंकि बिना मुख्यके गौण अथवा व्यवहारकी प्रवृत्ति नहीं हो सकती। यह मुख्य काल द्रव्याधिक नयकी अपेक्षा नित्य है तथा पर्यायार्थिक नयकी अपेक्षा उत्पन्न-ध्वंसी है तथा व्यवहारकाल वर्तमानकी अपेक्षा उत्पन्नध्वंसी है और भूत भविष्यत्की अपेक्षा दीर्घान्तरस्थायी है। इस प्रकार छह द्रव्योंका निरूपण करनेवाले सात अधिकारोंमेंसे दूसरा उपलक्षणानुवाद अधिकार पूर्ण हुआ।

Trans. 580. And the very name "Time" (Kāla) itself is an index to the (Time) substance itself, (which as a substance is) permanent, (but) rises and decays (as regards its modification). And the other (i.e., practical time rises and decays like present time, but is) of a very long duration (as past and future).

छद्वावद्वाणं सरिसं तियकाल अत्थपज्जाये ।

वैजणपज्जाये वा मिलिदे ताणं ठिदितादो ॥५८१॥

अर्थ- अवस्थान स्थिति छहों द्रव्योंकी समान है क्योंकि त्रिकालसम्बन्धी अर्थपर्याय वा व्यंजनपर्यायके मिलनेसे ही उनकी स्थिति होती है।

Trans. 581. The time of existence of the six substances is the same, (for all). Its duration is got by adding together their modifications in attributes (Artha Paryāya) and their modifications in space (Vyañjana Paryāya) in all the three times (present, past and future).

एयदवियम्मि जे अत्थपज्जया वियण पज्जया चावि ।

तीदाणागद भूदा तावदियं तं हवदि दव्वं ॥५८२॥

अर्थ- एक द्रव्यमें जितनी त्रिकालसम्बन्धी अर्थपर्याय और व्यंजन पर्याय हैं उतना ही द्रव्य है।

Trans. 582. Whatever modifications take place in a substance in its attributes (Artha Paryāya) or in space (Vyañjana Paryāya) in the past, the future and (the present), they constitute the substance.

आगासं वज्जित्ता सव्वे लोगम्मि चेव नत्थि वहिं ।

वावी धम्मा अवट्ठिदा अचलिदा णिच्चा ॥५८३॥

अर्थ- आकाशको छोड़कर शेष समस्त द्रव्य लोकमें ही हैं बाहर नहीं हैं। तथा धर्म और अधर्म द्रव्य व्यापक हैं, अवस्थित हैं, अचलित हैं और नित्य हैं।

Trans. 583. Except space, all the substances exist only in the universe (Loka), not beyond it (i.e., in the non-universe). (And the substance), media of motion and rest (Dharma and Adharma) are (all) pervading (vyāpī), fixed (Avasthita), un-quivering (Acalita in their units, Pradeśas), and permanent.

लोगस्स असंखेज्जदि भागप्पहुदिं तु सव्व लोगोत्ति ।

अप्पदेसविसप्पण . संहारे वावडो जीवो ॥५८४॥

अर्थ- एक जीव अपने प्रदेशों के संहार विसर्पकी अपेक्षा लोकके असंख्यातवें भागसे लेकर सम्पूर्ण लोक तकमें व्याप्त होकर रहता है।

Trans. 584. By the expansion and contraction of its units (Pradeśa) one soul expands from an innumerable part of the universe etc., up to the whole universe.

पोग्गलदव्वाणं पुण एयपदेसादि होति भजणिज्जा ।

एक्केक्को दु पदेसो कालाणूणं धुवो होदि ॥५८५॥

अर्थ- पुद्गल द्रव्यका क्षेत्र एक प्रदेशसे लेकर यथासम्भव समझना चाहिए- जैसे परमाणुका एक प्रदेश प्रमाण ही क्षेत्र है तथा द्व्यणुकका एक प्रदेश और दो प्रदेश भी क्षेत्र है। त्र्यणुकका एक प्रदेश, दो प्रदेश और तीन प्रदेश भी क्षेत्र है इत्यादि किन्तु एक-एक कालाणुका क्षेत्र एक-एक प्रदेश ही निश्चित है।

Trans. 585. (The extents) of the matter substances, (atom, molecules etc., etc.) are one spatial unit, etc., as necessary, (up to the whole universe). (And the extent) of (each) of the atoms of time (Kālāṇu) is permanent i.e., one spatial unit (Pradeśa).

संखेज्जासंखेज्जाणंता वा होति पोग्गलपदेसा ।

लोगागासेव ठिदी एगपदेसो अणुस्स हवे ॥५८६॥

अर्थ- पुद्गल द्रव्यके स्कन्ध संख्यात, असंख्यात तथा अनन्त परमाणुओंके हैं परन्तु उन सबकी स्थिति लोकाकाशमें ही हो जाती है किन्तु एक अणु एक ही प्रदेशमें रहता है।

Trans. 586. (The molecules of) matter (substance) are (composed) of numerable, innumerable, and infinite atoms. (Their) existence (is) in the universe only. (But the existence) of an atom is in one spatial unit (Pradeśa) alone.

लोगागासपदेसा छद्द्वेहिं फुडा सदा होंति ।
सव्वमलोगागासं अण्णेहिं विवज्जियं होदि ॥५८७॥

अर्थ- लोकाकाशके समस्त प्रदेशोंमें छहों द्रव्य व्याप्त हैं और अलोकाकाश आकाशको छोड़कर शेष द्रव्योंसे सर्वथा रहित है।

Trans. 587. The spatial units (Pradeśa) of the universe are always packed full with the six substances. And the whole non-universe is without all the other (substances except space).

जीवा अणंतसंखाणंतगुणा पुग्गला हु तत्तो दु ।
धम्मतिंयं एक्केक्कं लोगपदेसप्पमा कालो ॥५८८॥

अर्थ- जीव द्रव्य अनन्त हैं, उससे अनन्तगुणे पुद्गल द्रव्य हैं। धर्म, अधर्म, आकाश ये एक-एक द्रव्य हैं क्योंकि ये प्रत्येक अखण्ड एक-एक हैं तथा लोकाकाशके जितने प्रदेश हैं उतने ही कालद्रव्य हैं।

Trans. 588. The number of souls (is) infinite. Infinite times of that (is the number of) matter (substances). And the three, (the two) media of motion (and rest, and space are) each, one (in number). Time (is equal to) the number of the (innumerable) spatial units of the universe.

लोगागासपदेसे एक्केक्के जे ठिया एक्केक्का ।
रयणाणं रासी इव ते कालाणु मुणेयव्वा ॥५८९॥

अर्थ- वे कालाणु रत्नराशिकी तरह लोकाकाशके एक-एक प्रदेशमें एक-एक स्थित हैं ऐसा समझना चाहिए।

Trans. 589. In each spatial unit of the universe, they, i.e., the (points of time) are certainly fixed one by one like a heap of jewels. Those points of time (Kālāṇu) should be known (to be innumerable).

ववहारो पुण कालो पोग्गलदव्वादणंतगुणमेत्तो ।
तत्तो अणंतगुणिदा आगासपदेस परिसंखा ॥५९०॥

अर्थ- पुद्गल द्रव्यके प्रमाणसे अनन्त गुणा व्यवहार कालका प्रमाण है तथा व्यवहार कालके प्रमाणसे अनन्तगुणी आकाशके प्रदेशोंकी संख्या है।

Trans. 590. But the practical time is infinite times the matter substances. And the infinite times of that (is) the number of the spatial units (Pradeśa) in space (universe and non-universe).

लोगागास पदेसा धम्माधम्मोग जीवगपदेसा ।
सरिसा हु पदेसो पुण परमाणु अवट्ठिदं खेत्तं ॥५९१॥

अर्थ- धर्म, अधर्म, एक जीवद्रव्य तथा लोकाकाश इनमेंसे प्रत्येककी प्रदेशसंख्या परस्परमें समान जगच्छ्रेणीके घन प्रमाण है और जितने क्षेत्रको एक पुद्गलपरमाणु रोकता है उतने क्षेत्रको प्रदेश कहते हैं।

Trans. 591. The spatial units of the universe and the units (Pradeśa) of media of motion (Dharma) and rest (Adharma) and of one soul are equal (in number). And a spatial unit (Pradeśa) is the space occupied by an (indivisible). atom.

सव्वमरूवी दव्वं अवट्ठिदं अचलिदा पदेसा वि ।
रूवी जीवा चलिया तिवियप्पा होंति हु पदेसा ॥५९२॥

अर्थ- सम्पूर्ण अरूपी द्रव्य अवस्थित हैं। जहाँ स्थित हैं वहाँ ही सदा स्थित रहते हैं तथा इनके प्रदेश भी चलायमान नहीं होते किन्तु रूपी (संसारी) जीव द्रव्य चल हैं। सदा एक ही स्थान पर नहीं रहा करते तथा इनके प्रदेश भी तीन प्रकारके होते हैं।

Trans. 592. All the immaterial substances (are) fixed, and their units (Pradeśa) also (are) un-quivering. The material (mundane) souls quiver and (their) units are of 3 kinds.

पोग्गलदव्वम्हि अणू संखेज्जादी हवन्ति चलिदा हु ।

चरिममहक्खंधम्हि य चलाचला होंति हु पदेसा ॥ ५६३॥

अर्थ- पुद्गल द्रव्यमें परमाणु तथा संख्यात, असंख्यात आदि अणुके जितने स्कन्ध हैं वे सभी चल हैं किन्तु एक अन्तिम महास्कन्ध चलाचल है क्योंकि उसमें कोई भाग चल है और कोई भाग अचल है।

Trans. 593. In the matter substance, atoms (and molecules of) numerable, etc., (i.e., of innumerable and infinite atoms) are (all) quivering. But the atoms (Pradeśa-Paramāṇu) in the last maximum molecule (Mahāskandha) are quivering and non-quivering; (as in it, some atoms quiver and others do not).

अणुसंखासंखेज्जा णंता य अगेज्जगेहि अंतरिया ।

आहारतेजभासा मण कम्मइया ध्रुवक्खंधा ॥५६४॥

सांतरणिरंतरेण य सुण्णा पत्तिय देहध्रुवसुण्णा ।

बादरणिगोदसुण्णा सुहुमणिगोदा णभो महक्खंधा ॥५६५॥

अर्थ- पुद्गल वर्गणाओंके तेईस भेद हैं- अणुवर्गणा, संख्याताणुवर्गणा, असंख्याताणुवर्गणा, अनन्ताणुवर्गणा, आहारवर्गणा, अग्राह्यवर्गणा, तैजसवर्गणा, अग्राह्यवर्गणा, भाषावर्गणा, अग्राह्यवर्गणा, मनोवर्गणा, अग्राह्यवर्गणा, कर्मणवर्गणा, ध्रुववर्गणा, सांतरनिरंतरवर्गणा, शून्यवर्गणा, प्रत्येकशरीरवर्गणा, ध्रुवशून्यवर्गणा, बादरनिगोदवर्गणा, शून्यवर्गणा, सूक्ष्मनिगोदवर्गणा, नभोवर्गणा, महास्कन्धवर्गणा।

Trans. 594-95. (There are 23 kinds of molecules-Vargaṇā) :-

1. Atom (-aṇu vargaṇā),
2. Numerable (-atoms-molecule, Saṁkhyātāṇu-Vargaṇā),
3. Innumerable (-atoms-molecule, Asaṁkhyātāṇu-Vargaṇā),
4. Infinite (-atoms-molecule, Anantāṇu-Vargaṇā),
5. Assimilation (-molecule, Āhāra-Vargaṇā),
6. Unreceivable (-molecule, Agrāhya-Vargaṇā),
7. Electric (molecule, Taijasa-Vargaṇā),
8. Unreceivable (-molecule, Agrāhya-Vargaṇā),
9. Speech (-molecule, Bhāṣhā-Vargaṇā),
10. Unreceivable (-molecule, Agrāhya-Vargaṇā),
11. Mind (-molecule, mano-Vargaṇā),
12. Unreceivable (-molecule, Agrāhya-Vargaṇā),
13. Karmic (-molecule, Kārmaṇa-Vargaṇā),
14. Fixed (-molecule, Dhruva-Vargaṇā),
15. Inter-non-inter (-molecule Sāntara-nirantara-Vargaṇā),
16. Indifferent (-molecule, Śūnya-Vargaṇā),
17. Individual-body (-molecule Pratyeka Śarira-Vargaṇā),
18. Fixed-indifferent (-molecule, Dhruva Śūnya-Vargaṇā),
19. Gross-common body (-molecule, Vādara Nigoda-Vargaṇā),
20. Indifferent (-molecule, Śūnya-Vargaṇā),
21. Fine-common-body (-molecule, Sūkṣma Nigoda-Vargaṇā),
22. Sphere (-molecule, Nabho-Vargaṇā), and
23. Great (-molecule, (Mahā-skandha-Vargaṇā).

परमाणुवर्गणम्पि ण अवरुक्कस्सं च सेसगे अत्थि ।

गेज्झमहक्खंधाणं वरमहियं सेसगं गुणियं ॥५६६॥

अर्थ- तेईस प्रकारकी वर्गणाओंमेंसे अणुवर्गणामें जघन्य-उत्कृष्ट भेद नहीं है। शेष बाईस जातिकी वर्गणाओंमें जघन्य उत्कृष्ट भेद हैं तथा इन बाईस जातिकी वर्गणाओंमें आहारवर्गणा, तैजसवर्गणा, भाषावर्गणा, मनोवर्गणा, कर्मणवर्गणा ये पाँच ग्राह्य वर्गणा और एक महास्कन्ध वर्गणा इन छह वर्गणाओंके जघन्यसे उत्कृष्ट भेद प्रतिभागकी अपेक्षा से हैं किन्तु शेष सोलह जातिकी वर्गणाओंके जघन्य-उत्कृष्ट भेद गुणकारकी अपेक्षासे हैं।

Trans. 596. There is no minimum and maximum in the atom molecules (Paramāṇu-Vargaṇā), but they are in the rest. In the (5) receivable (i.e. assimilation Āhāra; electric, Taijasa; speech, Bhāshā; mind, mana; and Kārmaṇa molecules) and in the great molecule Mahā-skandha, the maximum (is got) by adding (the proper quotient to the minimum). In the others, (it is got) by multiplication.

सिद्धाणंतिमभागो पडिभागो गेज्झगाण जेट्ठं ।

पल्लासंखेज्जदिमं अंतिमं खंधस्स जेट्ठं ॥५६७॥

अर्थ- पाँच ग्राह्य वर्गणाओंका उत्कृष्ट भेद निकालनेके लिये प्रतिभागका प्रमाण सिद्धराशिके अनन्तवें भाग है और अन्तिम महास्कन्धका उत्कृष्ट भेद निकालनेके लिये प्रतिभागका प्रमाण पल्यके असंख्यातवें भाग है।

Trans. 597. For the maximum of the receivable (5 molecules) the divisor is an infinite part of (the total number of liberated) souls, and for the maximum of the last Great molecule (it is) an innumerable part of a Palya.

संखेज्जासंखेज्जे गुणगारो सो दु होदि हु अणंते ।

चत्तारि अगेज्जेसु वि सिद्धाणमणंतिमो भागो ॥५६८॥

अर्थ- संख्याताणुवर्गणा और असंख्याताणवर्गणामें गुणकारका प्रमाण अपने-अपने उत्कृष्टमें अपने-अपने जघन्यका भाग देनेसे जो लब्ध आवे उतना है। इस गुणकारके साथ अपने-अपने जघन्यका गुणा करनेसे अपना-अपना उत्कृष्ट भेद निकलता है और अनंताणुवर्गणा तथा चार अग्राह्यवर्गणाओंके गुणकारका प्रमाण सिद्धराशिके अनन्तवें भाग मात्र है। इस गुणकारके साथ अपने-अपने जघन्यका गुणा करनेसे अपना-अपना उत्कृष्ट भेद निकलता है।

Trans. 598. In the numerable (atom molecules) and in the innumerable (atom molecules), the multiplier is (its maximum divided by its minimum), and that for the infinite-atom molecules and the 4 unreceivable molecules is the infinite part of the liberated souls.

जीवादोणंत गुणो धुवादितिण्हं असंखभागो दु ।

पल्लस्स तदो तत्तो असंखलोगवहिदो मिच्छो ॥५६९॥

अर्थ- ध्रुववर्गणा, सांतरनिरंतरवर्गणा, शून्यवर्गणा इन तीन वर्गणाओंका उत्कृष्ट भेद निकालनेके लिये गुणकारका प्रमाण जीवराशिसे अनन्त गुणा है, प्रत्येक शरीर वर्गणाका गुणकार पल्यके असंख्यातवें भाग है और ध्रुवशून्यवर्गणाका गुणकार, मिथ्यादृष्टि जीव राशिमें असंख्यात लोकका भाग देनेसे जो लब्ध आवे, उतना है। इस गुणकारके साथ जघन्य भेदका गुणा करनेसे उत्कृष्ट भेदका प्रमाण निकलता है।

Trans. 599. (The multiplier) for the three fixed (Dhruva, inter-non-inter Sāntara nirantara, and indifferent Śūnya molecules, (is) the infinite times (the total number of) the souls, and for the next (i.e. individual-body-molecule Pratyek-Śārrira Vargaṇā is) an innumerable part of a Palya, and then (for the fixed different molecule Dhruva Śūnya Vargaṇā) is (the number of) wrong (believing souls) divided by innumerable into innumerable spatial units of the universe.

सेढी सूई पल्ला जगपदरा संखभाग गुणगारा ।
अप्पप्पणअवरादो उक्कस्से होति णियमेण ॥६००॥

अर्थ- बादरनिगोदवर्गणा; शून्यवर्गणा, सूक्ष्मनिगोदवर्गणा, नभोवर्गणा इन चार वर्गणाओंके उत्कृष्ट भेदका प्रमाण निकालनेके लिये गुणकारका प्रमाण क्रमसे जगच्छ्रेणीका असंख्यातवाँ भाग, सूच्यंगुलका असंख्यातवाँ भाग, पल्यका असंख्यातवाँ भाग, जगत्प्रतरका असंख्यातवाँ भाग है। अपने-अपने गुणकारके प्रमाणसे अपने-अपने जघन्यका गुणा करनेसे अपने-अपने उत्कृष्ट भेदका प्रमाण निकलता है।

Trans. 600. An innumerable part of the base line of universe (Jagat-Śreni), linear finger (Sūcyaṅgula), Palya, and basic area of universe (Jagat-Pratara) necessarily become multipliers of the minima to (produce) the maxima (respectively of Gross common, Vādara Nigoda; indifferent, Śūnya; fine-common, Sūkṣma Nigoda; and sphere, Nabho, molecules).

हेडिम उक्कस्सं पुण रूवहियं उवरिमं जहण्णं खु ।
इदि तेवीस वियप्पा पुग्गलदव्वा हु जिणदिट्ठा ॥६०१॥

अर्थ- तेइस वर्गणाओंमेंसे अणुवर्गणाको छोड़कर शेष बाईस वर्गणाओंमें नीचेकी वर्गणाके उत्कृष्ट भेदका जो प्रमाण है उसमें एक मिलानेसे आगेकी वर्गणाके जघन्य भेदका प्रमाण होता है। जैसे संख्याताणुवर्गणाके उत्कृष्ट भेदका जो प्रमाण है उसमें एक मिलानेसे असंख्याताणुवर्गणाका जघन्य भेद होता है और असंख्याताणुवर्गणाके उत्कृष्ट भेदमें एक मिलानेसे असंख्याताणुवर्गणाका जघन्य भेद होता है। इसी तरह आगे भी समझना। इसी क्रमसे पुद्गल स्कन्ध-द्रव्यके बाईस भेद होते हैं; किन्तु एक अणुवर्गणाको मिलानेसे पुद्गलद्रव्यके तेईस भेद हो जाते हैं; यह जिनेन्द्रदेवने कहा है।

Trans. 601. (From the second to the 23rd molecule) each is one more than the maximum of the one immediately preceding it. Thus matter substances with their 23 kinds have been described by the Conqueror (Jina).

पुढवी जलं च छाया चउरिंदिय विसयकम्मपरमाणु ।
छव्विहमेयं भणियं पोग्गलदव्वं जिणवरेहिं ॥६०२॥

अर्थ- पुद्गलद्रव्यको जिनेन्द्रदेवने छह प्रकारका बताया है। जैसे- १ पृथ्वी, २ जल, ३ छाया, ४ नेत्रको छोड़कर शेष चार इन्द्रियोंका विषय, ५, कर्म, ६ परमाणु।

Trans. 602. Earth, water, shade, objects of the four senses (touch, taste, smell and hearing), Karmic mater, and an atom, (are examples of) the six divisions of matter substance as described by the Conquerors.

बादरबादर बादर बादरसुहुमं च सुहुमथूलं च ।
सुहुमं च सुहुमसुहुमं धरादियं होदि छब्भेयं ॥६०३॥

अर्थ- बादरबादर, बादर, बादरसूक्ष्म, सूक्ष्मबादर, सूक्ष्म, सूक्ष्मसूक्ष्म इस तरह पुद्गलद्रव्यके छह भेद हैं, जैसे उक्त पृथ्वी आदि।

Trans. 603. Gross-gross (Vādara Vādara), gross (Vādara), gross-fine (Vādara Sūkṣma), fine-gross (Sūkṣma-Vādara), Fine (Sūkṣma), and fine-fine (Sūkṣma-Sūkṣma) are the six kinds, of which) earth, etc., (in the last gāthā are examples).

खंधं सयलसमत्थं तस्स य अद्धं भणंति देसोत्ति ।
अद्धं च पदेसो अविभागी चेव परमाणू ॥६०४॥

अर्थ- जो सर्वांशमें पूर्ण है^० उसको स्कन्ध कहते हैं। उसके आधेको देश और आधेके आधेको प्रदेश कहते हैं, जो अविभागी है उसको परमाणु कहते हैं।

Trans. 604. (They) describe the molecule (skandha as) complete all round, (sakala samartha); its half as Deśa; half of its half as Pradeśa; and (that which is) indivisible, as an atom (Parmāṇu).

गदिठाणोग्गह किरिया साधणभूदं खु होदि धम्मतियं ।

वत्तणकिरियासाहणभूदो गियमेण कालो दु ॥६०५॥

अर्थ- गति, स्थिति अवगाह इन क्रियाओंके साधन क्रमसे धर्म, अर्धम, आकाश द्रव्य हैं और वर्तना क्रियाका साधन काल द्रव्य है।

Trans. 605. The auxiliary causes of the activity of motion and rest, and of occupying space are certainly the three media of motion, (dharma), rest, Adharma, and space Ākāśa) And the auxiliary cause of the activity of alteration (Vartaṇā) in necessarily time.

अण्णोण्णुवयारेण य जीवा वट्ठति पुग्गलाणि पुणो ।

देहादिणिव्वत्तण कारणभूदा हु गियमेण ॥६०६॥

अर्थ- जीव परस्परमें उपकार करते हैं। जैसे सेवक स्वामीकी हितसिद्धिमें प्रवृत्त होता है, स्वामी सेवक को धनादि देकर संतुष्ट करता है तथा पुद्गल शरीरादि उत्पन्न करनेमें कारण है।

Trans. 606. (Mundane) souls undergo alteration as they affect each other. And matters (are necessarily the auxiliary) causes in the making of body, etc. (And matters, also affect each other).

आहारवग्गणादो तिण्णि सरीराणि होति उस्सासो ।

णिस्सासो वि य तेजो वग्गण खंधादु तेजंगं ॥६०७॥

अर्थ- तेईस जातिकी वर्गणाओंमेंसे आहारवर्गणाके द्वारा औदारिक, वैक्रियिक, आहारक ये तीन शरीर और श्वासोच्छ्वास होते हैं तथा तेजोवर्गणारूप स्कन्धके द्वारा तैजस शरीर बनता है।

Trans. 607. By assimilative molecules (Āhāra Vargaṇā), the three (physical, fluid and assimilative or Āhāraka) bodies are (made), and also inhalation (and exhalation are caused). And by the molecules of electric matter, the electric body (is formed).

भासमणवग्गणादो कमेण भासा मणं च कम्मादो ।

अट्ठविहकम्मदव्वं होदि ति जिणेहिं णिदिट्ठं ॥६०८॥

अर्थ- भाषावर्गणाके द्वारा चार प्रकारका वचन, मनोवर्गणाके द्वारा हृदयस्थानमें अष्ट दल कमलके आकार द्रव्यमन तथा कर्मण वर्गणाके द्वारा आठ प्रकारके कर्म बनते हैं ऐसा जिनेन्द्रदेवने कहा है।

Trans. 608. By the speech and mind molecules respectively (are formed) speech and mind. And of karmic (molecules) eight kinds of Karmic matter are made. It has been said by the Conquerors.

णिद्धत्तं लुक्खत्तं बंधस्स य कारणं तु एयादी ।

संखेज्जासंखेज्जाणंतविहा णिद्धणुक्ख गुणा ॥६०९॥

अर्थ- बन्धका कारण स्निग्धत्व और रुक्षत्व है। इस स्निग्धत्व या रुक्षत्व गुणके एकसे लेकर संख्यात असंख्यात अनन्त भेद हैं।

Trans. 609. Smoothness and roughness (are) the causes of union (of atoms into molecules). The degrees (Guṇa or (Avibhāga Praticcheda) of smoothness and roughness (in matter are) of many kinds, from one to numerable, innumerable and infinite.

एगगुणं तु जहण्णं णिद्धत्तं विगुण तिगुणसंखेज्जा ।

संखेज्जाणंतगुणं होदि तहा रुक्खभावं च ॥६१०॥

अर्थ- स्निग्धत्वका जो एक निरंश अंश है उसको ही जघन्य कहते हैं। इसके आगे स्निग्धत्वके दो तीन आदि संख्यात, असंख्यात, अनन्त अंशरूप भेद होते हैं। इसी तरह रुक्षत्वके भी एक अंशको जघन्य कहते हैं और इसके आगे भी दो तीन आदि संख्यात, असंख्यात, अनन्त अंशरूप भेद होते हैं।

Trans. 610. The minimum of smoothness (is) one degree (Guṇa Avibhāga Praticcheda) and (for the rest, we have) 2 degrees, 3 degrees numerable, innumerable and infinite degrees. Same of the quality of roughness.

एवं गुणसंयुक्ता परमाणु आदिवर्गगणम्भित्या ।
जोग्गदुगाणं बंधे दोण्हं बंधो हवे णियमा ॥६११॥

अर्थ- इस प्रकार के स्निग्ध या रुक्ष गुणसे युक्त परमाणु अणुवर्गणामें ही है। इसके आगे दो आदि परमाणुओंका बन्ध होता है परन्तु यह दोका बन्ध भी तभी होता है जब कि दोनों नियमसे बन्धके योग्य हों।

Trans. 611. Thus atoms having (different) degrees (of smoothness and roughness) are found (only) in the first, Atom-molecules (Aṇu-Vargaṇā). By the union of two suitable (atoms), necessarily the fusion of two atoms (into one molecule) takes place.

णिद्धिणिद्धा ण वज्झंति रुक्खरुक्खा य पोग्गला ।
णिद्धिलुक्खा य वज्झंति रुवारुवी य पोग्गला ॥६१२॥

अर्थ- स्निग्ध-स्निग्ध पुद्गलका और रुक्ष-रुक्ष पुद्गलका परस्परमें बन्ध नहीं होता किन्तु स्निग्ध-रुक्ष और रूपी-अरूपी पुद्गलोंका परस्परमें बन्ध होता है।

Trans. 612. Smooth with smooth and rough with rough do not unite (always). The smooth and rough atoms unite (i.e., where there is the difference of 2 degrees in the smooth and rough uniting atoms). The atoms are similar in degree (Rūpī) and dissimilar (Arūpī).

णिद्धिदरोलीमज्झे विसरिसजादिस्स समगुणं एक्कं ।
रुवि त्ति होदि सण्णा सेसाणं ता अरुवि त्ति ॥६१३॥

अर्थ- स्निग्ध और रुक्षकी श्रेणियोंमें जो विसदृश जातिका एक समगुण है उसकी रूपी संज्ञा है और समगुणको छोड़कर अवशिष्ट सबकी अरूपी संज्ञा है।

Trans. 613. Among the series of smooth and rough (atoms), an atom with equal degrees of smoothness and roughness is named Rūpī, and the rest are Arūpī.

दोगुणणिद्धाणुस्स य दोगुणलुक्खाणुगं हवे रुवी ।
इगितिगुणादि अरुवी रुक्खस्स वि तेव इदि जाणे ॥६१४॥

अर्थ- स्निग्धके दो गुणोंसे युक्त परमाणुकी अपेक्षा रुक्षका दो गुण युक्त परमाणु रूपी है शेष एक तीन चार आदि गुणोंके धारक परमाणु अरूपी हैं। इसी तरह रुक्षका भी समझना चाहिए।

Trans. 614. From the point of view of atom with two degrees of smoothness, an atom with two degrees of roughness is (similar) Rūpī; and (an atom with) one, three and other degrees, (dissimilar) Arūpī. Know the same of rough also.

णिद्धस्स णिद्धेण दुराहिणे लुक्खस्स लुक्खेण दुराहिणे ।
णिद्धस्सलुक्खेण हवेज्ज बंधो जहण्णवज्जे विसमे समे वा ॥६१५॥

अर्थ- एक स्निग्ध परमाणुका दूसरे दो गुण अधिक स्निग्ध परमाणुके साथ बन्ध होता है। एक रुक्ष परमाणुका दूसरे दो गुण अधिक रुक्ष परमाणुके साथ बन्ध होता है। एक स्निग्ध परमाणुका दूसरे दो गुण अधिक रुक्ष परमाणुके साथ भी बन्ध होता है। सम-विषम दानोंका बन्ध होता है किन्तु जघन्य गुण वालेका बन्ध नहीं होता।

Trans. 615. A smooth (atom) unites with a smooth (one) with 2 more (degrees of smoothness); rough, with rough having 2 more (degrees of roughness): Smooth (atom unites) with rough (atom), (and rough with smooth with 2 more degrees); (an atom) with minimum (viz. one degree) being excepted. (The union is between degrees) in an odd or even (series, as 3, 5, 7, 9, 11 etc. and 2, 4, 6, 8, 10 etc.).

णिद्धिदरे समविसमा दोत्तिग आदी दुउत्तरा होंति ।

उभयेवि य समविसमा सरिसिदरा होंति पत्तेयं ॥६१६॥

अर्थ- स्निग्ध या रुक्ष दोनोंमें ही दो गुणके ऊपर जहाँ दो-दोकी वृद्धि हो वहाँ समधारा होती है और जहाँ तीन गुणके ऊपर दो-दोकी वृद्धि हो उसको विषमधारा कहते हैं। सो स्निग्ध और रुक्ष दोनोंमें ही दोनों ही धारा होती हैं तथा प्रत्येक धारामें रूपी और अरूपी होते हैं।

Trans. 616. In the smooth and the other (i.e. rough degrees both) even (sama) and odd (viṣama) (series) two, three, etc., increase by two (each). And in each of the two (smooth and rough) even and odd (series), there are similar (Rūpī) and the other (dissimilar Arūpī).

दोत्तिगपभवदुउत्तरगदेसु णंतरदुगाण बंधो दु ।

णिद्धेलुक्खे वि तहा वि जहण्णुभये वि सव्वत्थ ॥६१७॥

अर्थ- स्निग्ध या रुक्ष गुणमें समधारामें अंशोंके आगे दो-दो अंशोंकी वृद्धि होती है और विषमधारामें तीनके आगे दो-दोकी वृद्धि होती है। सो इन दोनोंमें ही अन्तरद्विकका बन्ध होता है। जैसे दो गुण वाले स्निग्ध या रुक्षका चार गुण वाले स्निग्ध या रुक्षके साथ तथा तीन गुण वाले स्निग्ध या रुक्षका पाँच गुण वाले स्निग्ध या रुक्षके साथ बन्ध होता है। इस तरह आगे भी समझना चाहिए किन्तु जघन्यका बन्ध नहीं होता। दूसरी सब जगह स्निग्ध और रुक्षमें बन्ध होता है।

Trans. 617. Proceeding beyond (atoms of) 2, 3 and more (degrees), union would occur (in case of) difference of 2 degrees, between (them) whether; they be smooth or rough, or both (smooth and rough). Still an (atom of) minimum (degrees does not unite) anywhere.

णिद्धिदरवरगुणाणू सपरट्ठाणे वि नेदि बंधट्ठं ।

बहिरंतरंगहेदुहि गुणंतरं संगदे एदि ॥६१८॥

अर्थ- स्निग्ध या रुक्षका जघन्य गुण वाला परमाणु स्वस्थान या परस्थान कहीं भी बन्धको प्राप्त नहीं होता किन्तु बाह्य और अन्तरंग कारणके निमित्तसे किसी दूसरे गुण-अंश वाला होनेपर बन्धको प्राप्त होता है।

Trans. 618. An atom with minimum degree of smoothness or other (i.e. roughness) is never fit for union in its own place or in the other. It unites (if there is a proper) change in its degree (of smoothness or roughness) owing to external and internal causes.

णिद्धिदरगुणा अहिया हीणं परिणामयंति बंधम्मि ।

संखेज्जासंखेज्जाणंत पदेसाण खंधाणं ॥६१९॥

अर्थ- संख्यात, असंख्यात अनन्त प्रदेशवाले स्कन्धोंमें स्निग्ध या रुक्षके अधिक गुणवाले परमाणु या स्कन्ध अपनेसे हीन गुणवाले परमाणु या स्कन्धोंको अपने रूप परिणामाते हैं जैसे एक हजार स्निग्ध या रुक्ष गुणके अंशोंसे युक्त परमाणु या स्कन्धको एक हजार दो अंश वाला स्निग्ध या रुक्ष परमाणु या स्कन्ध अपने स्वरूप परिणामा लेता है। इसी तरह अन्यत्र भी सर्वत्र समझना चाहिए।

Trans. 619. In molecules of numerable, innumerable, and infinite atoms, (the atoms) with greater degrees of smoothness or other (i.e. roughness) when uniting, alter (atoms of) lesser (degree) to their own kind).

दव्वं छक्कमकालं पंचत्थी कायसण्णिदं होदि ।

काले पदेसपचयो जम्हा णत्थि ति णिदिट्ठं ॥६२०॥

अर्थ- कालमें प्रदेशप्रचय नहीं है इसलिये कालको छोड़कर शेष द्रव्योंको ही पंचास्तिकाय कहते हैं।

Trans. 620. The six substances excepting time are named 5 embodied substances (Pañca-Astikāya), because in time (there is no grouping of units (Pradeśa). It has been said.

नव य पदत्था जीवाजीवा ताणं च पुण्णपावदुगं ।

आसवसंवरणिज्जरबंधा मोक्खो य होति ति ॥६२१॥

अर्थ- मूलमें जीव और अजीव ये दो पदार्थ हैं। दोनों हीके पुण्य और पाप ये दो-दो भेद हैं। इसलिये चार पदार्थ हुए। तथा जीव और अजीव के ही आस्रव, संवर, निर्जरा, बन्ध और मोक्ष ये पाँच भेद भी होते हैं इसलिये सब मिलाकर नव पदार्थ हो जाते हैं।

Trans. 621. The nine categories (Padārtha) are souls (Jīva), non-souls (Ajīva), and by their (union) the two merit (Puṇya), (and) demerit (Pāpa), and inflow (Āsrava), stoppage (Saṁvara), shedding (Nirjarā), bondage (Bandha) and liberation (Mokṣa).

जीवदुगं उत्तद्वं जीवा पुण्णा हु सम्मगुणसहिदा ।

वदसहिदा वि य पावा तव्विवरीया हवन्ति ति ॥६२२॥

अर्थ- जीव और अजीवका अर्थ पहले बता चुके हैं। जीवके दो भेद हैं एक पुण्य और दूसरा पाप। जो सम्यक्त्व गुणसे या व्रतसे युक्त हैं उनको पुण्य जीव कहते हैं और इससे जो विपरीत हैं उनको पाप जीव कहते हैं।

Trans. 622. The two, soul (and non-soul) have been explained (before). The meritorious souls (Puṇya Jīva are) with the attribute of right belief, and also with vows. And the demeritorious (Pāpa Jīva) are the reverse of them.

मिच्छाइट्ठी पावा णंताणंदा य सासणगुणा वि ।

पल्लासंखेज्जदिमा अणअण्णदरुदयमिच्छगुणा ॥६२३॥

अर्थ- मिथ्यादृष्टि पाप जीव हैं, वे अनन्तानन्त हैं क्योंकि द्वितीयादि तेरह गुणस्थानवाले जीवोंका प्रमाण घटानेसे अवशिष्ट समस्त संसारी जीवराशि मिथ्यादृष्टि ही है और सासादनगुणस्थान वाले जीव पत्यके असंख्यातवें भाग हैं और ये भी पाप जीव ही हैं क्योंकि अनन्तानुबंधी प्राप्त हैं ऐसा समझना चाहिए।

Trans. 623. Wrong-believers (are) demeritorious, (and amount to) infinite \times infinite, and also those (who are) in the downfall stage (Sāsādana Guṇa Sthāna) by the operation of any one of (the four) error-feeding (passions going down to) the stage of wrong-belief, and (they are in number) an innumerable part of a Palya.

मिच्छासावय सासण मिस्सा विरदा दुवारणंता य ।

पल्लासंखेज्जदिममसंखगुणं संखसंखगुणं ॥६२४॥

अर्थ- मिथ्यादृष्टि अनन्तानन्त हैं। श्रावक पत्यके असंख्यातवें भाग हैं। सासादन गुणस्थान वाले श्रावकोंसे असंख्यात गुणे हैं। अविरत सम्यक्दृष्टि मिश्र जीवोंसे असंख्यातगुणे हैं। इनमें अन्तके चार स्थानोंमें कुछ कुछ अधिक समझना चाहिए।

Trans. 624. Wrong-believers (are infinite into infinite. Laymen (Śrāvaka in the Partial-vow-stage), (souls) in down fall (Sāsādana), in mixed (Miśra), and in vowless (Avirata, i.e., the 4th stage number respectively) an innumerable part of a Palya, an innumerable times (the innumerable part fo a Palya), numerable times (of this last product), and innumerable times (this last number).

तिरधियसयणवणउदी छण्णउदी अपमत्त वे कोडी ।

पंचेव य तेणउदी णवट्ठविसयच्छ उत्तरं पमदे ॥६२५॥

अर्थ- प्रमत्त गुणस्थानवाले जीवोंका प्रमाण पाँच करोड़, तिरानवे लाख, अट्टानवें हजार, दो सौ छह (५६३६८२०६) है। अप्रमत्त गुणस्थान वाले जीवोंका प्रमाण दो करोड़ छ्यानवे लाख निन्यानवे हजार एक सौ तीन (२६६६६९०३) है।

Trans. 625. (The total of souls) with imperfect vow (Pramatta-Virata is) 5,93,98,206, and with perfect vow (Apramatta is) 2,96,99,103.

तिसयं भणंति केई चउरुत्तरमत्थपंचयं केई ।

उवसामग परिमाणं खवगाणं जाण तहुगुणं ॥६२६॥

अर्थ- उपशमश्रेणी वाले आठवें, नौवें, दसवें, ग्यारहवें गुणस्थान वाले जीवोंका प्रमाण कोई आचार्य तीनसौ कहते हैं कोई तीनसौ चार कहते हैं। कोई दोसौ निन्यानवे कहते हैं। क्षपकश्रेणी वाले आठवें, नौवें, दसवें, बारहवें गुणस्थान वाले जीवोंका प्रमाण उपशम श्रेणी वालोंसे दूना है।

Trans. 626. Some say the number (of souls in each of the 8th, 9th, 10th, and 11th stages of) subsidential ladder (Upāsama Śreṇī) to be 300; some 304; and some less than this by 5 i.e., 299) (but) know (these numbers to be) double (for souls) in (each of the 8th, 9th, 10th, and 12th stages of) destructive ladder. (kṣapaka śreṇī).

सोलसयं चउवीसं तीसं छत्तीस तह य बादालं ।

अडदालं चउवण्णं चउवण्णं होंति उवसमगे ॥६२७॥

अर्थ- निरन्तर आठ समय पर्यन्त उपशमश्रेणी माँडनेवाले जीवोंमें अधिकसे अधिक प्रथम समयमें १६, द्वितीय समयमें २४, तृतीय समय में ३०, चतुर्थ समयमें ३६, पाँचवें समयमें ४२, छठे समय में ४८ सातवें समय में ५४ और आठवें समय में ५४ जीव होते हैं।

Trans. 627. (The maximum number of souls who can go up) to the subsidential ladder (Upāsama Śreṇī in consecutive 8 instants) is respectively, 16, 24, 30, 36, 42, 48, 45, and 54.

वत्तीसं अडदालं सट्ठी ववात्तरी य चुलसीदी ।

छण्णउदी अट्ठुत्तर सयमट्ठुत्तरसयं च खवगेसु ॥६२८॥

अर्थ- अन्तराय रहित निरन्तर आठ समय पर्यन्त क्षपक श्रेणी माँडने वाले जीव अधिकसे अधिक पूर्वोक्त आठ समयोंमें होने वाले उपशमश्रेणी वालोंसे दूने होते हैं। इनमेंसे प्रथम समयमें ३२, दूसरे समयमें ४८, तीसरे समयमें ६०, चतुर्थ समयमें ७२, पाँचवें समयमें ८४, छठे समयमें ९६ सातवें समयमें १०८ और आठवें समयमें १०८ होते हैं।

Trans. 628. (The maximum number of souls who go up) to the Destructive ladder (Kṣapaka Śreṇī in 8 consecutive instants is respectively) 32, 8, 60, 72, 84, 96, 108, and 108.

अट्ठेव सयसहस्सा अट्ठाणउदी तहा सहस्साणं ।

संखा जोगिजिणाणं पंचसय विउत्तरं वंदे ॥६२९॥

अर्थ- सयोग केवली जिनोंकी संख्या आठ लाख, अट्ठानवे हजार पाँच सौ दो है। इनकी मैं सदा काल वन्दना करता हूँ।

Trans. 629. The number of vibratory omniscients (Sayogī Jina) is eight hundred-thousand, 98 thousand, 5 hundred and two (898, 502). I bow to them.

होंति खवा इगिसमये बोहियबुद्धा य पुरिसवेदा य ।

उक्कस्सेणट्ठुत्तरसयप्पमा सग्गदो य चुदा ॥६३०॥

पत्तेयबुद्धतित्थयरत्थिणउंसय मणोहिणाण जुदा ।

दसछक्कवीसदसवीसट्ठावीसं जहाकमसो ॥६३१॥

जेट्ठावरबहुमज्झिम ओगाहणगा दु चारि अट्ठेव ।

जुगवं हवंति खवगा उवसमगा अद्धमेदेसिं ॥६३२॥

अर्थ- युगपत् एक समयमें क्षपक श्रेणीवाले जीव अधिकसे अधिक होते हैं तो कितने होते हैं।

उत्तर- इसका प्रमाण इस प्रकार है कि बोधितबुद्ध एकसौ आठ, पुरुषवेदी एकसौ आठ, स्वर्गसे च्युत होकर मनुष्य होकर क्षपक श्रेणी माँडनेवाले एकसौ आठ, प्रत्येक बुद्धि ऋद्धिके धारक दस, तीर्थंकर छह, स्त्रीवेदी बीस, नपुंसक वेदी दस, मनःपर्ययज्ञानी बीस, अवधिज्ञानी अट्ठाईस, मुक्त होने योग्य शरीरकी उत्कृष्ट अवगाहनाके धारक दो, जघन्य अवगाहनाके धारक चार, समस्त अवगाहनाओंकी मध्यवर्ती अवगाहनाके धारक आठ। ये सब मिलकर चारसौ बत्तीस होते हैं। उपशमश्रेणी वाले इसके आधे (२१६) होते हैं।

Trans. 630-31-32. Of the maximum (number) of souls on the destructive ladder in one instant, the precept-enlightened (Bodhita Buddha); with masculine inclination (Puruṣa Vedī); and descended from the heavens (to human condition, Svarga cyuta); self-enlightened (Pratyeka buddha); Tīrthankara; those with feminine (inclination, Strī Vedī), those with common (masculine-feminine-inclination Napuṃsaka vedī); with mental knowledge; and with Visual knowledge (are) respectively 108, 108, 108, 10, 6, 20, 10, 20, and 28. And on the destructive ladder, souls with the maximum, minimum and the exactly middle sizes are in one instant (Yugapat) two, four and eight respectively. Those on the subsidential ladder are half of the above (as enumerated in Gāthā 630-632).

सत्तादि अट्ठंता छण्णवमज्झा य संजदा सव्वे ।

अंजलिमोलियहत्थो तियरणसुद्धे णमंसामि ॥६३३॥

अर्थ- सात आदिमें, आठ अन्तमें और दोनों अंकोंके मध्यमें छह जगह नौका अंक 'अंकानां वामतो गतिः' के नियमानुसार रखनेपर सम्पूर्ण संयमियोंका प्रमाण होता है। अर्थात् छठे गुणस्थानसे लेकर चौदहवें गुणस्थान तकके सर्व संयमियोंका प्रमाण तीन कम नौ करोड़ (८६६६६६६७) है। इनको मैं हाथ जोड़कर सिर नवाकर मन वचन कायकी सिद्धिपूर्वक नमस्कार करता हूँ।

Trans. 633. All (souls) with control (i.e., Saṃyata, from the 6th to the 14th spiritual stages, are represented in number by a figure with) seven in the beginning, eight in the end, and 6 nines in the middle, (8,99,99,997); I bow (to them) with folded-hands, raised to my bowed forehead, with the three-fold purity (of mind, speech and body).

ओघासंजदमिस्सयसासणसम्माण भागहारा जे ।

रूऊणवलियासंखेज्जेणिह भजिय तत्थ णिक्खित्ते ॥६३४॥

देवाणं अवहारा होंति असंखेण ताणि अवहरिय ।

तत्थेव य पक्खित्ते सोहम्मीसाण अवहारा ॥६३५॥

अर्थ- गुणस्थान संख्यामें असंयत, मिश्र, सासादनके भागहारोंका जो प्रमाण बताया है उसमें एक कम आवलीके असंख्यातवें भागका भाग देनेसे जो लब्ध आवे उसको भागहारके प्रमाणमें मिलानेसे देवगति सम्बन्धी भागहारका प्रमाण होता है तथा देवगति सम्बन्धी भागहारके प्रमाणमें एक कम आवलीके असंख्यातवें भागका भाग देनेसे जो लब्ध आवे उसको देवगति सम्बन्धी भागहारके प्रमाणमें मिलानेसे सौधर्म ईशान स्वर्ग सम्बन्धी भागहारका प्रमाण होता है।

Trans. 634-35. The divisors (of Palya) for the vowless (Asaṃyata), mixed (Miśra) and downfall (Sāsādana) stages, (referred to in Gāthās 623-624) being divided by the innumerable part of an Āvali minus one; (and the quotient) being added to the said divisors, become respectively the divisors (of Palya, for calculating the numbers of celestial beings (in vowless, mixed and downfall stages). And the divisors (for celestial beings) being divided by an innumerable part (of an Āvali, minus one) and (the result) being added to the said divisors (we have) the divisors for the heavenly beings of Saudharma and Īśāna (in the three stages of vowless, mixed, and downfall).

सोहम्मीसाणहारमसंखेण य संखरूवसंगुणिदे ।

उवरि असंजद मिस्सय सासणसम्माण अवहारा ॥६३६॥

अर्थ- सौधर्म-ईशान स्वर्गके सासादन गुणस्थानमें जो भागहारका प्रमाण है उससे असंख्यात गुणा सानत्कुमार, माहेन्द्र स्वर्गके असंयतगुणस्थानके भागहारका प्रमाण है। इससे असंख्यातगुणा मिश्र गुणस्थानके भागहारका प्रमाण है तथा मिश्र गुणस्थानके भागहारसे संख्यातगुणा सासादन गुणस्थानके भागहारका प्रमाण है।

Trans. 636. (The divisor of) Saudharma and Īsāna (in the downfall stage) multiplied by innumerable, once, twice, and then by numerable, gives respectively the divisors (of a Palya) for the vowless (Asañyata), mixed (Mīśra) and downfall (Sāsādāna) stages (of celestial beings) above (those) (i.e., Sānatkumāra and Māhendra which are situated next above Saudharma and Īsāna).

सोहम्मादासारं जोइसिवणभवण तिरिय पुढ्वीसु ।

अविरदमिस्सेऽसंखं संखासंखगुणं सासणे देसे ॥६३७॥

अर्थ- सौधर्म स्वर्गसे लेकर सहस्रार स्वर्गपर्यन्त पाँच युगल, ज्योतिषी, व्यंतर, भवनवासी, तिर्यच तथा सातों नरक पृथ्वी इस तरह ये कुल १६ स्थान हैं। इनके अविरत और मिश्र गुणस्थानमें असंख्यातका गुणक्रम है, सासादन गुणस्थानमें संख्यातका तथा तिर्यगगति सम्बन्धी देशसंयम गुणस्थानमें असंख्यातका गुणक्रम समझना चाहिए।

Trans. 637. The divisors of a Palya for getting the number of souls (in the last 5 pairs of heavens) from above Saudharma (i.e., from Sānat Kumāra to Sahasrāra, of the stellars, peripatetics, residentials, sub-humans, and in (each of the) 7 hells, for the vowless, mixed and downfall stages are innumerable, innumerable, and numerable times the divisors of their immediate predecessors. (There is) partial vow stage (also in sub-humans, and the divisor of the Palya for their number is innumerable times the divisor for the downfall stage of the sub-humans, and the divisor for the vowless beings for the first hell is the same as that for the sub-humans with partial-vow).

चरमधरासाणहरा आणदसम्माणआरणप्पहुदिं ।

अंतिमगेवेज्जंतं सम्माणमसंखसंख गुणहारा ॥६३८॥

अर्थ- सप्तम पृथिवीके सासादन सम्बन्धी भागहारसे आनत-प्राणतके असंयतका भागहार असंख्यात गुणा है तथा इसके आगे आरण अच्युतसे लेकर नौवें त्रैवेयक दस स्थानोंमें असंयतका भागहार क्रमसे संख्यात-संख्यात गुणा है।

Trans. 638. The divisor (of Palya for the number of souls in Ānata, (Prāṇata) in the vowless stage is innumerable times the divisor for souls in the last hell in the downfall stage. And from Āraṇa, (Acyuta) up to the last Graiveyaka (i.e., 10 places) the divisor for the vowless is numerable times of its immediate predecessor.

तत्तोताणुत्ताणं वामाणमणुद्धिस्साण विजयादि ।

सम्माणं संखगुणो आणदमिस्से असंखगुणो ॥६३९॥

अर्थ- इसके अनन्तर आनत-प्राणतसे लेकर नवम त्रैवेयक पर्यन्तके मिथ्यादृष्टि जीवोंका भागहार क्रमसे अन्तिम त्रैवेयक सम्बन्धी असंयतके भागहारसे संख्यातगुणा-संख्यातगुणा है। इस अन्तिम त्रैवेयक सम्बन्धी मिथ्यादृष्टिके भागहारसे क्रमपूर्वक संख्यातगुणा-संख्यातगुणा नव अनुदिश और विजय, वैजयन्त, जग्रंत तथा अपराजितके असंयतोंका भागहार है। विजयादिक सम्बन्धी असंयतके भागहारसे आनत-प्राणत सम्बन्धी मिश्रका भागहार असंख्यातगुणा है।

Trans. 639. And the divisor for souls in wrong-belief-stage in the (10 places) mentioned above is numerable times (of that for its immediate predecessor); (and we begin with Ānat, Prānat in which it is numerable times that for the vowless souls in the last Graiveyaka). And the divisor for the vowless in (9) Anudiśas and (4 Anuttaras), Vijaya, etc., is numerable times (of its immediate predecessor and we begin with the Anudiśas in which the divisor is numerable times that for the wrong believers in the last Graiveyaka).

(The divisor for) the mixed-stage in Ānata, (Prānata) is innumerable times (that for the vowless in the 4 Anuttaras). (The 9 Anudiśas are considered as one class here, and so are the 4 Anuttaras).

तत्तो संखेज्जगुणो सासणसम्माण होदि संखगुणो ।

उत्तद्वाणे कमसो पणछस्सत्तद्वचदुरसंदिट्ठी ॥६४०॥

अर्थ- आनत-प्राणत सम्बन्धी मिश्रके भागहारसे आरण अच्युतसे लेकर नवम त्रैवेयक पर्यन्त दस स्थानोंमें मिश्रसम्बन्धी भागहारका प्रमाण क्रमसे संख्यातगुणा-संख्यातगुणा है। यहाँपर संख्यातकी सहनानी आठका अंक है। अन्तिम त्रैवेयक सम्बन्धी मिश्रके भागहारसे आनत-प्राणतसे लेकर नवम त्रैवेयक पर्यन्त ग्यारह स्थानोंमें सासादन सम्यक्दृष्टिके भागहारका प्रमाण क्रमसे संख्यातगुणा-संख्यातगुणा है। यहाँपर संख्यातकी सहनानी चारका अंक है। इन पूर्वोक्त पाँच स्थानोंमें संख्यातकी सहनानी क्रमसे पाँच, छह, सात, आठ और चारके अंक हैं।

Trans. 640. Then (the divisor for the mixed stage in 10 places from Āraṇa, Acyuta to the last Graiveyaka is) numerable times (of that for its immediate predecessor). And for the downfall right-belief it is numerable times. (The divisor for the downfall stage, in 11 places from Ānata, Prānat to 9 Graiveyakas is numerable times of that for its immediate predecessor. We begin with Ānat, Prānat, where the divisor is numerable times that for the mixed souls in the last (Graiveyaka). In the above (5) places the index of numerable is successively 5, 6, 7, 8 and 4.

सगसगअवहारेहिं पल्ले भजिदे हवन्ति सगरासी ।

सगसगगुणपणिवण्णे सगसगरासीसु अवणिदे वामा ॥६४१॥

तेरसकोडी देसे बावण्णं सासणे मुणेदव्वा ।

मिस्सा वि य तद्गुणा असंजदा सत्तकोडिसयं ॥६४२॥

अर्थ- अपने-अपने भागहारका पत्यमें भाग देनेसे अपनी-अपनी राशिके जीवोंका प्रमाण निकलता है तथा अपनी-अपनी सामान्य राशियोंसे असंयत, मिश्र, सासादन तथा देशव्रतका प्रमाण घटानेसे अवशिष्ट मिथ्यादृष्टि जीवोंका प्रमाण रहता है। देशसंयम गुणस्थानमें तेरह करोड़, सासादनमें बावन करोड़, मिश्रमें १०४ करोड़ असंयतमें सात करोड़ मनुष्य हैं। प्रमत्तादि गुणस्थान वाले जीवोंका प्रमाण पूर्वमें ही बता चुके हैं। इस प्रकार यह गुणस्थानोंमें मनुष्य जीवोंका प्रमाण है।

Trans. 641-42. A Palya being divided by the divisor of each, gives the total number of each. And wrong-believers in each are equal to its total minus the souls in all other stages in it.

(The number of humans) in the partial-vow stage should be known to be thirteen crores; in the downfall stage, 52 (crores); in the mixed, double of that (i.e., 104 crores), and in the vowless, (right-belief) 700 crores.

जीविदरे कम्मचये पुण्णं पावो त्ति होहि पुण्णं तु ।

सुहपयडीणं दव्वं पावं असुहाण दव्वं तु ॥६४३॥

अर्थ- जीव पदार्थमें सामान्यसे मिथ्यादृष्टि और सासादन गुणस्थानवाले जीव पाप हैं और मिश्र गुणस्थान वाले जीव पुण्य और पापके मिश्र रूप हैं तथा असंयतसे लेकर सभी पुण्य जीव हैं। इसके अनन्तर अजीव पदार्थका वर्णन करते हैं। अजीव पदार्थमें कर्मण स्कन्धके दो भेद हैं। एक पुण्य दूसरा पाप। शुभ प्रकृतियोंके द्रव्यको पुण्य और अशुभ प्रकृतियोंके द्रव्यको पाप कहते हैं।

Trans. 643. Merit (Punya) and demerit (Pāpa) are Karmic molecules (included) in non-soul (category). Merit is Karmic mater of good nature (Śubha prakṛti) and demerit (is) Karmic matter of bad nature (Aśubha-prakṛti).

आसवसंवरद्वं समयप्रबद्धं तु णिज्जराद्वं ।

तत्तो असंखगुणिदं उक्कस्सं होदि णियमेण ॥६४४॥

अर्थ- आसव और संवरका द्रव्यप्रमाण समयप्रबद्ध प्रमाण है और उत्कृष्ट निर्जरा द्रव्य समयप्रबद्धसे असंख्यात गुणा है।

Trans. 644. The matter of inflow (Āsrava) and stoppage (Saṁvara) (is) one unit of bondage (Samaya-Prabaddha). And the maximum matter of shedding (Nirjarā) is necessarily innumerable times of it (i.e., of a unit of bondage).

बंधो समयप्रबद्धो किंचूणदिवद्दमेत्तगुणहाणी ।

मोक्खो य होदि एवं सदह्दिद्वा दु तच्चद्वा ॥६४५॥

अर्थ- बन्ध द्रव्य समयप्रबद्ध प्रमाण है क्योंकि एक समयमें समयप्रबद्ध प्रमाण ही कर्म प्रकृतियोंका बन्ध होता है तथा मोक्ष द्रव्यका प्रमाण द्व्यर्धगुणहानि गुणित समयप्रबद्ध प्रमाण है क्योंकि अयोगी गुणस्थानके अन्तमें जितनी कर्मप्रकृतियोंकी सत्ता रहती है उतना ही मोक्ष द्रव्यका प्रमाण है तथा यहाँपर (अयोगीगुणस्थानके अन्त समयमें) कर्मोंकी सत्ता द्व्यर्धगुणहानिगुणित समयप्रबद्ध प्रमाण है इसलिये मोक्षद्रव्यका प्रमाण भी द्व्यर्ध गुणहानि गुणित समयप्रबद्ध प्रमाण ही है। इस प्रकार इन सात तत्वोंका श्रद्धान करना चाहिए।

Trans. 645. (The matter of) bondage is one unit of bondage (Samaya-prabaddha) and (the matter of the final shedding at the end of the 14th stage just before attaining) liberation (Mokṣa) is a little less than (one unit of bondage multiplied by) one and a half Guṇhāni-Thus things ascertained as they are (Tattvārtha) should be believed.

खीणे दंसणमोहे जं सदहणं सुणिम्मलं होई ।

तं खाइय सम्मत्तं णिच्चं कम्मक्खवणहेदू ॥६४६॥

अर्थ- दर्शनमोहनीय कर्मके क्षीण हो जाने पर जो निर्मल श्रद्धान होता है उसको क्षायिक सम्यक्त्व कहते हैं। यह सम्यक्त्व नित्य है और कर्मोंके क्षय होनेका कारण है।

Trans. 646. The belief which is caused by the destruction of right belief-deluding Karma (Darśana Moha and 4 error-feeing-passions sub-classes of right-conduct-deluding-Karma) is perfectly pure. It (is) destructive right-belief (Kṣāyika Samyaktva so called as it destroys the causes or wrong belief entirely). (It is) eternal and (is) the cause of destruction of Karmas.

वयणेहिं वि हेदूहिं वि इंदियभयआणएहिं सुवेहिं ।

वीभच्छजुगुच्छाहिं य तेलोक्केण वि ण चालेज्जो ॥६४७॥

अर्थ- श्रद्धानको भ्रष्ट करने वाले वचन या हेतुओंसे अथवा इन्द्रियोंको भय उत्पन्न करने वाले आकारोंसे यद्वा ग्लानिकारक पदार्थोंको देखकर उत्पन्न होने वाली ग्लानिसे किंबहुना तीन लोकसे भी यह क्षायिक सम्यक्त्व चलायमान नहीं होता।

Trans. 647. (Destructive right belief) is never shaken by words, by arguments, by forms fearful to the senses, or by terror and disgust or by (all things in the) three worlds.

दंसणमोहक्खवणा पडुवगो कम्मभूमिजादो हु ।

मणुसो केवलिमूले णिडुवगो होदि सव्वत्थ ॥६४८॥

अर्थ- दर्शनमोहनीय कर्मके क्षय होनेका प्रारम्भ केवलीके मूलमें कर्मभूमिका उत्पन्न होने वाला मनुष्य ही करता है तथा निष्ठापन सर्वत्र होता है।

Trans. 648. The initiator (Prasthāpaka) of the destruction of right-belief-deluding-Karma (Darśana Moha, and of the 4 error-feeding-passion is) certainly a man born in the work-region (karma bhūmi). (who begins it) at the feet of an omniscient (or of a saint with full scriptural knowledge), and (he would be its) accomplisher (Niṣṭhāpaka) in all (conditions of existence).

दंसणमोहुदयादो उपज्जइ जं पयत्थसद्दहणं ।
चलमलिनमगाढं तं वेदयसम्मत्तमिदि जाणे ॥६४६॥

अर्थ- सम्यक्त्वमोहनीय प्रकृतिके उदयसे पदार्थोंका जो चल, मलिन, अगाढ़रूप श्रद्धान उत्पन्न होता है उसको वेदक सम्यक्त्व कहते हैं।

Trans. 649. Belief in the (9) categories, which is produced by the operation of (the clouded-right-belief sub-class of) the right-belief-deluding-karma is destructive-subsidential right-belief (Vedaka or Kṣāyopāśamika Samyaktva). Know it to be wavering (Cala), impure (Malina) and non-steadfast (Agāḍha). (Compare Gāthās 25 and 26).

दंसणमोहुवसमदो उपज्जइ जं पयत्थसद्दहणं ।
उवसमसम्मत्तमिणं पसणमलपंकतोयसमं ॥६५०॥

अर्थ- उक्त सम्यक्त्व विरोधिनी पाँच अथवा सात प्रकृतियोंके उपशमसे जो पदार्थोंका श्रद्धान होता है उसको उपशमसम्यक्त्व कहते हैं। यह सम्यक्त्व इस तरहका निर्मल होता है जैसा कि निर्मली आदि पदार्थोंके निमित्तसे कीचड़ आदि मलके नीचे बैठ जाने पर जल निर्मल होता है।

Trans. 650. The belief in the (9) categories produced by the subsidence of right-belief-deluding-Karma (and of the 4 error-feeding-passions) is subsidential-right-belief (Upāśama Samyaktva) (and is) like water with its dirty mudsettled down.

खयउवसमियविसोही देसणपाउग्गकरणलब्धि य ।
चत्तारि य सामण्णा करणं पुण होदि सम्मत्ते ॥६५१॥

अर्थ- क्षायोपशमिक, विशुद्धि, देशना, प्रायोग्य, करण ये पाँच लब्धि हैं। इनमें पहली चार तो सामान्य हैं भव्य-अभव्य दोनोंके ही संभव है किन्तु करण लब्धि विशेष है। यह भव्यके ही हुआ करती है और इसके होने पर सम्यक्त्व या चारित्र नियम से होता है।

Trans. 651. The five attainments (Labdhi), (are) : (1) destructive-subsidential (Kṣāyopāśamika), (2) Virtue (Vishuddhi), (3) precept (Deshanā), (4) completeness (Prāyogya), (5) efficiency (Karaṇa), the first four are common (i.e. attainable by all), but the efficiency Karaṇa is attained only by (soul capable of) right-belief, (and liberation).

चदुगदिभव्वो सण्णी पज्जत्तो सुज्झगो य सागारो ।
जागारो सल्लेसो सलद्धिगो सम्ममुवगमई ॥६५२॥

अर्थ- जो जीव चार गतियोंमेंसे किसी एक गतिका धारक तथा भव्य, संज्ञी, पर्याप्त, विशुद्धि सातादिके बन्ध के योग्य परिणतिसे युक्त, जागृत स्त्यानगृद्धि आदि तीन निद्राओंसे रहित साकार उपयोगयुक्त और शुभ लेश्याका धारक होकर करण लब्धिरूप परिणामोंका धारक होता है वह जीव सम्यक्त्वको प्राप्त करता है।

Trans. 652. (A soul) attains right-belief (if he is) capable of liberation, (Bhavya) in whichever of the 4 conditions of existence (Gati) he may be, (is) rational, developable (Paryāpta), Virtuous, possessed of knowledge attentiveness (i.e. Sākāra), awake, with favourable thought-paint, and with efficiency-attainment (Karaṇa Labdhi).

चत्वारि वि खेत्ताइं आउगबंधेण होदि सम्मत्तं ।

अणुवदमहव्वदाइं ण लहइ देवाउगं मोत्तुं ॥६५३॥

अर्थ- चारों गति सम्बन्धी आयुकर्मका बन्ध हो जानेपर भी सम्यक्त्व हो सकता है किन्तु देवायुको छोड़कर शेष आयुका बन्ध होने पर अणुव्रत और महाव्रत नहीं होते।

Trans. 653. Even after the binding of the age-karma of the four places (i.e., conditions of existence, Gati), right belief is possible, but except in (bondage of) celestial age, (in the bondage of other ages, the soul) does not acquire the minor vows (Aṇuvrata) and great vows (Mahāvratā).

ण य मिच्छत्तं पत्तो सम्मत्तादो य जो य परिवडिदो ।

सो सासणो ति नेयो पंचमभावेण संजुत्तो ॥६५४॥

अर्थ- जो जीव सम्यक्त्वसे तो च्युत हो गया है किन्तु मिथ्यात्वको प्राप्त नहीं हुआ है उसको सासन कहते हैं। यह जीव पाँचवें पारिणामिक भावसे युक्त होता है।

Trans. 654. He who has fallen from right belief, but has not reached wrong belief is in downfall (right-belief Sāsādāna Samyaktva). He should be known to be with the fifth kind of thought activity (i.e., natural Pāriṇāmika, with respect to the right-belief-deluding karma which is neither operative, nor subsided, nor destroyed in this stage).

सद्दहणासद्दहणं जस्स य जीवस्स होइ तच्चेसु ।

विरयाविरयेण समो सम्मामिच्छो ति णायव्वो ॥६५५॥

अर्थ- विरताविरतकी तरह जिस जीवके तत्त्वके विषयमें श्रद्धान और अश्रद्धान दोनों हों उसको सम्यग्मिथ्यादृष्टि समझना चाहिए।

Trans. 655. The soul in whom (there) is belief and non-belief in the (7) principles, like the one with vows and non-vows (i.e., in the 5th stage of partial vows) should be known to be right-wrong believer (Samyak-mithyādrishṭi in the mixed or 3rd stage).

मिच्छादिट्ठी जीवो उवइडं पवयणं ण सद्दहदि ।

सद्दहदि असब्भावं उवइडं वा अणुवइडं ॥६५६॥

अर्थ- जो जीव जिनेन्द्र देवके कहे हुए आप्त, आगम, पदार्थका श्रद्धान नहीं करता किन्तु कुगुरुओंके कहे हुए या विना कहे हुए भी मिथ्या पदार्थका श्रद्धान करता है उसको मिथ्यादृष्टि कहते हैं।

Trans. 656. Wrong believing soul does not believe in the Truth as preached (by the Conqueror) and believes in wrong views (of things) (whether they have seen) preached (to him) or not preached.

वासपुधत्ते खइया संखेज्जा जइ हवंति सोहम्मे ।

तो संखपल्लठिदिये केवडिया एवमणुपादे ॥६५७॥

संखावलिहिदपल्ला खइया तत्तो य वेदमुवसमगा ।

आवलि असंखगुणिदा असंखगुणहीणया कमसो ॥६५८॥

अर्थ- क्षायिक सम्यक्दृष्टि जीव सौधर्म-ईशान स्वर्गमें पृथक्त्व वर्षमें संख्यात उत्पन्न होते हैं तो संख्यात पत्यकी स्थितिमें कितने जीव उत्पन्न होंगे। इसका त्रैराशिक करनेसे क्षायिकसम्यग्दृष्टि जीवोंका प्रमाण निकलता है क्योंकि क्षायिकसम्यग्दृष्टि बहुधा कल्पवासी देव होते हैं और कल्पवासी देव बहुत करके सौधर्म ईशान स्वर्गमें ही हैं। संख्यात आवलीसे भक्त पत्यप्रमाण क्षायिकसम्यग्दृष्टि हैं। क्षायिक सम्यग्दृष्टिके प्रमाणका आवलीके असंख्यातवें भागसे गुणा करनेपर जो प्रमाण हो उतना ही वेदक सम्यक्दृष्टि जीवोंका प्रमाण है तथा क्षायिक सम्यग्दृष्टि जीवोंके प्रमाणसे असंख्यातगुणाहीन उपशम सम्यक्दृष्टि जीवोंका प्रमाण है।

Trans. 657-58. If in the Saudharma (Īśāna) there are numerable destructive-right-believers in 3 to 9 (Prthaktva) years, then how many (will be in a duration of a numerable palya, we shall find this (as follows). A Palya divided by numerable Āvalīs, (is the total of) destructive-right believers. And this total multiplied by innumerable Āvalīs or divided by innumerable (is) respectively (the total of) destructive-subsidential (Vedaka) or subsidential right believers (Upaśāmaka).

पल्लासंखेज्जदिमा सासणमिच्छा य संखगुणिदा हु ।

मिस्सा तेहिं विहीणो संसारी वामपरिमाणं ।।६५६।।

अर्थ- पल्यके असंख्यातवें भागप्रमाण सासादन मिथ्यादृष्टि जीव हैं और इनसे संख्यात गुणे मिश्र जीव हैं। तथा संसारी जीवराशिमेंसे क्षायिक, औपशमिक, क्षायोपशमिक सासादन मिश्र इन पाँच प्रकारके जीवोंका प्रमाण घटानेसे जो शेष रहे उतना ही मिथ्यादृष्टि जीवोंका प्रमाण है।

Trans. 659. The down-fall-wrong-believers are an innumerable part of a Palya. The mixed are numerable times of these. (The total of) mundane souls minus these (i.e., the number of the above 5 kinds of believers is) the number of wrong-believers.

णोइन्दियआवरण खओवसमं तज्जबोहणं सण्णा ।

सा जस्स सो दु सण्णी इदरो सेसिंदि अवबोहो ।।६६०।।

अर्थ- नोइन्द्रियावरण कर्मके क्षयोपशमको या तज्जन्य ज्ञानको संज्ञा कहते हैं। यह संज्ञा जिसके हो उसको संज्ञी कहते हैं और जिनके यह संज्ञा न हो किन्तु केवल यथासम्भव इन्द्रियजन्य ज्ञान हो उनको असंज्ञी कहते हैं।

Trans. 660. The destruction-subsidence (Kṣayopaśama) of the quasi-sense or mind-knowledge-obscuring-Karma (No-Indriyāvaraṇa-Karma), as also the knowledge produced by it is rationality (Sañjñā). He who has got it is certainly rational (Sañjñī). One who has knowledge of the other sensed (only) is the other, i.e., irrational (or Asañjñī).

सिक्खाकिरियुवदेसालावंग्गाही मणोवलंबेण ।

जो जीवो सो सण्णी तव्विवरीओ असण्णी दु ।।६६१।।

अर्थ- हितका ग्रहण और अहितका त्याग जिसके द्वारा किया जा सके उसको शिक्षा कहते हैं। इच्छापूर्वक हाथ पैरके चलानेको क्रिया कहते हैं। वचन अथवा चाबुकके द्वारा बताये हुए कर्तव्यको उपदेश कहते हैं और श्लोक आदिके पाठको आलाप कहते हैं। जो जीव इन शिक्षादिको मनके अवलम्बनसे ग्रहण-धारण करता है उसको संज्ञी कहते हैं और जिन जीवोंमें यह लक्षण घटित न हो उनको असंज्ञी कहते हैं।

Trans. 661. Rational (Sañjñī) is the soul, who is capable of receiving instruction (Śikṣā), of (understanding) gestures (Kriyā), preaching (Upadeśa) and recitation (Ālāpa), by help of mind. And (a soul) opposite to it (is) irrational (Asañjñī).

मीमंसदि जो पुव्वं कज्जमकज्जं च तच्चमिदरं च ।

सिक्खदि णामेणेदि य समणो अमणो य विवरीदो ।।६६२।।

अर्थ- जो जीव प्रवृत्ति करनेके पहले अपने कर्तव्य और अकर्तव्यका विचार करे तथा तत्त्व और अतत्त्वका स्वरूप समझ सके और उसका जो नाम रखा गया हो उस नामके द्वारा बुलाने पर आ सके, उन्मुख हो, अथवा उत्तर दे सके उसको समनस्क या संज्ञी जीव कहते हैं और इससे जो विपरीत है उसको अमनस्क या असंज्ञी कहते हैं।

Trans. 662. (He) who investigates before (doing) what ought to be done and what ought not to be done, and learns (the distinction between) things as they are (tattva) and the other (i.e., as they are not in reality, Atatva,) and comes (on being called) by (his) name is with mind and the opposite (is) without mind.

देवेहिं सादिरेगो रासी सण्णीण होदि परिमाणं ।
तेणूणो संसारी सव्वेसिमसण्णि जीवाणं ॥६६३॥

अर्थ- देवोंके प्रमाणसेकुछ अधिक संज्ञी जीवोंका प्रमाण है। सम्पूर्ण संसारी जीव राशि मेंसे संज्ञी जीवोंका प्रमाण घटाने पर जो शेष रहे उतना ही समस्त असंज्ञी जीवोंका प्रमाण है।

Trans. 663. The total of celestials with the others (i.e., hellish, human and rational sub-humans) is the number of the rationals. Mundane souls minus these (is the number of) all irrational souls.

उदयावण्णसरीरोदयेण तद्देहवयण चित्ताणं ।
णोक्कम्मवग्गणाणं गहणं आहारयं णाम ॥६६४॥

अर्थ- शरीरनामा नामकर्मके उदयसे देह- औदारिक, वैक्रियिक, आहारक इनमेंसे यथासम्भव किसी भी शरीर, वचन और द्रव्य मनरूप बननेके योग्य नोक्कम्मवर्गणाओंका जो ग्रहण होता है उसको अहार कहते हैं।

Trans. 664. The intaking of the quasi-Karmic molecules (No-karma Vargaṇā) for a body, speech or mind under the operation of such body (sub-class of body-making Karma) as happens to be in operation, (Udayā-panna) is called Assimilation (Āhāra).

आहरदि सरीराणं तिण्हं एयदरवग्गणाओ य ।
भासमणाण णियदं तद्धा आहरयो भणियो ॥६६५॥

अर्थ- औदारिक, वैक्रियिक, आहारक इन तीन शरीरोंमेंसे किसीभी एक शरीरके योग्य वर्गणाओंको तथा वचन और मनके योग्य वर्गणाओंको यथायोग्य जीवसमास तथा कालमें जीव आहरण- ग्रहण करता है इसलिए इसको आहारक कहते हैं।

Trans. 665. The soul constantly assimilates the molecules of one of the three (physical, fluid or Āhāraka) bodies, and of speech and mind. Therefore (the soul) is called assimilative (Āhāraka).

विग्गहगदिमावण्णा केवलिणो समुग्घदो अजोगी य ।
सिद्धा य अणाहारा सेसा आहारया जीवा ॥६६६॥

अर्थ- विग्रहगतिको प्राप्त होने वाले चारों गति सम्बन्धी जीव प्रतर और लोकपूर्ण समुद्घात करनेवाले सयोगकेवली, अयोगकेवली, समस्त सिद्ध इतने जीव तो अनाहारक होते हैं और इनको छोड़कर शेष सभी जीव आहारक होते हैं।

Trans. 666. Souls who are in transmigration (Vigraha Gati), the omniscients (in the 3rd, 4th and 5th instants in omniscient overflow, when they spread sheet-wise across the universe, fill it, and then contract sheet-wise again), and non-vibrating omniscients), and the liberated (souls are) non-assimilative (Anāhāraka). The rest (are) assimilative (Āhāraka).

वेयणकसायवेगुव्वियो य मरणंतियो समुग्घादो ।
तेजाहारे छट्ठो सत्तमओ केवलीणं तु ॥६६७॥

अर्थ- समुद्घातके सात भेद हैं- वेदना, कषाय, वैक्रियिक, मारणान्तिक, तैजस, आहारक, केवल। इनका स्वरूप लेश्यामार्गणाके क्षेत्राधिकारमें कहा जा चुका है, इसलिए यहाँ पर नहीं कहा है।

Trans. 667. Anguish (Vedanā), passion (Kaṣāya), fluid (Vaikriyika), death-bed (Mārṇāntika), electric (Taijasa), the 6th assimilative (Āhāraka) and the 7th of the omniscient (kevalī, are the seven) overflows (Samudghāta).

मूलसरीरमछंडिय उत्तरदेहस्स जीवपिंडस्स ।
णिग्गमणं देहादो होदि समुग्घादणामं तु ॥६६८॥

अर्थ- मूल शरीरको न छोड़कर तैजस, कर्मणरूप उत्तर देहके साथ जीवप्रदेशोंके शरीरसे बाहर निकलनेको समुद्घात कहते हैं।

Trans. 668. Without having left the primary body, the going out of a group of soul (spatial units, Pradeśas) from the body along with the secondary bodies (i.e., karmic and electric, which two are never separable from the mundane soul) is called overflow (Samudghāta).

आहारमारणतिय दुगं पि णियमेण एगदिसिगं तु ।

दसदिसि गदा हु सेसा पंच समुद्घादया होंति ॥६६६॥

अर्थ- उक्त सात प्रकारके समुद्घातोंमें आहारक और मारणान्तिक ये दो समुद्घात तो एक ही दिशामें गमन करते हैं; किन्तु बाकीके पाँच समुद्घात दशों दिशाओंमें गमन करते हैं।

Trans. 669. And the (soul in the) two Āhāraka and death-bed overflows necessarily goes only in one direction. But (souls) in the other 5 overflows go in the ten directions.

अंगुलअसंखभागो कालो आहारयस्स उक्कस्सो ।

कम्मम्मि अणाहारो उक्कस्सं तिण्ण समया हु ॥

अर्थ- आहारकका उत्कृष्ट काल सूच्यंगुलके असंख्यातवें भागप्रमाण है। कर्मण शरीरमें अनाहारका उत्कृष्ट काल तीन समयका है और जघन्य काल एक समयका है तथा आहारका जघन्य काल तीन कम श्वासके अठारहवें भाग प्रमाण है क्योंकि विग्रहगतिसम्बन्धी तीन समयोंके घटाने पर क्षुद्र भवका काल इतना ही अवशेष रहता है।

Trans. 670. The maximum time of an assimilative (Āhāraka soul is the number of spatial units in) an innumerable part of a (linear) finger (Sūcyāṅgula) and the maximum (time) of the non-assimilative (soul) in the Karmic body (is) 3 instants.

कम्मकइकायजोगी होदि अणाहारयाण परिमाणं ।

तव्विरहदसंसारी सव्वो आहार परिमाणं ॥६७१॥

अर्थ- कर्मणकाययोगी जीवोंका जितना प्रमाण है उतना ही अनाहारक जीवोंका प्रमाण है और संसारी जीवराशिमेंसे कर्मणकाययोगी जीवोंका प्रमाण घटाने पर जो शेष रहे उतना ही आहारक जीवोंका प्रमाण है।

Trans. 671. The number of non-assimilative (souls) is (the same as that of) the souls with Karmic body Vibration, Mundane souls minus these (is) the number of all assimilative souls.

वत्थुणिमित्तं भावो जादो जीवस्स जो दु उवजोगो ।

सो दुविहो णायव्वो सायारो णेव णायारो ॥६७२॥

अर्थ- जीवका जो भाव वस्तुको (ज्ञेयको) ग्रहण करनेके लिये प्रवृत्त होता है उसको उपयोग कहते हैं। इसके दो भेद हैं- एक साकार (सविकल्प) दूसरा निराकार (निर्विकल्प)।

Trans. 672. The (conscious) thought-activity produced in the soul for the purpose of (apprehending) a substance is certainly conscious attentiveness or attention (Upayoga). It should be known to be of two kinds with form (Sākāra) and without form (nirākāra).

णाणं पंचविहं पि य अण्णाणतियं च सागरुवजोगो ।

चदुदंसणमणगारो सव्वे तल्लक्खणा जीवा ॥६७३॥

अर्थ- पाँच प्रकारका सम्यग्ज्ञान- मति, श्रुत, अवधि, मनःपर्यय तथा केवल और तीन प्रकारका अज्ञान (मिथ्यात्व)- कुमति, कुश्रुत, विभंग ये आठ साकार उपयोगके भेद हैं। चार प्रकारका दर्शन चक्षुर्दर्शन, अचक्षुर्दर्शन, अवधिदर्शन और केवलदर्शन अनाकार उपयोग है। यह उपयोग ही सम्पूर्ण जीवोंका लक्षण है क्योंकि उपयोगके इन १२ प्रकारोंमें जीवके कोई न कोई उपयोग अवश्य रहा करता है।

Trans. 673. Right knowledge of 5 kinds, and wrong knowledge of 3 kinds is attention with form (Sākāra upayoga). Conation of 4 (kinds) is (attention) without form. This (conscious attention is) a differentia (Lakṣaṇa) of all the souls.

मदिसुदओहिमणेहि य सगसगविसयेविसेस विष्णाणं ।

अंतोमुहुत्तकालो उवजोगो सो दु सायारो ॥६७४॥

अर्थ- मति, श्रुत, अवधि और मनःपर्यय इनके द्वारा अपने अपने विषयका अन्तर्मुहूर्तकाल पर्यन्त जो विशेष ज्ञान होता है उसको ही साकार उपयोग कहते हैं।

Trans. 674. By (the help of) sensitive, scriptural, visual, and mental knowledge, detailed knowledge of their respective subject matter lasting for one Antar-Muhūrta is certainly (attention) with form.

इंदियमणोहिणा वा अत्थे अविसेसि दूण जं गहणं ।

अंतोमुहुत्तकालो उवजोगो सो अणायारो ॥६७५॥

अर्थ- इन्द्रिय, मन और अवधिके द्वारा अन्तर्मुहूर्त कालतक पदार्थोंका जो सामान्यरूपसे ग्रहण होता है उसको निराकार उपयोग कहते हैं।

Trans. 675. By the (help of) sensed, mind and visual (conation) detail-less apprehension of substances lasting for one Antar-Muhūrta (is) attention without form.

णाणुवजोगजुदाणं परिमाणं णाणमग्गणं व हवे ।

दंसणुवजोगियाणं दंसणमग्गण व उत्तकमो ॥६७६॥

अर्थ- ज्ञानोपयोग वाले जीवोंका प्रमाण ज्ञानमार्गणा वाले जीवोंकी तरह समझना चाहिए और दर्शनोपयोग वाले जीवोंका प्रमाण दर्शनमार्गणा वाले जीवोंकी तरह समझना चाहिए। इनमें कुछ विशेषता नहीं है।

Trans. 676. The number of souls with knowledge-attention is the same as (given under knowledge quest, Jñāna Mārgaṇā). That of souls with conation attention is (given) under conation-quest described in its order (above).

गुणजीवा पज्जत्ती पाणा सण्णा य मग्गणुवजोगो ।

जोग्गापरूविदव्वा ओघादेसेसु पत्तेयं ॥६७७॥

अर्थ- उक्त बीस प्ररूपणाओंमेंसे गुणस्थान और मार्गणास्थानमें यथायोग्य प्रत्येक गुणस्थान, जीवसमास, पर्याप्ति, प्राण, संज्ञा मार्गणा और उपयोगका निरूपण करना चाहिए।

Trans. 677. Spiritual stages (Guṇasthāna), soul-classes (Jīva Samāsa), developments (Paryāpati), vitalities (Prāṇa) animate-feelings (Sanjñā), soul-quests (Mārgaṇā), attention (Upayoga), should each be duly described with reference to the spiritual stages and the soul-quests.

चउ पण चोदस चउरो णिरयादिसु चोदसं तु पंचक्खे ।

तसकाये सेसिंदिय काये मिच्छं गुणट्ठाणं ॥६७८॥

अर्थ- गतिमार्गणाकी अपेक्षासे क्रमसे नरकगतिमें आदिके चार गुणस्थान होते हैं और तिर्यचगतिमें पाँच मनुष्यगतिमें चौदह तथा देवगतिमें नरकगतिके समान चार गुणस्थान होते हैं। इन्द्रियमार्गणाकी अपेक्षा पंचेन्द्रिय जीवोंके चौदह गुणस्थान और शेष एकेन्द्रियसे लेकर चतुरिन्द्रिय पर्यन्त जीवोंके केवल मिथ्यात्व गुणस्थान ही होता है। कायमार्गणाकी अपेक्षा त्रसकायके चौदह और शेष स्थावर कायके एक मिथ्यात्व गुणस्थान ही होता है।

Trans. 678. The spiritual stages in the hellish and other (i.e., sub-human, human and celestial) conditions of existence are respectively four, five, fourteen and four; fourteen in the 5 sensed, and, in mobile embodiment; (and) wrong-belief stage, (is only) in other-sensed, and in (other) embodiments.

मज्झिमचउमणवयणे सण्णिप्पहुदिं दु जाव खीणो ति ।

सेसाणं जोगि ति य अणुभयवयणं तु वियलादो ॥६७६॥

अर्थ- असत्य मन, उभय मन, असत्य वचन, उभय वचन इन चार योगों के स्वामी संज्ञी मिथ्यादृष्टिसे लेकर क्षीणकषाय पर्यन्त बारह गुणस्थान वाले जीव हैं और सत्यमन, अनुभयमन तथा सत्यवचन योग इनके स्वामी संज्ञी मिथ्यादृष्टिसे लेकर आदिके तेरह गुणस्थान वाले जीव हैं। अनुभयवचन योग विकल-द्वीन्द्रियसे लेकर सयोगीपर्यन्त होता है। अनुभयवचनको छोड़कर शेष तीन प्रकारका वचन और चार प्रकारका मन इनमें एक संज्ञी पर्याप्त ही जीवसमास है और अनुभय वचनमें पर्याप्त द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, असंज्ञी पंचेन्द्रिय, संज्ञी पंचेन्द्रिय, ये पाँच जीवसमास होते हैं।

Trans. 679. In the 4 middle (vibrations) of mind and speech (i.e., the false and true of each of them, there are stages from (wrong-belief) up to the delusionless, in rationals.

In the other (four vibrations, i.e., true and neither-false-nor-true of mind and speech, the stages are from the 1st up to the 13th), the vibratory omniscient,; but neither (true-nor-false) speech (vibration begins) from the incomplete sensed (i.e., 2, 3 and 4 sensed).

ओरालं पज्जत्ते थावरकायादि जाव जोगो ति ।

तम्मिस्सम पज्जत्ते चदुगुणठाणेसु णियमेण ॥६८०॥

अर्थ- औदारिक काययोग, स्थावर एकेन्द्रिय पर्याप्त मिथ्यादृष्टिसे लेकर सयोगी पर्यन्त होता है और औदारिक मिश्र काययोग नियमसे चार अपर्याप्त गुणस्थानोंमें ही होता है। औदारिक काययोगमें पर्याप्त सात जीवसमास होते हैं और मिश्र योगमें अपर्याप्त सात जीवसमास हैं।

Trans. 680. In the physical (body-vibration) from the developable immobile embodiment, etc., (the stages are from the 1st up to (the 13th stage of) vibratory omniscient. In the mixed (i.e., physical-mixed-with Karmic) non-developable, necessarily, there are (the first) 4 spiritual stages.

मिच्छे सासण सम्मे पुंवेदयदे कवाडजोगिम्मि ।

णरतिरिये वि य दोण्णिवि होंतित्ति जिणेहिं णिद्धिं ॥६८१॥

अर्थ- मिथ्यात्व, सासादन, पुरुषवेदके उदयसंयुक्त असंयत तथा कपाट समुद्घात करने वाले सयोगकेवली इन चार स्थानोंमें ही औदारिक मिश्रकाययोग होता है तथा औदारिककाययोग और औदारिक मिश्रकाययोग ये दोनों ही मनुष्य और तिर्यचोंके ही होते हैं ऐसा जिनेन्द्र देवने कहा है।

Trans. 681. (These four stages are) wrong belief, downfall, vowless belief, (asamyata) stage in soul with masculine inclination, and the (13th stage of) door-leaves-wise (Kapāta). Vibratory omniscient, (in the 2nd and 7th instants of the omniscient overflow). These two (i.e., Physical and physical mixed vibrations) are only in humans and sub-human. It has been described by the Conquerors.

वेगुव्वं पज्जत्ते इदरे खलु होदि तस्स मिस्सं तु ।

सुरणिरयचउट्ठाणे मिस्से ण हि मिस्स जोगो हु ॥६८२॥

अर्थ- मिथ्यादृष्टिसे लेकर असंयतपर्यन्त चारों ही गुणस्थान वाले देव और नारकियोंके पर्याप्त अवस्थामें वैक्रियिक काययोग होता है और अपर्याप्त अवस्थामें वैक्रियिक मिश्रकाययोग होता है किन्तु यह मिश्रकाय योग चार गुणस्थानों मेंसे मिश्रगुणस्थानमें नहीं हुआ करता क्योंकि कोई भी मिश्रकाययोग कहीं भी मिश्र गुणस्थानमें नहीं पाया जाता। वैक्रियिककाययोगमें एक संज्ञी पर्याप्त ही जीवसमास है और मिश्रयोगमें एक संज्ञी निर्वृत्यपर्याप्त ही जीवसमास है।

Trans. 682. In the fluid body vibration in developable, celestial and hellish beings (there are) the first four stages. In the other (i.e., non-developable) there is the mixed, i.e. fluid-mixed-with-karmic body vibration). This mixed vibration (exists) not in (the third stage of) mixed (right-and-wrong-belief).

आहारो पज्जत्ते इदरे खलु होदि तस्स मिस्सो दु ।

अंतोमुहुत्तकाले छट्ठगुणे होदि आहारो ॥६८३॥

अर्थ- आहारककाययोग पर्याप्त अवस्थामें होता है और आहारक मिश्रयोग अपर्याप्त अवस्था में होता है ये दोनों ही योग छठे गुणस्थानवर्ती मुनि के ही होते हैं और इनके उत्कृष्ट और जघन्य काल का प्रमाण अन्तर्मुहूर्त ही है।

Trans. 683. In the assimilative (body vibration) in the developable there is the 6th stage for the duration of one Antar-muhūrta. In the other (i.e., non-developable) certainly is the mixed (i.e., assimilative-mixed-with physical-body vibration), (in which) 6th assimilation there is the stage for one Antar-Muhūrta).

ओरालियमिस्सं वा चउगुणठाणेसु होदि कम्मइयं ।

चदुगदिविग्गहकाले जोगिस्स य पदरलोगपूरगणे ॥६८४॥

अर्थ- औदारिक मिश्रयोगकी तरह कर्मण योग भी उक्त प्रथम, द्वितीय, चतुर्थ ये तीन और सयोग केवली इस तरह चार गुणस्थानोंमें और चारों ही गति सम्बन्धी विग्रहगतियोंके कालमें होता है। विशेषता केवल इतनी है कि औदारिक मिश्रयोगको जो सयोगकेवली गुणस्थानमें बताया है सो कपाट समुद्घातके समयमें बताया है और कर्मणयोगको प्रतर तथा लोकपूरण समुद्घात समयमें बताया है। यहाँ पर कर्मणकाययोगमें जीवसमास भी औदारिक मिश्रकी तरह आठ होते हैं।

Trans. 684. Like the physical-mixed (with Karmic body vibration), the Karmic (body-vibration) is in the same 4 stages. (But the difference is that) it is at the time of transmigration for the 4 conditions of existence and in the vibratory omniscient stage (it is at the 3rd, 4th and 5th instant: of) the sheet-wise and whole universe (and again sheet-wise forms of omniscient overflow).

थावरकायप्पहुदी संढो सेसा असण्णिआदी य ।

अणियट्टिस्स य पढमो भागो त्ति जिणेहिं णिदिट्ठं ॥६८५॥

अर्थ- वेदमार्गणा के तीन भेद हैं- स्त्री, पुरुष, नपुंसक। इनमें नपुंसक वेद, स्थावर काय मिथ्यादृष्टिसे लेकर अनिवृत्तिकरणके पहले सवेदभाग पर्यन्त रहता है। अतएव इसमें गुणस्थान नव और जीवसमास चौदह होते हैं। शेष स्त्री और पुरुषवेद असंज्ञी पंचेन्द्रिय मिथ्यादृष्टिसे लेकर अनिवृत्तिकरणके सवेद भाग तक होते हैं। यहाँ पर गुणस्थान तो पहले की तरह नव ही हैं किन्तु जीवसमास असंज्ञी पंचेन्द्रियके पर्याप्त अपर्याप्त और संज्ञीके पर्याप्त, अपर्याप्त इस तरह चार ही होते हैं।

Trans. 685. (In) the common (sex) from an immobile embodiment, and (in) the rest (i.e., male and female sex) from the irrational (five sensed) to others (the stages are from wrong belief) to the first part (with sex inclination) of the (9th stage of) advanced thought-activity (Anivṛtti Karaṇa). It is said by the Conquerors.

थावरकायप्पहुदी अणियट्टीवित्तिचउत्थ भागोत्ति ।

कोहत्तियं लोहो पुण सुहमसरागो त्ति विण्णेयो ॥६८६॥

अर्थ- कषायमार्गणाकी अपेक्षा क्रोध, मान, माया ये तीन कषाय स्थावरकाय मिथ्यादृष्टिसे लेकर अनिवृत्तिकरणके दूसरे, तीसरे, चौथे भाग तक क्रमसे रहते हैं और लोभकषाय दसवें सूक्ष्मसांपराय गुणस्थान तक रहता है। अतएव आदिकी तीन कषायोंमें गुणस्थान नव और लोभकषायमें दश होते हैं किन्तु जीवसमास दोनों जगह चौदह-चौदह ही होते हैं।

Trans. 686. (In passion quest) the three, anger (pride, and deceit passions) (are found, respectively, in stages commencing from wrong belief) to the 2nd, 3rd, and 4th part of (the 9th stage of) advanced thought-activity (Anivṛtti Karaṇa (in all) from immobile embodiment. Greed (begins like the others but goes up) to (the 10th stage of) slightest attachment (Sūkṣma Sarāga). Thus it should be known.

थावरकायप्पहुदी मदिसुदअण्णाणं यं विभंगो दु ।

सण्णीपुण्णप्पहुदी सासणसम्मोत्ति णायव्वो ॥६८७॥

अर्थ- ज्ञानमार्गणामें कुमति और कुश्रुत ज्ञान स्थावरकाय मिथ्यादृष्टिसे लेकर सासादन गुणस्थान तक होते हैं। विभंगज्ञान संज्ञी पर्याप्त मिथ्यादृष्टिसे लेकर सासादन पर्यन्त होता है। कुमति और कुश्रुत ज्ञानमें गुणस्थान दो और जीवसमास चौदह होते हैं। विभंगमें गुणस्थान दो और जीवसमास एक संज्ञी पर्याप्त ही होता है।

Trans. 687. In the wrong sensitive and scriptural knowledge, from the immobile embodiment; and in wrong visual knowledge from developable rationals, (the stages) should be known (to be wrong belief and) downfall belief.

सण्णाणत्तिगं अविरदसम्मादी छट्ठगादि मणपजो ।

खीणकसायं जाव दु केवलणाणं जिणे सिद्धे ॥६८८॥

अर्थ- आदिके तीन सम्यक्ज्ञान (मति, श्रुत, अवधि) अव्रतसम्यक्दृष्टिसे लेकर क्षीणकषाय पर्यन्त होते हैं। मनःपर्ययज्ञान छठे गुणस्थानसे लेकर बारहवें गुणस्थान तक होता है और केवलज्ञान तेरहवें, चौदहवें गुणस्थानमें तथा सिद्धोंके होता है।

Trans. 688. In the three right (kinds of sensitive, scriptural and visual knowledge) from vowless right belief etc.; and in mental knowledge from the 6th (stage of imperfect vow Pramatta) etc. (the stages are) up to (the 12th) delusion-less (Kṣiṇa Kaṣāya). And perfect knowledge (is found in the 13th and 14th stages of vibratory and non-vibratory omniscient) Conquerors; and in the liberated (Siddhas).

अयदोत्ति हु अविरमणं देसे देसो पमत्त इदरे य ।

परिहारो सामाइयछेदो छयट्ठादि थूलो ति ॥६८९॥

सुहुमो सुहुमकसाये संते खीणे जिणे जहक्खादं ।

संजममग्गण भेदा सिद्धे णत्थि ति णिदिट्ठं ॥६९०॥

अर्थ- संयम मार्गणामें असंयमको भी गिनाया है, इसलिये यह (असंयम) मिथ्यादृष्टिसे लेकर अव्रतसम्यक्दृष्टि तक होता है। अतः यहाँपर गुणस्थान और जीवसमास चौदह होते हैं। देशसंयम पाँचवें गुणस्थानमें ही होता है अतः यहाँपर गुणस्थान एक और जीवसमास भी एक संज्ञी पर्याप्त ही होता है। परिहारविशुद्धि संयम छठे सातवें गुणस्थानमें ही होता है अतएव यहाँ पर गुणस्थान दो और जीवसमास एक संज्ञी पर्याप्त ही होता है क्योंकि परिहार विशुद्धि वाला आहारक नहीं होता। अतएव आहारक शरीरकी अपेक्षासे भी यहाँ अपर्याप्तता नहीं पाई जाती। सामायिक और छेदोपस्थापना संयम छठेसे लेकर अनिवृत्तिकरण गुणस्थान तक होता है। इसलिये यहाँपर गुणस्थान चार और जीवसमास संज्ञी पर्याप्त और आहारक अपर्याप्त इस तरह दो होते हैं। सूक्ष्मसांपराय संयम दसवें गुणस्थानमें ही होता है। अतः यहाँ पर गुणस्थान और जीवसमास एक-एक ही हैं। यथाख्यातसंयम उपशांतकषाय, क्षीणकषाय, सयोगकेवली और अयोगकेवलीके होता है। यहाँपर गुणस्थान चार और जीवसमास संज्ञी पर्याप्त तथा केवलसमुद्घातकी अपेक्षा अपर्याप्त ये दो होते हैं। सिद्ध जीव गुणस्थान संयमस्थान तथा मार्गणाओंसे रहित हैं। अतः उनके कोई भी संयम नहीं होता।

Trans. 689-90. (In the control-quest), non-control is (from the first up) to (the 4th) vowless stage (Asamyaata). Partial control (is) in the (5th) partial vow (stage). Pure-and-absolute-non-injury-control (Parihāra Viśuddhi is) in the 6th and 7th stages of) imperfect vow and the other (perfect vow). Equanimity (Sāmāyika) and recovered-equanimity (Chedopasthāpanā are) from the 6th up to (the 9th stage of) gross (passion, i.e., advanced thought activity Anivṛtti Karaṇa).

Slightest (delusion-control Sūkṣma Sāmparāya Samyama is) in (the 10th stage of) slightest-delusion (Sūkṣma Sāmparāya). Ideal Passionless (control, Yathākhyāta Samyama is) in (the 11th, 12th 13th and 14th stages of) subsided delusion, delusionless, (the vibratory and non-vibratory) Conquerors. (There) are no distinctions of control-quest in the liberated (souls, Siddhas). So it has been said.

चउरक्खथावराविरदसम्माइद्दी दु खीणमोहोत्ति ।

चक्खु अचक्खु ओही जिणसिद्धे केवलं होदि ॥६९१॥

अर्थ- दर्शनके चार भेद हैं- चक्षुदर्शन, अचक्षुदर्शन, अवधिदर्शन, केवलदर्शन; यह पहले बता चुके हैं। इनमें पहला चक्षुदर्शन चतुरिन्द्रियसे लेकर क्षीणमोह पर्यन्त होता है और अचक्षुदर्शन स्थावर कायसे लेकर क्षीणमोह पर्यन्त होता है तथा अवधिदर्शन सम्यक्दृष्टिसे लेकर क्षीणमोह पर्यन्त होता है। केवलदर्शन सयोगकेवल और अयोगकेवली इन दो गुणस्थानोंमें और सिद्धोंके होता है।

Trans. 691. (In the conation-quest), ocular, non-ocular and visual (conations, respectively are found) from 4-sensed, immobiles, and from right-believers (in the stages from the 1st) to (the 12th) delusionless (Kṣiṇa-moha); (but the visual begins from the 4th). The perfect (Kevala conation is in the 13th and 14th stages of vibratory and non-vibratory) Conquerors, (and also) in the liberated (Siddhas).

थावरकायप्पहुदी अविरदसम्मो त्ति असुहत्तिय लेस्सा ।

सण्णीदो अपमत्तो जाव दु सुह तिण्णि लेस्साओ ॥६९२॥

अर्थ- लेश्याओंके छह भेदोंको पहले बता चुके हैं उनमें आदिकी कृष्ण, नील, कपोत ये तीन अशुभलेश्या स्थावर कायसे लेकर चतुर्थ गुणस्थान पर्यन्त होती है और अन्तकी पीत, पद्म, शुक्ल ये तीन शुभ लेश्यायें संज्ञी मिथ्यादृष्टि से लेकर अप्रमत्तपर्यन्त होती हैं।

Trans. 692. (In thought-paint quest) the three bad (black, blue and grey) thought-paints in all from immobile embodiment (in the stages from wrong belief) to (the 4th or) vowless right belief (stage). And the three good (i.e., yellow, pink and white are found) from the rationals (in the stages from wrong belief) to (the 7th stage of) perfect vow (Apramatta).

णवरि य सुक्का लेस्सा सजोगि चरिमोत्ति होदि णियमेण ।

गयजोगिम्मि वि सिद्धे लेस्सा णत्थि त्ति णिदिट्ठं ॥६९३॥

अर्थ- शुक्ललेश्यामें यह विशेषता है कि वह संज्ञी पर्याप्त मिथ्यादृष्टिसे लेकर सयोगकेवली गुणस्थान पर्यन्त होता है। इसमें जीवसमास दो ही होते हैं। इसके ऊपर अयोगकेवली चौदहवें गुणस्थानवर्ती जीवोंके तथा सिद्धोंके कोई भी लेश्या नहीं होती यह परमागममें कहा है।

Trans. 693. But the white paint is necessarily up to the end of the (13th stage of) vibratory omniscient. And in the non-vibratory stage and in the liberated (souls, there is) no thought-paint, It has been said.

थावरकायप्पहुदी अजोगिचरिमो त्ति होंति भवसिद्धा ।

मिच्छाइट्ठिहाणे अभवसिद्धा हवन्ति त्ति ॥६९४॥

अर्थ- भव्यसिद्ध स्थावरकाय मिथ्यादृष्टिसे लेकर अयोगी पर्यन्त होते हैं और अभव्यसिद्ध मिथ्यादृष्टि स्थानमें ही रहते हैं।

Trans. 694. (In the would-be-liberated quest), the would-be-liberated souls from immobile embodiment (upwards) have (all stages from the 1st up) to the end of (the 14th), the non-vibratory (omniscient stage). And the non-would-be-liberated (souls) are only in the stage of wrong belief.

मिच्छो सासण मिस्सो सगसगठाणम्मि होदि अयदादो ।

पढमुवसमवेदग सम्मत्तदुगं अप्पमत्तो ति ॥६६५॥

अर्थ- सम्यक्त्व मार्गणाके छह भेद हैं- मिथ्यात्व, सासादन, मिश्र, औपशमिक, क्षायिक, क्षायोपशमिक। इसमेंसे आदिके तीन सम्यक्त्व तो अपने-अपने गुणस्थानमें ही होते हैं और प्रथमोपशम तथा वेदक ये दो सम्यक्त्व चतुर्थ गुणस्थानसे लेकर सातवें गुणस्थान तक होते हैं।

Trans. 695. (In the right-belief quest) the wrong belief, downfall (belief) and mixed (right-and-wrong belief) are in their respective stages (of the same name). The two i.e., first subsidential and the destructive-subsidential right beliefs (are) from the vowless (4th stage), to the perfect vow (7th stage).

विदियुवसमसम्मत्तं अविरदसम्मादि संतमोहो ति ।

खड्गं सम्मं च तहा सिद्धो ति जिणेहि णिदिट्ठं ॥६६६॥

अर्थ- द्वितीयोपशम सम्यक्त्व चतुर्थ गुणस्थानसे लेकर उपशान्तमोह पर्यन्त होता है। क्षायिक सम्यक्त्व चतुर्थ गुणस्थानसे लेकर अयोगकेवली गुणस्थानपर्यन्त होता है। द्वितीयोपशम सम्यक्त्वमें संज्ञी पर्याप्त और देव पर्याप्त ये दो जीवसमास होते हैं तथा यह क्षायिक सम्यक्त्व सिद्धोंके भी होता है परन्तु वहाँपर कोई भी जीवसमास नहीं होता।

Trans. 696. Second-subsidential-right belief (is found from the (4th or) vowless (stage) to the (11th or) subsided-delusion (stage). Destructive right-belief (is in all, those) and up to (the condition of) liberated soul. It has been said by the Conquerors.

सण्णी सण्णिप्पहुदी खीणकसाओत्ति होदि णियमेण ।

थावरकायप्पहुदी असण्णित्ति हवे असण्णी हु ॥६६७॥

अर्थ- संज्ञी जीव संज्ञी मिथ्यादृष्टिसे लेकर क्षीणकषाय पर्यन्त होते हैं। इनमें गुणस्थान बारह और जीव समास संज्ञी पर्याप्त अपर्याप्त ये दो ही होते हैं। असंज्ञी जीव स्थावर कायसे लेकर असंज्ञी पंचेन्द्रिय पर्यन्त होते हैं इनमें गुणस्थान एक मिथ्यात्व ही होता है और जीवसमास संज्ञी सम्बन्धी पर्याप्त-अपर्याप्त इन दो भेदोको छोड़कर शेष बारह होते हैं।

Trans. 697. (In the rational quest) rational souls from the (lowest) rational souls, are necessarily (from the 1st) to (12th or) passionless (stage). And irrationals from the immobile embodiment souls up to irrational five-sensed) are (in the 1st stage of wrong-belief only).

थावरकायप्पहुदी सजोगिचरिमोत्ति होदि आहारी ।

कम्मइय अणाहारी अजोगिसिद्धे वि णायव्वो ॥६६८॥

अर्थ- स्थावर काय मिथ्यादृष्टिसे लेकर सयोग केवलीपर्यन्त आहारी होते हैं और कर्मणकाय योग वाले तथा अयोग केवली और सिद्ध अनाहारक समझने चाहिए।

Trans. 698. (In the assimilation quest) assimilative (souls) from immobile embodiment (onwards), (are in the stages from the 1st) to the end of (13th stage of) vibratory (omniscient).

It should be known that non-assimilative souls (are found) in Karmic (body vibration, in the stages of wrong-belief, downfall, vowless, and in omniscient overflow in the 13th stage) and in (the 14stage of) non-vibratory omniscient and in the liberated (state).

मिच्छे चोदस जीवा सासण अयदे पमत्तविरदे य ।

सण्णिदुगं सेसगुणे सण्णी पुण्णी दु खीणोत्ति ॥६६९॥

अर्थ- मिथ्यात्व गुणस्थानमें चौदह जीवसमास हैं। सासादन, असंयत, प्रमत्तविरत और च शब्दसे सयोगकेवली इनमें संज्ञी पर्याप्त ये दो जीवसमास होते हैं। शेष क्षीणकषाय गुणस्थान पर्यन्त आठ गुणस्थानोंमें तथा तु शब्दसे अयोगकेवली गुणस्थानमें संज्ञी पर्याप्त एक ही जीवसमास होता है।

Trans. 699. In the wrong belief (stage, there are) (all the) 14 soul classes. In downfall, vowless, imperfect vow and (in vibratory omniscient stages there are) the two rational, (i.e., developable and non-developable). In the other stages up to delusionless, (the 12th) (there is) only (one soul class of) developable rationals.

तिरियगदीये चौदस हवति सेसेसु जाण दो दो दु ।

मग्गण ठाणस्सेव पेयाणि समास ठाणाणि ।।७००।।

अर्थ- मार्गणास्थानके जीवसमासोंको संक्षेपसे इस प्रकार समझना चाहिए कि तिर्यग्गति मार्गणामें तो चौदह जीवसमास होते हैं और शेष समस्त गतियोंमें संज्ञी पर्याप्त अपर्याप्त ये दो-दो ही जीवसमास होते हैं। शेष मार्गणास्थानोंमें यथायोग्य पूर्वोक्त क्रमानुसार जीवसमास घटित कर लेने चाहिए।

Trans. 700. The soul-classes in the (1st) quest places should be known as follows :-

In the sub-huma condition of existence (there) are all the fourteen. In the remaining 3 (conditions of existence) know two (i.e., rational developable and undevelopable) in each.

पज्जती पाणावि य सुगमा भाविंदयं ण जोगिम्हि ।

तहिं वाचुस्सासाउग कायत्तिगदुग जोगिणो आऊ ।।७०१।।

अर्थ- पर्याप्ति और प्राण ये सुगम हैं इसलिये यहाँपर इनका पृथक् उल्लेख नहीं करते क्योंकि बारहवें गुणस्थान तक सबही पर्याप्ति और सब ही प्राण होते हैं। तेरहवें गुणस्थानमें भावेन्द्रिय नहीं होती; किन्तु द्रव्येन्द्रियकी अपेक्षा छहों पर्याप्ति होती हैं परन्तु प्राण यहाँ पर चार ही होते हैं। वचन, श्वासोच्छवास, आयु और कायबल। इसी गुणस्थानमें वचनबलका अभाव होने पर तीन और श्वासोच्छवासका भी अभाव होने पर दो ही प्राण रहते हैं। चौदहवें गुणस्थानमें काययोगका भी अभाव हो जानेसे केवल आयु प्राण ही रहता है।

Trans. 701. And (it is) easy (to find the stage in which the souls are) developable and have vitalities. (because, up to the 12th stage all are developable and have vitalities). (There are) no subjective sense (Bhāvendriya) in (the thirteenth stage of) vibratory omniscient. In a vibratory omniscient (there are) speech, respiration, age and body-power, or 3 (respiration, age and body power), or 2 (age and body-power vitalities). In the non-vibratory omniscient (there is only) age (vitality).

छट्ठोत्ति पढमसण्णा सकज्ज सेसा य कारणावेक्खा ।

पुव्वो पढमणियट्ठी सुहुमोत्ति कमेण सेसाओ ।।७०२।।

अर्थ- मिथ्यात्व गुणस्थानसे लेकर प्रमत्तपर्यन्त आहार, भय, मैथुन और परिग्रह ये चारों ही संज्ञायें कार्यरूप होती हैं किन्तु इसके ऊपर अप्रमत्त आदिमें जो तीन आदिक संज्ञा होती हैं वे सब कारणकी अपेक्षासे ही बताई हैं कार्यरूप नहीं हुआ करती। संज्ञाओंके कारणभूत कर्मोंके अस्तित्वकी अपेक्षासे ही वहाँ पर वे संज्ञायें मानी गई हैं। छठे गुणस्थानसे आहारसंज्ञाकी व्युत्पत्ति हो जाती है। शेष तीन संज्ञायें कारणकी अपेक्षासे अपूर्वकरण पर्यन्त होती हैं। यहाँ पर (अपूर्वकरणमें) भय संज्ञाकी व्युत्पत्ति हो जाती है। शेष दो संज्ञायें अनिवृत्ति करणके प्रथम सवेद भाग पर्यन्त होती हैं। यहाँपर मैथुन संज्ञाका विच्छेद होनेसे सूक्ष्म सांपरायमें एक परिग्रह संज्ञा ही होती है। इस परिग्रह संज्ञाका भी यहाँ विच्छेद हो जानेसे ऊपर उपशान्त कषाय आदि गुणस्थानोंमें कोई भी संज्ञा नहीं होती।

Trans. 702. (All the 4 impulses, Samjñā, hunger, fear, coition, and attachment, are) active (from the first) to the 6th (stage of imperfect vow). (At the end) of the 6th stage the first impulse (drops off), and the remaining (three exist) from the point of view of their causes only. The first (of these 3, i.e., fear) drops off at the end of (the 8th stage), new-thought activity, (Apūrva-karaṇa). The remaining (coition and attachment drop off, respectively, at the end of the 9th i.e.) advanced-thought-activity (and the 10th, i.e.) slightest (passion, Sūkṣma Sāmparāya).

मग्गण उवजोगावि य सुग्गमा पुव्वं पखुविदत्तादो ।

गदिआदिसु मिच्छादि पखुविदे खुविदा होति ।।७०३।।

अर्थ- पहले मार्गणास्थानमें गुणस्थान और जीवसमासादिका निरूपण कर चुके हैं इसलिये यहाँ गुणस्थानके प्रकरणमें मार्गणा और उपयोगका निरूपण करना सुगम है।

Trans. 703. It is easy to note the (14) quests and (4) attentions (in the 14 stages), as they have been described before. Whatever has been said in the condition of existence and other quests and in wrong-belief, etc., (14 stages) is taken to be said here also.

तिसु तेरं दस मिस्से सत्तसु णव छट्ठयम्मि एयारा ।

जोगिम्मि सत्तजोगा अजोगिठाणं हवे सुण्णं ।।७०४।।

अर्थ- मिथ्यादृष्टि, सासादन, असंयत इन तीन गुणस्थानोंमें उक्त पन्द्रह योगोंमें से आहारक, आहारक मिश्रको छोड़कर शेष तेरह योग होते हैं। मिश्र गुणस्थानमें उक्त तेरह योगोंमें से औदारिकमिश्र, वैक्रियिक मिश्र, कर्मण इन तीनोंके घट जानेसे शेष दस योग होते हैं। इसके ऊपर छठे गुणस्थानको छोड़कर सात गुणस्थानोंमें नव योग होते हैं क्योंकि उक्त दश योगोंमेंसे एक वैक्रियिक योग घट जाता है किन्तु छठे गुणस्थानमें ग्यारह योग होते हैं क्योंकि उक्त दस योगोंमेंसे एक वैक्रियिक योग घटता है और आहारक, आहारकमिश्र ये दो योग मिलते हैं। सयोगकेवलीमें सात योग होते हैं, वे ये हैं- सत्यमनोयोग, अनुभय मनोयोग, सत्यवचनयोग, अनुभय वचनयोग, औदारिक, औदारिक मिश्र, कर्मण। अयोगकेवलीके कोई भी योग नहीं होता।

Trans. 704. In the three (stages of wrong belief, downfall and vowless, there are) 13 (Kinds of vibrations, i.e., all except assimilative-body and its mixed (i.e., assimilative-physical-body-vibration). In the mixed (stage), 10 (i.e. all the above 13, except physical mixed, fluid-mixed, and Karmic-body-vibration; because no soul dies in the mixed and there is no consequent migratory or undevelopable condition). And in (the next) seven (leaving the 6th, i.e., in the 5th, 7th, 8th, 9th, 10th, 11th and 12th), nine (i.e., the above 10, except the fluid-body-vibration). In the vibratory omniscient (there are) 7 vibrations (the true, and neither-false-nor-true speech and mind vibrations, physical body, physical body-mixed-with-karmic body, and the Karmic body vibrations). And (there) is no (vibration) in the stage of non-vibratory omniscient.

दोण्हं पंच य छच्चेव दोसु मिस्सम्मि होति वामिस्सा ।

सत्तुवजोगा सत्तसु दो चेव जिणे य सिद्धे य ।।७०५।।

अर्थ- दो गुणस्थानोंमें पाँच और दोमें छह मिश्रमें मिश्ररूप छह, सात गुणस्थानों में सात, जिन और सिद्धोंके दो उपयोग होते हैं।

Trans. 705. In the (first) two (stages there are) 5 attentions (ocular, non-ocular conation and wrong sensitive, scriptural and visual knowledge); and in the two (i.e. 4th and 5th stages), six (ocular, non-ocular and visual conations and right sensitive, scriptural and visual knowledges). And in the mixed

stage, (the above 6 are) mixed. And in the (next) 7 (i.e., from the 6th to 12th) seven (the above 6 and the mental knowledge attention). And in (Vibratory and Non-vibratory) Conquerors, and in the liberated (souls) there (are only) two (i.e. the attentiveness of perfect conation and perfect knowledge).

गोयमथेरं पणमिय ओघादेसेसु वीसभेदाणं ।

जोजणिकाणालावं वोच्छामि जहाकमं सुणह ॥७०६॥

अर्थ- सिद्धोंको वा वर्धमान तीर्थकरको यद्वा गौतमगणधरस्वामी को अथवा साधु समूहको नमस्कार करके गुणस्थान और मार्गणाओंके योजनिका रूप बीस भेदोंके आलापको क्रमसे कहता हूँ सो सुनो।

Trans. 706. Having bowed to the apostle Gautama (the chief apostle or Gaṇadhara of Lord Mahāvīra) I shall describe, in order, some further distinctions (Ālāpa) to supplement the above 20 chapters, on the (14) spiritual stages and the (14) soul-quests, Hear.

ओघे चोद्दसठाणे सिद्धे वीसदि विहाण मालावा ।

वेदकसायविभिण्णे अणियट्ठीपंचभागे य ॥७०७॥

अर्थ- परमागममें प्रसिद्ध चौदह गुणस्थान और चौदह मार्गणा स्थानोंमें उक्त बीस प्ररूपणाओंके सामान्य, पर्याप्त, अपर्याप्त ये तीन आलाप होते हैं। वेद और कषायकी अपेक्षासे अनिवृत्तिकरणके पाँच भागोंमें पाँच आलाप भिन्न-भिन्न समझने चाहिए।

Trans. 707. The further distinctions in the (14) stages and 14 quests dealt with in the above 20 chapters, (are general, Sāmānya; developable Paryāpta and non-developable Aparyāpta). From the point of view of sex-inclination and passion, (there are 5 distinctions) in the 5 parts (of the 9th stage) of advanced-thought-activity (anivrita Karṇa).

ओघे मिच्छदुगो वि य अयदपमत्ते सजोगि ठाणम्मि ।

तिण्णेव य आलावा सेसेसिक्को हवे णियमा ॥७०८॥

अर्थ- गुणस्थानोंमें मिथ्यात्व द्विक अर्थात् मिथ्यात्व, सासादन तथा असंयत, प्रमत्त और सयोगकेवली इन गुणस्थानोंमें तीनों आलाप होते हैं। शेष गुणस्थानोंमें एक पर्याप्त ही आलाप होता है।

Trans. 708. In the two stages of wrong belief, (and down-fall), and also in the vowless, and imperfect vow and vibratory omniscient stages (there are all) the three distinctions (i.e. general, developable and non-developable and in the remaining (stages), necessarily, (there) is only one (distinction i.e., developable Paryāpta).

सामण्णं पज्जत्तमज्जत्तं चेदि तिण्ण आलावा ।

दुवियप्पमपज्जत्तं लब्धीणिव्वत्तगं चेदि ॥७०९॥

अर्थ- आलाप के तीन भेद हैं- सामान्य, पर्याप्त, अपर्याप्त। अपर्याप्त के दो भेद हैं- एक लब्ध्यपर्याप्त दूसरा निर्वृत्यपर्याप्त।

Trans. 709. General, developable and non-developable these (are) the three distinctions. Non-developable is of two kinds, completely undevelopable (Labdhya Paryāpta) and potentially developable (Nirvrita-Paryāpta).

दुविहं पि अपज्जत्तं ओघे मिच्छेव होदि णियमेण ।

सासण अयदपमत्ते णिव्वित्ति अपुण्णगो होदि ॥७१०॥

अर्थ- दोनों प्रकारके अपर्याप्त आलाप समस्त गुणस्थानोंमेंसे मिथ्यात्व गुणस्थानमें ही होते हैं। सासादन, असंयत, प्रमत्त इनमें निर्वृत्यपर्याप्त आलाप होता है।

Trans. 710. In the wrong belief stage necessarily, (there) is the non-developable (distinction) of both the kinds. In the downfall, vowelless and imperfect vow stage (there) is only potentially developable (distinction).

जोगं पडि जोगिजिणे होदि हु णियमा अपुण्णगतं तु ।
अवसेसणवद्वाणे पज्जत्तालावगो एक्को ॥७११॥

अर्थ- सयोगकेवलियोंमें योग (समुद्घात)की अपेक्षासे नियमसे अपर्याप्त होती है इसलिये उक्त पाँच गुणस्थानोंमें तीन-तीन आलाप और शेष नव गुणस्थानों में एक पर्याप्त ही आलाप होता है।

Trans. 711. And in the vibratory conquerors, necessarily, there is undevelopableness with regard to (the physical-mixed-with-Karmic body) vibration (in the omniscient overflow). In the remaining 9 stages there is only one distinction of developable.

सत्तण्हं पुढवीणं ओघे मिच्छे य तिण्णि आलावा ।
पढमाविरदेवि तहा सेसाणं पुण्णगालावो ॥७१२॥

अर्थ- सातों ही पृथ्वियोंमें गुणस्थानोंमें से मिथ्यात्व गुणस्थानमें तीन आलाप होते हैं तथा प्रथमा पृथ्वीके अविरत गुणस्थानमें भी तीन आलाप होते हैं। शेष पृथिवियोंमें एक पर्याप्त ही आलाप होता है।

Trans. 712. In the wrong belief stage in the 7 hells, and in the vowelless stage of the 1st hell, also, (there are all) the three distinctions (general, developable and non-developable). And in the rest (of the stages, i.e., downfall, mixed and vowelless right belief in hell, there is only one) distinctions of developable.

तिरियचउक्काणोघे मिच्छदुगे अविरदे य तिण्णे व ।
णवरि य जोणिणि अयदे पुण्णो सेसेवि पुण्णो दु ॥७१३॥

अर्थ- तिर्यच पाँच प्रकारके होते हैं- सामान्य, पंचेन्द्रिय, पर्याप्त, योनिमती, अपर्याप्त। इनमेंसे अंतके अपर्याप्तको छोड़कर शेष चार प्रकारके तिर्यचोंके आदिके पाँच गुणस्थान होते हैं जिनमेंसे मिथ्यात्व, सासादन, असंयत इन गुणस्थानों में तीन-तीन आलाप होते हैं। इसमें भी इतनी विशेषता और है कि योनिमती तिर्यचके असंयत गुणस्थानमें एक पर्याप्त आलाप ही हाता है क्योंकि बद्धायुष्क भी सम्यक्दृष्टि स्त्री वेदके साथ तथा प्रथम नरकके सिवाय अन्यत्र नपुंसक वेदके साथ भी जन्म ग्रहण नहीं करता। शेष मिश्र और देशसंयतमें पर्याप्त आलाप ही होता है।

Trans. 713. In the two, wrong belief, and downfall and in the vowelless stages of 4 kinds of sub-humans (i. e. general, 5 sensed, developable and females) there are all the 3 distinctions. But in the vowelless stage of the female sub-humans, (there is) only (one distinction of developable). And in the remaining (i. e. mixed and partial vow stage), also (there is only one distinction of) developable.

तेरिच्छियलद्धियपज्जत्ते एक्को अपुण्ण आलावो ।
मूलोघं मणुसतिये मणुसिणि अयदमिह पज्जत्तो ॥७१४॥

अर्थ- लब्ध्यपर्याप्त तिर्यचोंके एक अपर्याप्त ही आलाप होता है। मनुष्यके चार भेद हैं- सामान्य, पर्याप्त, योनिमत्, अपर्याप्त। इनमेंसे आदिके तीन मनुष्योंके चौदह गुणस्थान होते हैं। उनमें गुणस्थान सामान्यके समान ही आलाप होते हैं। विशेषता इतनी है कि असंयत गुणस्थानवर्ती मानुषीके एक पर्याप्त आलाप ही होता है।

Trans. 714. In the completely un-developable sub-humans (there is only) one distinction, non-developable. In the 3 humans (i. e. general, developable and feminine, the distinctions are) according to the corresponding spiritual stages, but in the vowelless stage among women (there is only) developable

मणुसिणि पमत्तविरदे आहारदुगं तु णत्थि णियमेण ।

अवगदवेदे मणुसिणि सण्णा भूदगदिमासेज्ज ॥७१५॥

अर्थ- जो द्रव्यसे पुरुष है किन्तु भावकी अपेक्षा स्त्री है ऐसे प्रमत्तविरत जीवके आहारक अंगोपांग नामकर्मका उदय नियमसे नहीं होता। वेदरहित अनिवृत्तिकरण गुणस्थान वाले भाव स्त्री मनुष्यके मैथुन संज्ञा कही है। वह भूत गति न्यायकी अपेक्षासे कही है।

Trans. 715. In a soul (i. e. a saint) with feminine inclination in the imperfect vow stage necessarily there non-exist (the vibrations of) the two assimilative (Āhāraka, and assimilative-mixed-with physical Āhāraka Mishra). And in a soul with feminine inclination in sexless part of the 9th stage, (sex) inclination is mentioned from the point of view of the past (i.e. figurative or Naigama-naya point of view).

णरलद्धिअपज्जत्ते एक्को दु अपुण्णो दु आलावो ।

लेस्साभेदविभिण्णा सत्त वियप्पा सुरद्धाणा ॥७१६॥

अर्थ- मनुष्यगतिमें जो लब्ध्यपर्याप्तक हैं उनके एक अपर्याप्त ही आलाप होता है। देवगतिमें लेश्या भेदकी अपेक्षासे सात विकल्प होते हैं।

Trans. 716. In the completely undevelopable human (there is) only one distinction of undevelopable. From the point of view of distinctions of thought-paints, there are seven divisions among the celestials.

सव्वसुराणं ओघे मिच्छदुगे अविरदे य तिणेव ।

णवरि य भवणतिकप्पित्थीणं च य अविरदे पुण्णो ॥७१७॥

अर्थ- समस्त देवोंके चार गुणस्थान सम्भव हैं। उनमें से मिथ्यात्व, सासादन, अविरत गुणस्थानमें तीन-तीन आलाप होते हैं किन्तु विशेषता इतनी है कि सभी भवनत्रिकों अर्थात् भवन व्यन्तर, ज्योतिष्क देव और देवी तथा कल्पवासिनी देवी इनके असंयत गुणस्थानमें एक पर्याप्त ही आलाप होता है।

Trans. 717. In the two wrong-belief (and downfall), and the vowless stages of all) the celestials, (there are all) the three (distinctions of general, developable and non-developable). But in the vowless stage of the 3, residentials, (peripatetics and stellars) and the feminine heavenly beings (there is only the distinction of) developable.

मिस्से पुण्णालावो अणुदिसाणुत्तरा हु ते सम्मा ।

अविरद तिण्णालावा अणुदिसाणुत्तरे होति ॥७१८॥

अर्थ- नव त्रैवेयक पर्यन्त सामान्यसे समस्त देवोंके मिश्र गुणस्थानमें एक पर्याप्त ही आलाप होता है इसके ऊपर अनुदिश और अनुत्तर विमानवासी सब देव सम्यक्दृष्टि ही होते हैं।

Trans. 718. In the mixed stage (in celestial up to the last graiveyaka, there is only) the distinction of developable. All (the souls) in the (9) Anudiśas and (5) Anuttaras (are) right believers. In the vowless stage in the Anudiśas and Annuttaras (there are all) the three distinctions.

बादरसुहुमेइंदिय वित्तिचउरिंदिय असण्णिजीवाणं ।

ओघे पुण्णे तिण्ण य अपुण्णगे पुण अपुण्णो दु ॥७१९॥

अर्थ- एकेन्द्रिय- बादर सूक्ष्म, द्वीन्द्रिय, त्रीन्द्रिय, चतुरिन्द्रिय, असंज्ञी पंचेन्द्रिय जीवोंमेंसे जिनके पर्याप्ति नामकर्मका उदय है उनके तीन आलाप होते हैं और जिनके अपर्याप्ति नामकर्मका उदय रहता है उनके लब्ध्यपर्याप्त ही आलाप होता है।

Trans. 719. In (the wrong belief) stage of gross and fine one-sensed, 2, 3, 4 sensed and irrational 5 sensed souls, all the three (if they are) developable, and (only one) non-developable, (if they are) undevelopable.

सण्णी ओघे मिच्छे गुणपडिवण्णे य मूलआलावा ।
लद्धियपुण्णे एक्कोऽपज्जत्तो होदि आलाओ ॥७२०॥

अर्थ- संज्ञी जीवके जितने गुणस्थान होते हैं उनमेंसे मिथ्यादृष्टि या विशेष गुणस्थानको प्राप्त होने वालेके मूलके समानही आलाप समझने चाहिए और लब्ध्यपर्याप्तक संज्ञीके एक अपर्याप्त ही आलाप होता है।

Trans. 720. In the wrong belief or any higher stage of rationals, the distinctions are according to the corresponding stage. In the completely undevelopable, (there is only) one distinction of undevelopable.

भूआउतेउवाऊ णिच्चचदुग्गदिणिगोदगे तिण्णि ।
ताणं थूलिदरेसु वि पत्तेगे तद्दुभेदेवि ॥७२१॥
तसजीवाणं ओघे मिच्छादि गुणे वि ओघ आलाओ ।
लद्धिअपुण्णे एक्कोऽपज्जत्तो होदि आलाओ ॥७२२॥

अर्थ- पृथिवी, जल, अग्नि, वायु नित्यनिगोद चतुर्गति निगोद इनके स्थूल और सूक्ष्म भेदोंमें तथा प्रत्येकके सप्रतिष्ठित, अप्रतिष्ठित इन दो भेदोंमें भी तीन-तीन आलाप होते हैं। त्रसजीवोंमें सामान्यतया चौदह गुणस्थान होते हैं। इनके आलापोंमें भी कुछ विशेषता नहीं है। गुणस्थान सामान्यके जिस तरह आलाप बताये हैं उसी तरह यहाँ भी समझने चाहिये। पृथ्वीसे लेकर त्रस पर्यंत जितने भेद हैं उनमें जो लब्ध पर्याप्त हैं उनके एक लब्ध्यपर्याप्त ही आलाप होता है।

Trans. 721-22. In the gross and the other (fine) earth, water, fire, air bodied, ever-common (Nitya Nigoda) and the four-condition-common (Chatur-gati Nigoda, vegetables), and also in the two kinds (host and non-host Sapratiśṭhita and Apratiśṭhita), of individual (Pratyeka vegetables, there are all) the three distinctions. And in the wrong belief and other stages of the mobile souls, the distinctions correspond to their different stages. In the completely undevelopable (embodiments, there) is only one distinction of undevelopable.

एक्कारसजोगाणं पुण्णगदाणं सपुण्ण आलाओ ।
मिस्सचउक्कस्स पुणो सगएक्क अपुण्ण आलाओ ॥७२३॥

अर्थ- चार मनोयोग, चार वचनयोग, सात काययोग इन पन्द्रह योगोंमेंसे औदारिक मिश्र, वैक्रियिकमिश्र, आहारकमिश्र, कार्माण इन चार योगोंको छोड़कर शेष ग्यारह योगोंमें अपना-अपना एक पर्याप्त आलाप होता है और शेष उक्त चार योगोंमें अपना-अपना एक अपर्याप्त आलाप होता ही है।

Trans. 723. In the eleven vibrations (i. e., all the 15 yogas except the three mixed and the Karmic) of developables (there is only) one distinction of their respective-developables (there is only) one distinction of their respective-developableness. And in the 4, i. e., (3) mixed (and one Karmic there is) only one distinction of their respective undevelopableness.

वेदादाहारोत्ति य सगुणद्वाणाणमोघ आलाओ ।
णवरि य संढित्थीणं णत्थि दु आहारगाण दुगं ॥७२४॥

७२४- वेदमार्गणासे लेकर आहारमार्गणापर्यंत दशमार्गणाओंमें अपने-अपने गुणस्थानके समान आलाप होते हैं। विशेषता इतनी है कि जो भावनपुंसक या भावस्त्रीवेदी हैं उनके आहारक काययोग और आहारक मिश्रकाययोग नहीं होता?

Trans. 724. From the sex to the assimilation (quest), the distinctions are according to their respective stages. But in souls with common and feminine sex inclination (there) are not two assimilative body (and assimilative-mixed-with-physical body vibrations).

गुणजीवापज्जत्ति पाणा सण्णा गइंदिया काया ।
जोगा वेदकसाया णाणजमा दंसणा लेस्सा ॥७२५॥

भवासम्पत्ता वि य सण्णी आहारगा य उवजोगा ।

जोग्गा पखुविदव्वा ओघादेसेसु समुदायं ।।७२६।।

अर्थ- चौदह गुणस्थान, चौदह जीवसमास, छह पर्याप्ति, दश प्राण, चार संज्ञा, चार गति, पाँच इन्द्रिय, छह काय, पन्द्रह योग, तीन वेद, चार कषाय, आठ ज्ञान, सात संयम, चार दर्शन, छह लेश्या, भव्यत्व, अभव्यत्व, छह प्रकारके सम्यक्त्व, संज्ञित्व, असंज्ञित्व, आहारक, अनाहारक, बारह प्रकारका उपयोग इन सबका यथायोग्य गुणस्थान और मार्गणास्थानोंमें निरूपण करना चाहिये।

Trans. 725-26. (14) spiritual stages, (14) soul-classes, (6) developable, (10) vitalities, (4) impulses, (4) conditions of existence, (5) senses, (6) embodiments, (15) Vibrations, (3) sex-inclinations, (4) passions, (8) knowledges, (7) controls, (4) conations, (6) thought-paints, (2) capacities of liberation, (6) right-beliefs, and (2) rationals, (2) assimilations, and (12) attentions-as spiritual stages and soul-quests.

ओघे आदेसे वा सण्णीपज्जंतगा हवे जत्थ ।

तत्थ य उणवीसंता इगिवित्तिगुणिदा हवे ठाणा ।।७२७।।

अर्थ- सामान्य (गुणस्थान) या विशेषस्थान (मार्गणास्थान) में संज्ञीपंचेन्द्रिय पर्यन्त मूलजीवसमासोंका जहाँ निरूपण किया है वहाँ उत्तर जीवसमास स्थानके भेद उन्नीस पर्यन्त होते हैं और इनका भी एक दो तीनके साथ गुणा करनेसे क्रमसे उन्नीस, अड़तीस और सत्तावन जीवसमासके भेद होते हैं।

Trans. 727. In the stages and quests, in what are (called as the 14 soul-classes) up to rationals, there can be upto (19) multiplied by one, two and three (i. e., 19, 38 and 57) sub-classes respectively. (See chapter on soul-classes).

वीरमुहकमलणिग्गय सयलसुयग्गहणपयडणसमत्थं ।

णमिऊणगोयममहं सिद्धंतालावमणुवोच्छं ।।७२८।।

अर्थ- अन्तिम तीर्थंकर श्रीवर्धमानस्वामीके मुखकमलसे निर्गत समस्त श्रुतसिद्धान्तके ग्रहण करने और प्रकट करनेमें समर्थ श्री गौतमस्वामीको नमस्कार करके मैं उस सिद्धांतालापको कहूँगा जो कि वीर भगवानके मुखकमलसे उपदिष्ट श्रुतमें वर्णित समस्त पदार्थोंके प्रकट करनेमें समर्थ हैं।

Trans. 728. Having bowed to Gautama who was capable of understanding and proclaiming all the scriptures as issued from the lotus-mouth of (the last Tirthaṅkara) Vira, I shall describe the distinction of the Jain Canon (Siddhānta).

मणपज्जवपरिहारो पढमुवसम्पत्तदोणिण आहारा ।

एदेसु एक्कपगदे णत्थि त्ति असेसयं जाणे ।।७२९।।

अर्थ- मनःपर्ययज्ञान, परिहारविशुद्धि संयम, प्रथमोपशम सम्यक्त्व और आहारक द्वय इनमेंसे किसी भी एक भेदके होने पर शेष भेद नहीं होते, ऐसा जानना चाहिए।

Trans. 729. In (case of) existence of any fo the following four, (1) mental knowledge, (2) absolute-non-injury-control (Parihāra-viśuddhi Saṁnyama), (3) First subsidential right-belief, and (4) the two, assimilative body and assimilative-mixed-with physical-body-vibration, know that all the others cannot be found.

विदियुवसम सम्पत्तं सेढीदोदिणिण अविरदादीसु ।

सगसगलेस्सामरिदे देवअपज्जत्तगेव हवे ।।७३०।।

अर्थ- उपशमश्रेणीसे उतरकर अविरतादिक गुणस्थानोंको प्राप्त करने वालोंमेंसे जो अपनी-अपनी लेश्याके अनुसार मरण करके देवपर्यायको प्राप्त करता है उसीके अपर्याप्त अवस्थामें द्वितीयोपशम सम्यक्त्व होता है।

Trans. 730. Second subsidential-right-belief is found in non-developable celestial beings only (when they are born). after dying with their respective thought-paints, after having fallen down to vowless and other (stages, from the (subsidential), ladder.

सिद्धाणं सिद्धगई केवलणाणं च दंसणं खयियं ।
सम्मत्तमणाहारं उवजोगाणक्कमपउत्ती ।।७३१।।

अर्थ- सिद्ध जीवोंके सिद्धगति केवलज्ञान, क्षायिकदर्शन, क्षायिकसम्यक्त्व अनाहार और उपयोगकी अक्रम प्रवृत्ति होती है।

Trans. 731. In the liberated souls, the condition of existence (is) liberation, (knowledge is) perfect knowledge, (conation is perfect) conation, (right-belief is) destructive or purified right-belief, assimilation (of any Karmic molecule) does not exist, and the activity of attentions is (perpetual and) simultaneous.

गुणजीवठाणरहिया सण्णा पज्जति पाणपरिहीणा ।
सेसणवमग्गणूणा सिद्धा सुद्धा सदा होंति ।।७३२।।

अर्थ- सिद्ध परमेष्ठी, चौदह गुणस्थान, चौदह जीवसमास, चार संज्ञा, छह पर्याप्ति, दश प्राण इनसे रहित होते हैं तथा इनके सिद्धगति, ज्ञान, दर्शन, सम्यक्त्व और अनाहारको छोड़कर शेष नव मार्गणा नहीं पाई जाती और ये सिद्ध तथा शुद्ध ही रहते हैं क्योंकि मुक्ति प्राप्तिके बाद पुनः कर्मका बन्ध नहीं होता।

Trans. 732. Free from (the distinctions of) spiritual stages and soul-classes, devoid of impulses, developableness, and vitalities, beyond the scope of the remaining 9 quests (i. e., all except the five mentioned in gatha 731).-The liberated souls remain always pure (and perfect souls).

णिकखेवे एयत्थे णयप्पमाणे णिरुत्ति अणियोगे ।
मग्गइ वीसं भेयं सो जाणइ अप्पसब्बावं ।।७३३।।

अर्थ- जो भव्य उक्त गुणस्थानादिक बीस भेदोंको निक्षेप एकार्थ नय प्रमाण निरुक्ति अनुयोग आदिके द्वारा जान लेता है वही आत्मसद्भावको समझता है।

Trans. 733. He who investigates these twenty distinctions by means of (4) aspects (Nikṣēpa), by their (various) synonyms (Ekārtha), from different points of view (Naya), by means or measure of right knowledge (Pārmāṇa) by etymology (Nirukti), and by questions (Anuyoga), acquires knowledge of the true nature of soul.

अज्जज्जसेणगुण गणसमूहसंधारि अजियसेणगुरु ।
भुवणगुरु जस्सगुरु सो राओ गोम्मटो जयतु ।।७३४।।

अर्थ- श्री आर्यसेन आचार्यके अनेक गुणगणको धारण करने वाले और तीन लोकके गुरु श्री अजितसेन आचार्य जिसके गुरु है वह श्री गोम्मट (चामुण्डराय) राजा जयवन्त रहें।

Trans. 734. May victory be to Raja Gommaṭa (or Cāmundarāi) whose teacher, the preceptor Ajitasena, is the teacher of the world, who has adopted the many qualities and the saintly order of the preceptor. (Āchārya) Āryasena.

इत्यलं - The End

NOTE ON THE PRESENT ENGLISH TRANSLATION

The English translation of the Gommatasāra (Jīva Kāṇḍa) was accomplished by J.L. Jaini, the Chief Justice, Indore, who was assisted by Br. Sital Prasad. It was published by Pandit Ajit Prasad Jain, Ajitashram, Lucknow. This publication along with the edited work and commentary, was under a series, "The Sacred Books of the Jainas", volume V, as Gommatasāra, Jīva-Kāṇḍa, (The Soul). The series was founded by Kumar Devendra Prasad Jain in 1917. Shri J. L. Jaini began this work in the rainy season of 1927, when Br. Sital Prasad stayed with him for helping him during this publication. Shri J. L. Jaini was not alive to see his work duly printed and bound. He had also translated the Karma-Kāṇḍa part I of it. The publication work was then completed by Shri Ajit Prasad Jain.

The reader may be made aware of our first series, "The Exact Sciences in the Karma Antiquity" in which we had followed the Glossary published in the, "Labdhisāra of Nemicandra Siddhantacakravartī", volume I, being a part of our INSA Project, operated at the instance of the Indian National Science Academy, New-Delhi, from 1984 to 1987.

In this translation, however, we feel proud and happy in informing the readers, that the vocabulary adopted by the translator, Shri J. L. Jaini, was from the Jaina Gem Dictionary which he might have prepared before commencing this work.

We have changed the dicritical marks, however, and adopted the international convention prevalent at present for the convenience of the western and eastern scholars, specifically those, who are working on the history of science in India.

It was thought by us that this translation must be kept in tact as it is, in its original form, but for the dicritical marks, so that it may carry over the importance of its role in the historical development and social awakening towards the profound mathematico-symbolic material contents of the work in its commentaries.

Thus we have made use of the most arduous task of the English translation by Shri J. L. Jaini and Br. Sital Prasad, of this text, for which we acknowledge our most sincere gratitude, both, to the translators as well as the publisher.

The Authors

JIVAKANDA

PRELUDE TO GAUGE SYMBOLISM (ARTHA-SAMDRṢṬI) OF THE LABDHISĀRA PART - I

INTRODUCTION

For understanding the symbolism of the Labdhisāra, one has first to study the symbolism adopted in the gommaṣāra. As such it will be beneficial to introduce the readers with the main stream of symbolic manipulation in the Gommaṣāra. This will be based on the Artha-Samdrṣṭi chapter of the Gommaṣāra commentary, the Samyak-Jñāna Candrikā, composed by Paṇḍita Todaramala of Jaipur (c. 1720-1767 A.D.)

This chapter contains about 308 pages in Dhūḍhārī language, incorporated in the Gommaṣāra published by Gandhi Haribhai Deokaran Jaina Granthmala, Calcutta (c.1919). The Artha-Samdrṣṭi or gauge-symbolism is defined in this as the measure etc., of proposed fluent (dravya), area (kṣetra), time (kāla) and phase (bhāva). The symbolism of the gauge (artha) is to be known as gauge-symbolism (Artha-Samdrṣṭi).

Todaramala expressed that there was no one to instruct him regarding the symbolism, hence he tried to elucidate the same as far as possible, and that any mistake if committed may kindly be corrected. [ASG p.2] A number is sometimes denoted through the name of a category or syllable- gauge (padārtha). The name works as a notation (sahanānī) of some number. For example, vidhu denotes the number one, because the observable moon is one. Similarly, nidhi denotes number nine. This appears to be a representation system, and has been found to be used in various texts of India.¹

Alphabets have also been used to represent numerals and notational numbers. This is known as the kaṭpayādi system.² The formula is as follows:

Kaṭapayapurastha varṇair nava nava pañcāṣṭakalpitaḥ kramaśah /
svarajñāna śūnyarṇ saṅkhāmātroparimāksaram tyājyam ||

Thus the vowels, a, ā etc., ña, na, express zero whereas the rest alphabets represent the numerals as follows:

1.	ka	ṭ	pa	ya	1
2.	kha	ṭha	pha	ra	2
3.	ga	ḍa	ba	la	3
4.	gha	ḍha	bha	va	4
5.	ña	ṇa	ma	śa	5
6.	ca	ta		ṣa	6
7.	cha	tha		sa	7
8.	ja	da		ha	8
9.	jha	dha			9

1. For example in the Dhavalā text, vol. 3 p. 55, verses 1, 2, 45, 71)

2. cf. Datta and Singha 1962 p. 69 Bag (ORS-16) pp 35-36

The upper, lower or side parts of the Nāgarī characters carry no implication in this regard. In the Gommaṭasāra commentary ¹ this formula has been used to denote numbers of various syllables in the Candraprajñapti, Sūryaprajñapti, etc. For example the Candraprajñapti contains "gatanamanonanam" or 3605000 syllables, and the Sūryaprajñapti contains maṇagaṃnonanam" or 503000 syllables.

The symbol of etcetra or soforth (prabhṛti) has been like = , i.e., two horizontal lines, one above the other.

thus,

jaghanya (minimal)	is denoted by	ja =
65536 or 2^{2^4} (paṇṇaṭṭhi)	is denoted by	65 =
2^{2^5} (vādāla)	is denoted by	42 =
2^{2^6} (ekaṭṭhi)	is denoted by	18 =

Notation for filling up the gaps is given by placing a few small circles [points] between the first and the last term: for example,

the terms of a sequence of karmic nisusus (niṣekas) of an instant-effective-bond (samayaprabaddha), in numeral symbolism, is given by

9
0
0
0
0
512

Where 9 and 512 are first and last terms of a collection of six arithmetical progressions with different common differences.²

There are abbreviations for denoting a number or its characteristic through the first alphabet of the words :

lakṣa	(lac)	la
koṭi	(crore)	ko
jaghanya	(minimal)	ja
jñāna	(knowledge)	jñā

Repetition is denoted by writing 2 on the right hand side of the abbreviation :

koṭa koṭi	(crore squared)	ko 2
dvitīya mūla	(second square-root)	mū 2
antaḥkoṭakoṭi	(inter crore-square)	aṃ ko 2

ASG.3

In order to express as to how many zeros are to be written after a number the following style is seen :

65 0 for writing 65000.
 3

Regarding the post-universal (alaukika) mathematics (gaṇita), as denominated by Ṭoḍaramala, the symbols for the number measure (saṃkhyā māna) and the simile measure (upamā māna) are as follows

¹. cf. KV and JTP in GJK vol. 1 p. 603 , et seq.

². cf. GJK vol. 1 commentries KV and JTP on p. 401.

- ३ for numerate or numerable (saṁkhyāta)¹
- ० for innumerate or innumerable (asaṁkhyāta)²
- kh for infinite or endless (ananta) .
This in Devanāgarī is written as ख
- 2 for minimal numerate (jaghanya saṁkhyāta) .

This is a numerical symbol for २, in Devanāgarī. The symbols of middle [intermediate] numerable (madhya-saṁkhyāta) are of various types.

15 This is a numerical symbol for maximal numerate (utkrṣṭa-saṁkhyāta) (fifteen in Devanāgarī which is १५. Actually this is minimal- proximate innumerate (jaghanya parīta asaṁkhyāta) as reduced by unity. Neighbour may also replace proximate for parīta.

16 This is the symbol for minimal proximate-innumerate, in Devanāgarī notation १६, as a numerical one. The symbols for middle-proximate-innumerate are of various types.

This symbol in Devanāgarī is १ $\frac{1}{2}$. It stands for maximal proximate-innumerate. The subtraction by unity is shown as 1 $\frac{1}{2}$. Here $\frac{1}{2}$ appears to have been derived from रि which stands for रिण (riṇa) or ऋण (ṛṇa)³. The 2 below 1 $\frac{1}{2}$ stands for the minimal-yoked- innumerate, as a numerical symbol. The numerical symbol 2 also stands for a trail (āvalī) which a numerical content of minimal yoked-innumerate of instants. Yoked (yukta) means joined with or arranged with.

Now the symbols for middle yoked-innumerate are of various types.

1 $\frac{1}{2}$ In Devanāgarī this has been written as १ $\frac{1}{2}$
4 ४.

This denotes maximal yoked innumerate. The numerical symbol for minimal innumerate-innumerate is 4 or ४ in devanāgarī. From 4 has been subtracted unity to denote 1 $\frac{1}{2}$
4

as the maximal yoked-innumerate. The trail-squared (pratarāvalī) denoted by 4 as it is square of 2 or trail (āvalī), or square of the minimal yoked-innumerate (jaghanya yukta asaṁkhyāta).

Among the various types of middle-innumerate-innumerate the symbol of trail-cubed (ghanāvalī) is the numeral 8 or ८ in Devanāgarī. This is the cube of the trail (āvalī).

ASG p.4

1 $\frac{1}{2}$

256 This denotes 256 as reduced by unity, i.e., 255 which stands for maximal innumerate-innumerate. In Devanāgarī we have १ $\frac{1}{2}$ or २५५ .
२५६

Symbols for middle proximate infinity are of various types.

1 $\frac{1}{2}$

१ $\frac{1}{2}$

ja jn a This is transcribed from ज जु अ which stands for miximal proximate infinity (utkrṣṭa parīta ananta). This is equivalent to minimal yoked-infinity (jaghanya yukta ananta) as reduced by one.

ja ju a This is the symbol for minimal yoked infinity (jaghanya yukta ananta), written as

ज जु अ in Devanāgarī. These Three alphabetical notations are the initial letters of jaghanya, yukta and ananta, in Prakrit.

1. This appears to be a symbol developed from the Brāhmī script for sa when a circle for am or an might have been added in it. 2. Similarly ० also appears to have been developed from a of the Brāhmī script. 3. Compare $\frac{1}{2}$ with the sign for ī in ॐ which reads vī in the inscription badly (district Ajmera at Rajputana museum, Ajmera), considered to be of 443 B.C.

ASG p.5 The symbols for middle yoked infinite are of various types.

1 ८

ja ju a va This stands for minimal infinite-infinite (jaghanya ananta ananta), written as ८ ८ ८ ८ in devanāgarī. This is square of **ja ju a** or square of minimal yoked-infinite, hence the notation for square is **va** which stands for *varga* (square).

16 : Among the types of the middle infinite-infinite (madhyam ananta-ananta) there is included the symbol 16 representing the cardinal of the set of all living-beings (jīva rāṣi) which in Devanāgarī written as १६.

13 : The set of all mundane (sansārī) living-beings has the numerical symbol 13 or १३ in Devanāgarī; hence 3 or ३ stands for the cardinal number of the set of the accomplished living-beings (siddha rāṣi).

16 kha This symbol, १६ ख, in Devanāgarī, denotes the set of all material particles (pudgala rāṣi). Here **kha** or ख denotes an infinite multiplier or a multiple operator, which multiplies the set 16 of all living-beings. Here is the concept of constructing an infinity greater than an infinity. It therefore seems that if 16 lies in a horizontal or a vertical line (row or column) then 16 kha should denote a Cantor's diagonal set of elements. Comparability-between two infinite sets is thus of historical importance. Their comparability is made in a dyadic sequence through transfinite sequences in the Trilokasāra.¹

16 kha kha This symbol represents the set of all time instants, in Devanāgarī १६ ख ख, which is infinite times or kha times the set of all ultimate-material particles.

16 kha kha kha This represent the set of all points of space and is infinite times the preceding, denoted as १६ ख ख ख in Devanāgarī.

ke mū 1 This notation denotes the first square root of omniscience, के मू १ in Devanāgarī **ke** stands for omniscience (kevalajñāna) which is the set of indivisible-corresponding-sections (avibhāga-praticcheda) similarly **ke mū 2** will denote the second square-root or the $[ke mū 1]^{1/2}$. Thus the operations valid for finite sets have been extended with validity for transfinite sets as well in the school as in the modern mathematical thought inaugurated by Cantor. Such concepts are not available in philosophical thoughts.

The symbols for middle infinite-infinite are of various types.

ke This symbol stands for maximal infinite-infinite (utkrṣṭa anantānanta), the supremum set of omniscience, denoted by के in Devanāgarī, including or containing all types of sets in existence as well as in abstraction or thoughts as it represents the supremum set of all knowledge.

Thus ends the important topics of the number measure which contains above symbolism in brief.

1. Cf. Jain L.C.(1977) pp. 57-75, The dyadic sequence is $F_n = 2^{2^n} + 1$, where n is the number of terms. The order of the set of all ultimate particles of matter in terms of n after the set of all living beings arises after infinite infinite which stands for middle infinite infinite as an exponent of 2^2 some way resembling that of Cantor's concept of constructing a greater infinity.

SYMBOLISM FOR SIMILE MEASURE

pa This symbol denotes set of instants in a pit (palya) time measure. Palya, denoted in Devanāgarī as प has been described to be of three types and it appears to stand for the addhāpalya.¹ This is an alphabetical symbol. It also correlates the set of points in a linear finger (sūcyaṅgula) width. It is a construction-set of instants, innumerate in number-measure.

sā This, in Devanāgarī सा, appears to have been derived from Brāhmī alphabet for sā. It denotes a set of instants in an ocean (sāgara) time-measure. This is also an alphabetical symbol, derived from sāgara, through Brāhmī scripts or later scripts. It is an initial letter of the word sāgara. This is also of three types and has been constructed as a set of instant, innumerate in number-measure.

2 The symbol 2, which in Devanāgarī is written as २ stands for a set of points contained in a finger linear-width (sūcyaṅgula), sūci meaning linear and aṅgula meaning finger. It also represents a unit of length, and its construction through a set of points, each point denoting space occupied by an ultimate particle, is a principle-theoretic approach, in so far as postulation of a point-dimensions are concerned.

It also seems strange how 2 also represents a trail (āvalī) a set of instants. But if one could draw attention to formation of ā, aṅ and sa in Brāhmī scripts, one could have easily distinguished the setting in formation of the symbol. A difference in formation appears to have been neglected, in course of time due to the fact that a numerical symbol might have been preferred to denote either of them and distinguished in accordance with the usage of the symbol in mathematical contexts.

4 The symbol 4, in Devanāgarī ४, represents a set of points in an areal finger (pratara aṅgula), where pratara means area of an aṅgula squared, and this is a product set denoted as cartesian product in modern mathematics. The symbol 4 is the square of 2 which not only represents an aṅgula but also an āvalī. It may be noted that symbol of aṅgula expresses space and that of āvalī expresses time, and even the square of an aṅgula and that of an āvalī have also not been distinguished.

6 This symbol, in Devanāgarī ६, represents a set of point in a finger-cubed (ghana-aṅgula). It may be noted that cube of a trail (āvalī) was denoted by 8 or ८ in Devanāgarī, but now the cube of 2 is shown to be 6, or ६ in Devanāgarī. It therefore seems that as ā and aṅ appeared to be common in a, carried the symbol 2 or २, but later distinguished for cubed form as 6 and 8 or ६ and ८.

The origin should have been ≡, but later on ३, ६, ८, forms got developed into various types of symbols, as we shall see the origin in the world line below, starting as a dash (-).

— A single horizontal line or dash represents a length of world-line and at the same time it represent a set of space-point in the length of a world-line (jaga śreṇī) or seven ropes (rajjus). The symbol is Brāhmī, as it appears, and may be said to belong to 2nd century B.C. or even earlier than the period of Nānāghāṭa inscriptions. This may also be called a universe-line, for loka and jaga here carry the same implication, and context is cosmographical. This measures the contents in terms of space-points, and elucidates the fluent measure as also the earlier simile measures. Here is also construction of an innumerate quantity or set, used for a simile measure of sets of various origin, existence, contruction and so on.

= This symbol for two horizontal lines, one above the other represents a product set of points on two world lines. It is called universe-line-squared (jagapratara). It is square of a world-line or a universe-line, as a letlice formation. Not only for areal measure, but for content also in terms of space-points, this has been utilized as in application of areas,¹ as also the earlier simile measures.

≡ Similarly, the three horizontal bars one above the other represent a product set of points in a cube of world line (ghana loka) or universe-line-cubed. It is a set of such points measuring again the number of fluents (dravya) existant in a certain state or station. The space-point is the same, called without dimensions, analogous to an ultimate particle, without dimensions [i.e., no beginning (ādi), no end (anta), no middle (madhya)].

1. Cf. GJK. vol. 1, pp. 236 et. seq. Cf. also TPG. Cf. ibid., pp. 236 et. seq. Cf. also TPG. 2. Jain L.C. (1958) (1968)

7 This is a symbol for a rāju (rope), a cosmological measure, in Devanāgarī written as ७, where the horizontal bar denotes the universe line, and 7 denote the number which divides the universe-line. It denotes a divisor or fraction in this way. It may also denote a quotient set, of space-points in the manner of set theory.

=
49 This symbol stands for rope-squared (rajju-pratara), or a product set of two quotient-sets. Naturally it is squared and represents a lattice formation in terms of space-points or pradeśas, just as pit (palya) represents a set of time-points or instants or samayas but without higher dimension than the mono-dimansion. In Devanāgarī this is written as ४९, where 49 is 7^2 or 7×7 .

=
343 This represents rope-cubed (rajju-ghana), in Devanāgarī this is written as ३४३ in the text. It is also a product set of three quotient sets : $(\overline{7}) (\overline{7}) (\overline{7})$. It is used as a simile measure of fluents etc., contained in a certain state or location or time.

che This represents logarithm of pit (palya) to the base two, or in Devanāgarī as ३, from ardhaccheda word. This is also a set of points, but the set-theoretic concept for logarithm is sought here, through process of bisections of a sets of time-points or instants or samayas. This is alphabetical. This represents logarithm of logarithm of pit (palya) to the base two, or written in Devanāgarī as ३. This ३ is an alphabetical symbol, and represents a set through a set theoretic concept. Thus we can write this as $\{\log_2 [\log_2 (\text{palya})]\}$

३
che This symbol denotes logarithm of ocean (sāgara) to the base two (ardhaccheda of sāgara), in Devanāgarī it has been denoted as ३. It is a set of instants.

ASG p.6 It represents that $\log_2 (\text{sāgara}) = \log_2 (\text{palya}) + ३$, ie. logarithm of sāgara exceed by logarithm of palya to be base two exceed by a number which is numerate (saṁkhyāka). As every type of sāgara is produced by multiplying every type of palya by $10 (\text{crore})^2$, hence the above symbol stands for logarithm of this quantity as some numerate quantity.

In so far as the vargaśalākāś or log of log of sāgara are concerned, Tōḍaramala states that there are no vargaśalākāś of sāgara. But this is mistaken. One could calculate \log_2 of $[\log_2 (\text{palya}) + ३]$, although this may involve a bit of difficulty.

che che This, in Devanāgarī ३ ३, represents set of points in $\log_2 (\text{palya}) \log_2 (\text{palya})$, or this represents set of points in $\log_2 (\text{sūcyāṅgula})$. This is a consequence of the relation given in the Tiloyapaṇṇattī,¹ between the āṅgula and palya:

$$\text{sūcyāṅgula} = [\text{palya}]^{\log_2 (\text{palya})}$$

Hence the \log_2 operated both sides gives the relation

$$\log_2 (\text{sūcyāṅgula}) = \log_2 (\text{palya}) [\log_2 (\text{palya})]$$

This is the relation between sets of space points and time instants or pradeśas of sūcyāṅgula and samayas of palya. It is fundamental, as it connects an existential set with a constructive set, and gives the process to know an existential set through a construction set.

va 2 This symbol represents logarithm of logarithm of sūcyāṅgula to the base two. In Devanāgarī this has been written as o 2 or $2 \log_2 \log_2 (\text{palya})$. This relation is simple to calculate

1. Cf. TP vol. 1, v. 1-131. 2. Cf. Jain L.C. 1977, 57-75.

because

$$\begin{aligned}\log_2 (\text{sūcyaṅgula}) &= \log_2 (\text{palya}) \log_2 (\text{palya}) \\ \text{or } \log_2 \log_2 (\text{sūcyaṅgula}) &= \log_2 \log_2 (\text{palya}) + \log_2 \log_2 (\text{palya}) = 2 \log_2 \log_2 (\text{palya})\end{aligned}$$

Here is the relation between the point-set and the instant-set, the former being existential and the latter one being constructional; further the logarithm has been useful to connect their forms in the dyadic sequences,² in a separate way.

che che 2 This symbol represents the set of points (pradeśas) contained in logarithm of (aṅgula)². In Devanāgarī this has been expressed as ॐ ॐ २. Here (aṅgula)² is pratarāṅgula.

From the above

$$\begin{aligned}\logarithm_2 (\text{aṅgula})^2 &= 2 \log_2 (\text{aṅgula}) \\ &= 2 \log_2 (\text{palya}) \log_2 (\text{palya})\end{aligned}$$

The symbol ॐ resemble of some extent the Brāhmī equivalent. ॐ But the transcription date could only be found from older and oldest manuscripts as inscriptions do not carry any concept-of logarithms. However, if the divergent sequences are earlier to Nemicandra Siddhānta cakravartī who mentioned about the “Vṛhaddhārā parikarma”, then the concept of logarithms and their symbols ought to have been earlier at least by a few hundred years, than the period of compilation of the “Vṛhaddhārā parikarma” which is now not available. Similar opinion could be given about the ॐ which in Brāhmī script is ॐ.

1-

१ -

va 2 This symbol, written in Devanāgarī as ॐ २ represents the set of points in the logarithm of logarithm of (aṅgula)². This is vargaśālākās of the pratarāṅgula. Here 1- means that unity is to be added to va 2. Calculation is as follows

$$\begin{aligned}\log_2 [\log_2 (\text{aṅgula})^2] &= \log_2 [2 \log_2 (\text{aṅgula})] \\ &= \log_2 2 + \log_2 \log_2 (\text{aṅgula}) \\ &= 1 + \log_2 \log_2 (\text{aṅgula}) \\ &= 1 + 2 \log_2 \log_2 (\text{palya})\end{aligned}$$

che che 3 This symbol represents set of points in logarithm of (aṅgula)³ to the base 2. The calculation is as follows :

$$\begin{aligned}\log_2 (\text{aṅgula})^3 &= 3 \log_2 (\text{aṅgula}) \\ &= 3 \log_2 (\text{palya}) \log_2 (\text{palya})\end{aligned}$$

In Devanāgarī script this has been expressed as ॐ ॐ ३.

va 2 Ṭoḍaramala states that $\log_2 \log_2 (\text{aṅgula})^3$ or vargaśālākās of ghanāṅgula is the same as the vargaśālākā rāśi of the sūcyaṅgula, which is not correct. This is seen from the following:

$$\begin{aligned}\log_2 [\log_2 (\text{aṅgula})^3] &= \log_2 [3 \log_2 (\text{aṅgula})] \\ &= \log_2 [3] + \log_2 \log_2 (\text{aṅgula}) \\ &= \log_2 [3] + 2 \log_2 \log_2 (\text{palya})\end{aligned}$$

Thus the additional term $\log_2 [3]$, or approximately unity ought to have been added to va 2. However, avoiding even this in approximation for corresponding terms in the two-form (dyadic) square-sequence, and dyadic cube-sequence, it was found that the term order of sūcyaṅgula in the former is the same as that of ghanāṅgula in the latter.

che che che 3

ॐ This symbol denots the logarithmic set of universe-line (jagaśreṇī). In
or Devanāgarī scripts this may be written as ॐ ॐ ॐ ३ or वि ॐ ॐ ३

vi che che 3

ॐ

Here che a is the innumerate part of che or the innumerate part of logarithm of palya. vi represents spread (viralana) set (rāṣi). Calculations can be made from the following relation :

$$(jagaśreṇī) = [ghanāṅgula]^{(\log_2 \text{palya}/\text{asamkhyāta})}$$

$$\therefore \log_2 (jagaśreṇī)$$

$$= \frac{\log_2 (\text{palya})}{\text{asamkhyāta}} \log_2 [\text{aṅgula}]^3$$

$$= \frac{\log_2 (\text{palya})}{a} [3 \log_2 (\text{palya}) \log_2 (\text{palya})]$$

The spread set vi or $\frac{\log_2 (\text{palya})}{\text{asamkhyāta}}$ denotes the operation of spreading ghanāṅgula as many times as $\frac{\log_2 (\text{palya})}{\text{asamkhyāta}}$ and multiplying them into one another, in order to get the value of the jagaśreṇī. All these are either product or quotient or otherwise sets.

va
16 | 2
va 2

This symbol represents the set of points in logarithm of logarithm of universe-line to the base two. This is vargaśālākā rāṣi of jagaśreṇī, written in Devanāgarī as व १६ | २ व २

Here va stands for $\log_2 \log_2 (\text{palya})$ or vargaśālākā rāṣi of palya. This is divided by 16 | 2 or twice the minimal proximate-innumerate (twice the jaghanya parītāsamkhyāta). 16 is the numerical symbol for this number measure. 2 stands for multiplication by 2. The vertical bar between 16 and 2 represents product. Thus through the above process of division, one gets a quotient set . va
16 | 2

This amount is shown in excess to the va 2 written still below in the symbol. Calculations are as follows :

$$\log_2 \log_2 (jagaśreṇī) = \log_2 \log_2 [\{ghanāṅgula\}^{(\log_2 \text{palya}/\text{asamkhyāta})}]$$

$$= \log_2 \left[\frac{\log_2 (\text{palya})}{a} \{ 3 \log_2 (\text{palya}) \log_2 (\text{palya}) \} \right]$$

$$= [\log_2 \log_2 (\text{palya}) - \log_2 a] + [\log_2 3 + 2 \log_2 \log_2 (\text{palya})]$$

ASG p.7

The above has been expressed as the above symbol.

che che che 6 This symbol represent the logarithm set of universe-line squared (ardhaccheda
a rāṣi of jagapratarā). Here 6 appears as twice the three, hence the whole symbol
or represents twice the logarithmic set of universe-line (twice the ardhaccheda
vi che che 6 rāṣi of jagaśreṇī) In Devanāgarī this appears as छे छे छे ६ or वि छे छे ६
Here we have logarithm of jagapratarā to base two = $\log_2 (jagaśreṇī)^2$
1- Hence the symbol as depicted = $2 \log_2 (jagaśreṇī)$
va This symbol stands for a set of logarithm of logarithm of universe-line squared
16 | 2 (varga śālākā rāṣi of jagapratarā). It is clear that 1- denotes an excess of unity
va 2 over the value of the vargaśālākā rāṣi of jagaśreṇī, shown above.

In Devanāgarī this is

१—
व
१६ | २
व २

Thus we have

$$\begin{aligned}\log_2 \log_2 (\text{jaga pratara}) &= \log_2 \log_2 (\text{jagaśreṇī})^2 \\ &= \log_2 [2 \log_2 (\text{jagaśreṇī})] \\ &= \log_2 2 + \log_2 \log_2 (\text{jagaśreṇī}) \\ &= 1 + \log_2 \log_2 (\text{jagaśreṇī})\end{aligned}$$

che che che 9

ॐ

or

vi che che 9

This symbol represent the logarithm set of universe-line cubed (ardhaccheda) rāśi of ghana-loka). In Devanāgarī script this is

ॐ ॐ ॐ ६ or वि ॐ ॐ ६
ॐ

This shows that this set is thrice the set of logarithme set of jagaśreṇī.

This may be shown as follows :

$$\begin{aligned}\log_2 (\text{ghana loka}) &= \log_2 (\text{jagaśreṇī})^3 \\ &= 3 \log_2 (\text{jagaśreṇī})\end{aligned}$$

Hence the symbol as depicted.

va

16 | 2

va 2

This symbol represents set of logarithm of logarithm of ghanaloka (vargaśalākā rāśi of ghana loka). In Devanāgarī this is व

१६ | २
व २

and this is same as the symbol for the vargaśalākā rāśi of jagaśreṇī.

But

$$\log_2 \log_2 (\text{jagaśreṇī})^3 = \log_2 3 + \log_2 (\text{jagaśreṇī})$$

Hence it appears that $\log_2 3$ has been approximately avoided in comparing these two terms, respectively in the two-form (dyadic) square-form and the dyadic cube-form of sequences, the stations passed in both cases being regarded as the same. In the dyadic square-sequence let $(\text{jagaśreṇī})^{1/3}$ appear as nth term and if it is expressed, in its form, it is 2^{2^n} which corresponds $2^{3 \cdot 2^{n-1}}$ term of the dyadic cube-sequence. The difference in unity is in the we may write $3 \log (2^{2^n}) = \log (2^{3 \cdot 2^n})$

$$\text{or } \log \log (2^{2^n}) = \log \log (2^{3 \cdot 2^{n-1}}) \text{ approximately}$$

$$\text{or } n = \log 3 + (n-1).$$

However Toḍaramala states that as many stations pass in the dyadic cube-sequence there is jagaśreṇī, the same very number of stations pass in the dyadic cube-sequence there is ghanaloka.

ASG p.8

Note : Just as 2 is the symbol both for sūcyaṅgula and the āvalī, similarly 4 and 5 represent numerate. Innumerate is somewhere represented by 9, and somewhere innumerate part of trail (āvalī) has the numerical symbol 9.

OPERATIONAL SYMBOLISM

Addition to two sets (rāśis), is denoted by a horizontal bar or without it. For example,

1 or 1- represent lac plus unity. In Devanāgarī this is १ or १ -
la la ल or ल

2 - This represents universe-set plus two. In Devanāgarī script this is २ -
≡ ≡

≡
kha This symbol denots addition of cubic-universe set of points to the (proper) infinity denoted by kha. This in Devanāgarī is written as ≡ and addition of these
ख
two separate sets, one being the existential one and the other being perhaps a construction numerical-measure set is important in history of set theory.

3 This notation represents addition of the following sets : The 3 represents three sets,
≡ fluent space-point-set, fluent aether-point-set (dharma-dravya pradeśa rāśi), fluent
16 | kha anti-aether-point-set (adharma dravya pradeśa rāśi). The ≡ represents real time-
points. Further 16 | kha represents the set of all ultimate-particles (pudgala
paramāṇu rāśi). In Devanāgarī, this appears as ३

ASG p.9

≡
१६ | ख
The addition resultant set is the of all non-living fluent beings (ajīva dravya rāśi)

| This symbol, a vertical bar above the infinite kha represents a quantity slightly
kha greater than infinite. In Devanāgarī this is |
ख

This shows that the concept of slightly greter than infinite resembles Cantor's concept of extension of generation of numbers in construction of proper infinities¹.

|| This symbol, having two vertical lines above the symbol for the numerate
२ (sāṁkhyāta), denotes addition of two sets in the numerate २.

Now we shall deal with subtraction operation.

0 This symbol have zero or a small circle above one, written above a crore, denotes
1 a crore as reduced by unity. This is also denoted by writing 1- above ko, where
ko - symbol appears to be abbreviation from रिण (rina), perhaps in notation of Brahmi
or alphabets passed down to the Devanagari, in which both symbols stand as

1 ko ० or १ -
ko १ को
को

1 - This symbol denotes the infinite as reduced by unity. Such a concept is possible in
kha ordinals. In Devanagari, this is written as १ -, where kha denotes infinite as usual.

ख
0 This symbol, in Devanagari, ० represents the universe set of space-points
२
≡ ≡

(pradeśas) as reduced by 2. The small circle above 2 denotes the operation of subtraction here.

la The symbol, in Devanagari, ल represents the lac as reduced by unity.
 0 ०
 1 १

But here the operation of subtraction has been placed below the operant, and the quantity to be subtracted placed the lowest.

la - 2 This symbol, ल - २ in Devanagari also signifies subtraction of 2 from a lac.

ko 2 This notation, को २ in Devanagari also denotes a koti or crore as reduced by 2. Here Brāhmī script for ri or ṛṇa has become horizontal because usually the operation of addition or subtraction have been placed at the top row of a set or quantity.

ko o The notation, को ० in Devanagari, carries the same meaning that a koti or crore
 2 २
 is to be reduced by 2.

kh - This symbol, ख - in Devanagari, represents that a very small quantity has been subtracted from infinite.

13 = Here is a symbol, १३ = in Devanagari, where 13 denotes the mundane souls set, as reduced by two sets of souls, the vikalendri and sakalendri. The remainder is the ekendri (single-sensed) souls-set. Here the operation of subtraction is understood. The sets to be subtracted are also understood. This attempt has been to abbreviate an expression as far as possible, if it stands isolated and unique from the rest of the symbols. The symbol = appears to be of Brāhmī script origin.

la 5 This symbol with a crescent sign in between two quantities denote that the right
 or hand side is to be subtracted from the left-hand quantity¹. It, in Devanagari ल ५,
 la or ल ५ where now the crescent stands vertical connected again with a crescent,
 5) ५)
 denoted a reduction of la by 5. The crescent appears to signify a waning of a set.

che va che Here also, written as छे व छे in Devanagari, the crescent in horizontal direction, but below, & not in side, represents logarithm of logarithm of logarithm of palya as reduced by logarithm of palya to the base two. It is vargaśālākā of ardhaccheda of palya as reduced by ardhaccheda of palya.

Now operation of multiplication is denoted as follows :

1. As noted earlier for - as a symbol for minus or negative as remanant of ṛṇa or ṛṇa, the symbol (or) or for minus or operation of subtraction or negative is comparable with the sign for ī in standing for vī in an inscription at Badli of Ajmer (Rajputana museum Ajmera) The first

line is "vi r [Ti] ya bhagava [ta]" and the second line is "caturāsīti va [sa] this make the 84th year of Vira Nirvāṇa ie. it may be 443 B.C. earlier to all Ashoken inscriptions as noted by G.H Ojha in the Palaeography (page 3 foot note) of India, Delhi, 1975. It is also not found in any later inscription after Ashoken inscriptions.

la 5	Here the multiplier is written on the right hand side of the multiplicand. It, ल ५ denotes la or lack as multiplied by 5.
ASG p.10 pa २	Here, प २, denotes palya as multiplied by the numerate.
pa ० ०	Here, प ० ० denotes palya as multiplied by innumerate twice.
2 २	This denotes trail or āvalī as multiplied by the numerate. In Devanāgarī, it is 2 २.
≡ ० ≡ ०	This represents, in Devanāgarī, the same, the innumerate universe set of points as multiplied by the same set. Now division operation is shown as follows :
ko 5	Here को or koṭi as divided by 5 shows division by placing the divisor below the dividend, which also shows a fraction.
pa २	Here प २ denotes palya divided by the numerate (saṁkhyāta)
pa ०	Here प ० denotes palya divided by the innumerate (saṁkhyāta)
2 ०	Here 2 ० denotes the finger set (sūcyaṅgula rāśi) of point as divided by the innumerate. Note that somewhere it may also denote a trail set (āvalī rāśi) of points as divided by the innumerate (asaṁkhyāta)
6 ०	Here ६ ० denotes the finger-cubed set of points (ghanāṅgula pradeśa rāśi) as divided by the innumerate (asaṁkhyāta).
≡ ०	This symbol denotes the cubic-universe point-set (ghana-loka pradeśa rāśi) as divided by the innumerate (asaṁkhyāta).
— २	This symbol represents the universe-line point set (jagaśreṇī pradeśa rāśi) as divided by the numerate (saṁkhyāta).
16 kha	Here 16 [k denotes the set of living-beings (jīva-rāśi) as divided by the infinite (ananta).
ke kha	Here के denotes the set of indivisible-corresponding-sections of all knowledge (kevala jñāna avibhāga- prati-cheda-rāśi) as divided by infinite.
1 3	Here १ ३ denotes the fraction $\frac{1}{3}$.

1. This is the usual style of writing a numerator upon a denominator.

1 2	Here १ denotes the fraction $\frac{1}{2}$.
ASG p.11	
3 4	Here ३ denotes the fraction $\frac{3}{4}$.
1 1 2	Here १ १ or ३ denotes the same fraction three upon two. In the former
or 3 2	expression, quotient alongwith the fraction appears, and the vertical bar represents an addition.
5 5 42 = 42 =	Operation for squarring & cubing are as follows : Here ५ ५ stand for 5^2 or 25. Here ४२ = ४२ = stands for vādāla squared,
65 = 65 = 65 =	or $2^2 \times 2^2$ or $[2^2]^2$. Here ६५ = ६५ = ६५ = represents cube of paṇṇaṭṭhi or $[2^2]^3$.
० ० ०	Here (innumerate) ³ is represented
6 6 6 २ २ २	Here ६ ६ ६ represent cube of numerate part of the set of points २ २ २ finger-cubed (ghanāṅgula).
gha mū	Here घ मू represents the cube root.

ASG p.12

la 9 9 3	Here in Devanāgarī ल represents division of lac by 9,9 and 3 ६ ६ ३ which are numerals.
28 8	The process of removal (apavartana) or division of the numerator and denominator simultaneously by a common factor has been $\frac{7 4}{2 4}$ described here. These could be divided by four and the removal of 4 thus leaves 7 and 2 respectively as 7 in place of 28. This is denoted as २८ reducing to ७.
80 × 4 5 × 4	Such an expression $\frac{८०}{५} \times ४$ similarly reduces to 80 or $\frac{८०}{५}$ by the process of apavartana.
16 kha kha	Now in the process of apavartana or removal. Ṭoḍaramala has indicated approximate apavartana for very great sets like the set of all living beings

(jīva rāśi) which when multiplied by infinite plus one or minus one is divided by infinite. In this case the quantity or set 16 or १६ remains unaltered.

Subtraction of a negative set (rāśi)

“ṛṇasya ṛṇaṁ rāśer dhanam” denotes the operation of subtracting a negative set. For example if 100-10 is to be subtracted from 1000, then 10 should be first added to 1000, getting 1010, and then 100 may be subtracted. The other way, only 90 is to be subtracted from 1000, and both process are the same.

Factorization

Suppose 512 is divided by 16 and one gets 32. Then 5/2 may be expressed as 32 multiplied 16. Similarly, factors in the denominator denote division of the numerator by all the factors in the denominator.

ASG. p.13

Combined operations are as follows :

=
4 | 65 = २ | २ | २ | २ | २ Here the numerator is universe-area (jaga-pratara) set and it is divided by 4 or finger-squared (pratarāṅgula) set as multiplied by the 2²⁴ or 65 = (paṇṇaṭṭhi) as well as by २ the numerate five times, in the denominator, 4 is ४ and 65 is ६५ in Devanāgarī.

ko Here, in Devanāgarī को crore or koṭi is divided by lac as multiplied by
la 100 ल १००
4 ४ fourth part of hundred.

AGS p.14 1 - Here १ - denotes concept of a quotient set again. The universe-set
≡ pa प of points (ghana loka pradeśa rāśi) as increased by unity is divided by the set palya of instants.

≡ 1 - Here १ - denotes another aspect in which the set of finger-squared
4 ४ (pratarāṅgula rāśi) 4 is incread by unity and it divides the universe set (ghana loka rāśi).

2- Here २- denotes the set of all ultimate matarial particles (pudgala
16 kha १६ ख rāśi) as reduced by 2 and divided by the infinite kha.
kha ख

ASG p.15

1- १-
la 3 la 1000 Here ल ३ ल १०००
4 1- ४ 1-
10 la 100 १० ल १००
5 ५
denotes a numerator as divided by a denominator. The numerator represents lac multiplied by 3 and fourth part of lac as also multiplied by a thousand plus one. The denominator represent 10 as multiplied by fifth part of lac and multiplied by 100 which is increased by

unity. Thus the result is $\frac{759250 \text{ crore}}{19800000}$

1-
6 | 8 | ॐ
ॐ 1-
pa 8 |
ॐ ॐ

In this symbol in Devanāgarī

१-
६ | ८ | ॐ
ॐ १-
१ ८ |
ॐ ॐ

represents numerator in first two lines leaving the top and denominator in the next two lines. In the numerator is the cubed finger set (ghanāṅgula rāśi) multiplied first by innumerate part of the cubed trail instant set (ghanāvalī samaya rāśi), next by innumerate (asamkhyāta) as increased by unity. Similarly the denominator is the innumerate part (asamkhyāta bhāga) of palya, multiplied by innumerate part (asamkhyāta bhāga) of trail cubed (of ghanāvalī) set as reduced by unity.

ASG p.16

6
pa 19
ॐ

This symbol, in Devanāgarī

६ denotes the finger-cubed set (ghanāṅgula rāśi), divided by innumerate part of palya nineteen times. Thus it represents

$$(\text{ghanāṅgula}) \div \left[\frac{\text{palya}}{\text{asamkhyāta}} \right]^{19}$$

6 | 8 | 22
ॐ

Here again, in Devanāgarī ६ | ८ | २२ denotes the finger cubed (ghanāṅgula)

ॐ

multiplied by innumerate part of trail cubed (ghanāvalī) twenty two times. Hence it

8
ॐ

is an exponent of given by $\left[\frac{8}{a} \right]^{22}$ transcribed in modern notation, 8 being the ghanāvalī.

=
4
2
ॐ

Here numerator is in first two lines as a quotient set obtained by dividing the universe-area (jaga-pratara) set by finger-squared (prataraṅgula) set of points. The denominator is innumerate (asamkhyāta) part of trail (āvalī). In Devanāgarī this is

=
४
२
ॐ

ASG. P.17

la 9
10

This symbol,

ल ९,
१०

stands for a major part (bahubhāga) of lac when it is

divided by 10, one part is

la
10

and hence it when subtracted from la gives the

major part la 9.
10.

1-
16 kha kha
kha

This symbol, in Devanāgarī

१६ ख ख,
ख

also represents the major

part of the set of material particles (pudgala rāśi) when it is divided by infinite kha, because the one part is 16 kha and when this is subtracted from 16 kha,

kha

1-
16 kha kha

we get the major part remaining as

kha.

ASG. p.18

$$\begin{array}{c} \text{1-} \\ \equiv \text{pa} \\ \partial \\ \text{pa} \\ \partial \end{array}$$

This symbol,

$$\begin{array}{c} \text{१-} \\ \equiv \text{प} \\ \partial \\ \text{प} \\ \partial \end{array}$$

denotes similarly, the major part remainig when universe (ghana loka) set is divided by innumerate part of palya, leaving the one part. Now when the one part as remainder is divided by the very denominator and major part is taken one gets

$$\begin{array}{c} \text{1-} \\ \equiv \text{pa} \\ \partial \\ \text{pa pa} \\ \partial \partial \end{array}$$

in Devanāgarī.

$$\begin{array}{c} \text{१-} \\ \equiv \text{प} \\ \partial \\ \text{प प} \\ \partial \partial \end{array}$$

ASG, p.19

If the remainder one part is again divided by the same denominator, and major part is taken, then one gets

$$\begin{array}{c} \text{1-} \\ \equiv \text{pa} \\ \partial \\ \text{pa pa pa} \\ \partial \partial \partial \end{array}$$

$$\begin{array}{c} \text{१-} \\ \equiv \text{प} \\ \partial \\ \text{प प प} \\ \partial \partial \partial \end{array}$$

and the remainder one part is

$$\begin{array}{c} \equiv 1 \\ \text{pa pa pa} \\ \partial \partial \partial \end{array}$$

in Devanāgarī

$$\begin{array}{c} \equiv १ \\ \text{प प प} \\ \partial \partial \partial \end{array}$$

This operation is made use of at various places. Just note that

$$\begin{array}{c} \text{1-} \\ \text{pa} \\ \partial \end{array}$$

becomes a factor of \equiv or ghana loka when major part in any one of the above cases is taken.

1- This stands for operation of adding infinite part of matter-set (pudgala rāṣi) in matter-set itself which is 16 kha here. We get in the numerator the factor kha plus one. This operation result in Devanāgarī is

$$\begin{array}{c} \text{१-} \\ \text{१६ ख ख} \\ \text{ख.} \end{array}$$

2 ५ 5 This symbol denotes the operation result of adding to the intermuhurta 2 ५ the numerate part of the intermuhurta, i.e. 2 ५, one gets in the numerator 4 the factor 4 + 1 = 5. In Devanāgarī one has

$$\begin{array}{c} \text{२ ५ ५} \\ \text{४} \end{array}$$

2 ५ | 5 | 5 If numerate part of this result is again added to it again, one gets २ | ५ | ५ | ५

$$\begin{array}{c} 4 \\ 4 \end{array}$$

$$\begin{array}{c} ४ \\ ४ \end{array}$$

ASG p.20

1-
la 5 This symbol, १ - stands for operation of adding a quantity to its multiple quantity. Here lac is multiplied by 5 and a lac is added to it, then the multiplier 5 becomes 5 + 1 which is denoted as 5 in the notation.

2-
≡ 2 ∂ This symbolization, ≡ २ ∂ in Devanāgarī,

represents the operation of addition of 2 ≡ to as multiplied by 2 ∂ or intermuhūrta. Here denotes universe point-set (loka pradeśa rāśi) which is multiplied by 2 ∂ or inter muhūrta. Thus ≡ 2 ∂ with addition of 2 ≡ becomes ≡ (2 ∂ + 2). Here ≡ is a factor that could be taken out side. So this factorization operation appears in the illustrated form.

1-
ko 5 For subtracting ko from 5 times ko, one has to multiply by five minus one, ie. factor becomes five minus one. Thus ko (5-1) will represent this this operation. Here ko means koṭi or crore, को ५ being the Devanagari expression of the result.

3-
pa ∂ This in Devanāgarī ३ ∂ similarly represents subtraction of three times palya or pa from innumerate (asamkhyāta) times palya. Naturally this becomes a product of palya into asamkhyāta minus three or (pa) (a - 3).

la 5 | 4 | 3 This set symbol is taken to illustrate various types of subtraction from this quantity which is 60 lacs. This is ल ५ | ४ | ३ . The process denotes a display of place-value-notation for representing various types of way of subtraction from a factorized set.

1-
la 5 | 4 | 3 This represents the operation of subtracting a lac from 60 lacs, by showing subtraction of unity from all the factors combined to represent 60. So that this is just la [(5)(4)(3)-1], when transcribed.

1-
la 5 | 4 | 3 Whenever 5 lacs is to be subtracted from 60 lacs then the symbol of subtraction of one ie. 1- should be placed over the combined factors 4 | 3 leaving the 5 with la . 5 This will denote la . 5 [(4) (3) -1].

ASG.p.21

1-
la 5 | 4 | 3 Whenever 20 lacs is to be subtracted from 60 lacs, then the symbol 1- should be shifted to cover onely the 3. Thus it will denote la . 5 . 4. [(3) - 1]
1-
≡ ∂ २ Algebraically, if numerate २ times the innumerate universe ≡ ∂ is to be subtracted by universe ≡ then the symbol of 1- should be placed only above ∂

which would mean $\equiv (\partial - 1) \text{ ॡ}$. This appears to be a mistake by Ṭoḍaramala, since due to this symbol, ॡ would also be multiplied to -1 .

Actually if only \equiv is to be subtracted, one should have the symbol 1— over both ∂ and ॡ i.e.

it should be expressed as
$$\begin{array}{c} 1\text{—} \\ \equiv \partial \text{ ॡ} \end{array}$$

Whenever innumerate universe $\equiv \partial$ is to be subtracted, one has to keep 1— above ॡ . This means $\equiv \partial [\text{ ॡ} - 1]$. This is correct. Similar notational operation for addition has been recommended by Ṭoḍaramala.

$$\begin{array}{c} 3\text{—} \\ \text{la } 5 \mid 4 \mid 3 \end{array}$$
 Here the operation of subtracting 3 lacs from 60 lacs, the symbol 3— is placed above the numeral 5. But this should mean $\text{la } 5 \mid 4 \mid 3$ minus $\text{la } 3$. This means $\text{la } [(5)(4)(3)-3]$ and this has been represented in the way as noted, which appears to be defective because 3— is placed above 5, which should be extended over all the three factors. However we may take it to be authentic for the present.

$$\begin{array}{c} 1\text{—} \\ \text{la } 5 \mid 4 \mid 3 \end{array}$$
 This symbolization stands for subtracting 12 lacs from $\text{la } 5 \mid 4 \mid 3$ or 60 lacs. Thus we require $\text{la } [(5)(4)(3) - (4)(3)]$ or $\text{la } (4)(3) [5 - 1]$. This is therefore correct as it represents that it needs to subtract unity from 5 so as to get the result.

$$\begin{array}{c} 1\text{—} \\ \text{la } 5 \mid 4 \mid 3 \end{array}$$
 Here 1— has been placed over 4 and it represents that 15 lacs is to be subtracted from 60 lacs. This means that $\text{la } [(5)(4)(3)] - \text{la } [(5)(4-1)(3)]$ or $\text{la } [(5)(3)] [4 - 1]$ means that 15 lacs is subtracted from 60 lacs through this operation which is correct and shows the importance of place value over and above the factors.

ASG. p.22

$$\begin{array}{c} 2\text{—} \\ \text{la } 5 \mid 4 \mid 3 \end{array}$$
 The symbol 2— or minus two above the factor 4 will mean $\text{la } [(5)(3)(4-2)]$. That is 30 lacs is subtracted from 60 lacs.

$$\begin{array}{c} 1\text{—} \\ \text{la } 4 \mid 3 \end{array}$$
 This symbolization stands for subtracting 12 from 12 lacs. Here la has above it 1— i.e. $(\text{la} - 1) [(4)(3)]$ does stand for 12 lacs - 12.

$$\begin{array}{c} 1\text{—} \\ \equiv \partial \end{array}$$
 Similarly, if ∂ is to be subtracted from $\partial \equiv$ then 1— is placed over \equiv . This means $[(\equiv) - (1) \partial]$. That is how the symbol for subtraction over factors becomes a shift operator and acts as a place-value operational notation.

$$\begin{array}{c} \text{la } \mid 3 \\ 5 \mid 4 \mid 3 \end{array} \quad \text{dhana rāṣi} \quad \begin{array}{c} \text{la} \\ 5 \mid 4 \mid 3 \end{array}$$
 Addition of these two sets has been shown to be in the following notation:

$$\begin{array}{c} 1\text{—} \\ \text{la } 3 \\ 5 \mid 4 \mid 3 \end{array}$$
 The notation given in ASG carries 1— above la which may be corrected as shown.

Actually this becomes
$$\frac{\text{la } [3+1]}{(5)(4)(3)}$$

The method of addition and subtraction of quantities from the factors of ∂ reducible set or factorizable quantity has been depicted in detail, here.

PROCESS OF DIVISION

1 $\frac{1}{2}$ The process of division by 2 or halving a set is shown here. A quantity is given
2 $\frac{1}{2}$ in the form numerate $\frac{1}{2}$ times trail (āvalī) 2 is the intermuhūrta (antarmuhūrta)
2 and this is first reduced by unity and then divided by 2 for halving it.

This division by 2 numeral is shown by writing 2 numeral below the set. Similarly third, fourth part may be obtained by dividing the set or quantity by 3 or 4 and so on.

ASG p.23

$\frac{1}{2}$

Here one and a half times of rajju cubed $\frac{1}{2}$ has been depicted.

343

343 | 2

Thus the numerator is multiplied by 3 and denominator is multiplied by 2 as shown in the symbolization.


SOME SYMBOLS OF KARMA THEORY

- u This symbol for Devanāgarī उ or ऊँक (urvaṅka) represents infinitesimal or infinite-part, regarding increase or decrease in six-stations fall-out (ṣaṭ sthāna patita).
- 4 This symbol of four, in Devanāgarī ४, represents innumerate part increase or decrease in six-stations fall-out.
- 5 This symbol of five, in Devanāgarī ५, represents numerate part increase or decrease in six-stations fall-out.
- 6 This symbol of six, in Devanāgarī ६, represent numerate times increase or decrease in six-stations fall-out.
- 7 The symbol of seven, in Devanāgarī ७, represents innumerate times increase or decrease in six-stations fall-out.
- 8 Similarly the symbol of eight, in Devanāgarī ८, represents infinite times increase or decrease in six-stations fall-out.
- 1 The symbol of 1 in material cyclic change (pudgala parivartana) represents receptivity (grhīta).
- 0 The symbol of circle in material change represents non-receptivity (agrhīta)
- x The symbol of x, known in Devanāgarī as swan-foot (hansa-pada) represents mixed indication of receptivity and non-receptivity in material change.
- u u Here the symbol of urvaṅka has been repeated and it indicates that the infinite-part increase has been for a frequency of innumerate part of linear finger (sūcyaṅgula).
- 2 $\frac{1}{2}$ The notation, in Devanāgarī २ $\frac{1}{2}$, represents the period of invariant (anivṛtti) operation (karaṇa), which is numerate trail (saṁkhyāta-āvalī).



- 2 २ २ The notation, 2 २ २, represent the period of unprecedented (apūrva) operation (karaṇa), which is numerate times that of the invariant operation.
- 2 २ २ २ The notation, २ २ २ २ in Devanāgarī, represents the period of low-tended operation (adhaḥ pravṛtta karaṇa), which numerate times that of the unprecedented operation.
- sa The notation, स in Devanāgarī, on the topic of karma life-time-structure, represents the minimal (jaghanya) value of instant-effective-bond (samaya-prabaddha).
- sa ० The notation, स ० in Devanāgarī, on the topic of karma life-time structure, represents the maximal (utkrṣṭa) value of instant-effective-bond (samaya-prabaddha).
- sa 32 Some times sa ० or स ० is written as स 32 where sa 32 represents maximal instant effective bond in numeral notation (aṅka sandrṣṭi), used as a gauge (artha) notation.
- ASG p.24**
- sa ० 12– This symbol, in Devanagari स ० १२ – represents sa ० as the maximal instant-effective bond. This is multiplied by a numeral symbol 12– where 12 represents one and a half geometric-regression (gunahani) [actually 8 represents one geometric regression], and the horizontal bar in front denotes a multiple which reduces sa ० 12 slightly.


GEOMETRICAL SYMBOLISM IN KARMA LIFE-TIME STRUCTURE



The vertical line in the symbol represents symbol for time-lag (ābadhā) period. The  triangle, above the line represents a sequences of nisusus (nisekas) which goes on reducing towards top gradually. Excluding the age-karma, remaining seven have time-lag, leaving which, whatever time-bond instants are there, there are as many nisusus¹. A nisus measures the fluent corresponding to an instant, in the matrix of karma structure, which is called 'yantra'.



The vertical line | in this symbol represents a stable (acala) trail (āvalī). Above it is the  triangle which represents the rise-trail (udayāvalī). Above it is the 

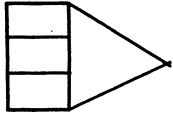
trapezium which represents upper life-time. Above this trapezium is a triangle,  which is called remainder (ucchiṣṭa) trail (āvalī). All those details are with respect


to a karma structure matrix, hence the expressions. It may be noted that the triangular shape as well as the trapezium shape show that the nisusus of the rise trail, upper life-time, & remainder trail are sequentially regressive. “Niṣecanarṇ niṣekaḥ, kamma paramāṇukkhandh ṇikkhevo ṇisego ṇāma”-² This means that installation of molecules of karma ultimate particles is called niṣeka.

“Ābādhunīyā kammaṭṭhidi kamma ṇiseo” means that the measure of life-time of karma as reduced by the time-lag (for certain karma configurations) is karma nisus”.³ In these contexts, after bonds of configurations (prakṛtis), where there is no rise, premature rise etc. fit during a trail (āvalī), the trail is known as stable (acala) trail (āvalī). During the trail in which there is rise of fit nisusus (niṣekas) group, is called a rise-trail (udaya-āvalī) Above this is the group called upper-life-time. At the end these remain nisusus measuring a trail (āvalī), the trail is called remainder trail (ucchiṣṭa-āvalī).


1. GKK vv. 919-1102. 2. SKG / 6/ 1, 9-6/ v. 6/ 150 3. DVL 11/ 4, 2, 6, 101/ 237/16

ENERGY (ANUBHĀGA) OF KARMA SYMBOLS.



In the topic on energy (anubhāga) of karma bond etc., in every variform (vargaṇā) there are found variates (vargas) having equal number of indivisible-corresponding sections, and this is expressed through the left hand side figure. 

ASG p.26

The mesure of the Vargas concerned with vargaṇās is regressive in order, hence  represents this state on the right hand side of the rectangular figure

SYMBOLISM OF THREE OPERATIONS (KARANNAS): THE LOW TENDED (ADHAH PRAVRṬTA), THE UNPRECEDENTED (APŪRVA), THE INVARIANT (ANIVṚTTI)¹

THE LOW-TENDED OPERATION : (Numerical symbolism)

Here the following terminology and symbols have been used for arithmetical progression :

Sum (sarvadhana) 3072

Number of Terms (gaccha) 16

Common difference (caya) 3072
256 | 3

or 4

where sum has been divided by square of the number of terms, i.e., $(16)^2$ and a numerator set symbolized by 3. This solves out to be 4.

Sum of common differences 480

(caya dhana) or 15 | 4 | 16
2

Where this sum is obtained by multiplying half of the gaccha as reduced by unity ie: $\frac{16-1}{2}$ by caya 4 and gaccha 16.

2592
16

When caya dhana is subtracted from sarvadhana, one gets $3072 - 480 = 2592$. This remainder when divided by 16 gives 2592 which is 162 and is called 16

the number of transforms (pariṇāmas) corresponding to first instant of the operation : the low-tended. The remaining terms of this sequence are obtained by adding common difference of 4 one by one. Thus the sequence or arithmetical progression 166 | 170 | 174 | 178 | 182 | 186 | 190 | 194 | 198 | 202 | 206 | 210 | 214 | 218 | 222 | is obtained.²

In this context it may be noted that sarva-dhana has also been called pada dhana. Gaccha is also called pada. Caya is also called pracaya or viśeṣa.

222 This is the last term (antya dhana or bhūmi) of the above arithmetical progression which is obtained by adding ādi or first term 162 to (gaccha - 1) (common difference) or $(16 - 1)(4)$. This gives $162 + 60 = 222$. The formula is “vyekam padam cayābhyastam tadādi sahitaṁ dhanam”³ when common difference 4 is subtracted from this one gets last but one term (dvicarama samaya vartī) for transform (pariṇāma). These transforms are to be established in a column matrix one by one from first term to the last term.

1. Cf. GJK vol.1, p. 81, et seq. 2. Cf. GJK vol.1, pp. 83, et seq. Cf. also JK (SBJ) pp. 42, et seq. 3. Cf. GJK vol.1, p. 84.

STRUCTURE OF SUBSEQUENT-TRACT (ANUKRṢṬI)

The similarity of a piece of transforms (pariṇāmas) becoming at the lower instant (of the mentioned column matrix of transforms) with the piece of transforms becoming at the upper instant is called subsequent-tract (anukrṣṭi). The anukrṣṭi is also defined as the process of divided the transforms of an instant according to the mutual similarity of pieces of transforms of upper and lower instants.¹

16 The number of terms (gaccha) of subsequent-tract is numerate (sarikhyaṭa) part of vertical
4 number of terms (ūrdhva gaccha) which is 16. Here numerate is 4. Thus $16 \div 4 = 4$ is the number of terms of anukrṣṭi. Hence in numerical symbolism the measure of pieces of anukrṣṭi is four.

4 When the common difference (caya) here 4, of vertical structure (ūrdhava racanā is divided
4 by number of terms (gaccha), here 4, of anukrṣṭi one gets the common difference of anukrṣṭi, which comes out to be 4 or unity.

4

162 All The transforms (pariṇāmas) at the first instant are 162. This becomes the total sum (sarva dhana) corresponding to the subsequent-tract (anukrṣṭi) structure at the first instant.

39 Now we shall find out the least piece or first piece of transforms corresponding to first instant. This is obtained from the formula :² The number of terms (gaccha) is reduced by one and halved, and then multiplied by common difference (caya) and number of terms

(gaccha), obtaining $\frac{3}{2} \times 1 \times 4 = 6$. This 6 is called utara dhana and on subtracting this utara dhana from sarva dhana, one gets $162 - 6 = 156$. The amount when divided by gaccha 4, gives 39.

Note : The sum of Ādi dhana and utara dhana is sarva dhana.

$$\text{Thus sarva dhana} = \frac{n}{2} \{2a + n(n-1)d\}$$

$$= na + \frac{1}{2} n(n-1)d$$

$$\text{Here } na = \text{ādidhana}$$

$$\frac{1}{2} n(n-1)d = \text{utara dhana}$$

40 In the least piece of anukrṣṭi i.e. 39, the common difference 1 is added so that the second piece amounting to 40 is obtained similarly third & fourth pieces are respectively 41 and 42. These are to be installed parallel to the installed transforms corresponding to first instant in the vertical structure (of a column matrix).³

1. Cf. GJK, vol.1, p. 54 (Kaṇāṭa vṛtti). The following verss are important: "Caya dhaṇa hīṇaṁ davvaṁ pada bhajide hodi ādi parimāṇa."

"Anukarṣṭi padeṇa hīḍe pacaye pacayaṁ tu hodi tiricche."

2. vyeka padārdhaghna cayaguṇo gaccha uttaradhanam" Cf. GJK vol. 1, p. 85

3. It can be easily seen that the total of transforms (pariṇāmas) is 166 corresponding to second instant. When 166 is subtracted by common difference sum (chaya dhana) 6, one gets 160 and when 160 is divided by gaccha 4 of the anukrṣṭi one gets 40. Thus the subsequent tract for this is 41, 42, 43, after 40. Thus 40 is the first piece of second instant which is equal to the second piece of the first instant.

- 41 | 42 | 43 | 44 Similarly the pieces corresponding to third instant of the anukṛṣṭi structure are obtained as 41 | 42 | 43 | 44.
- 53 | 54 | 55 | 56 Similarly, the pieces corresponding to the 15th instant of the anukṛṣṭi structure are obtained through the same process
- 54 | 55 | 56 | 57 In the same way the pieces corresponding to 16th instant of the anukṛṣṭi structure are obtained.
Note that the 39 denotes the least piece of which there is no equal, similarly 57 denotes the greatest piece of which there is also no equal.

3072 Here the sarvadhana is calculated by the formula¹
first term (mukha) = 162, last term (bhūmi) = 222
whose sum = 162 + 222 = 384. This is halved getting 192 which when multiplied by pada or number of terms 16 gives 192 × 16 = 3072.
Thus the formula is

$$\text{Sum} = n \frac{a + l}{2} \quad \text{where} \quad \begin{array}{l} n \text{ is number of terms (pada),} \\ a \text{ is first term (mukh)} \\ l \text{ is last term (bhūmi)} \end{array}$$

GAUGE SYMBOLISM (ARTHA SANDRṢṬI)

In the low-tended operation now, the process of the sequence and subsequenc (anukṛṣṭi) tract, will be described through gauge-symbolism (artha sandrṣṭi).

≡ ∂ The total number of all transforms (pariṇāmas) relating to various types of mundane souls observed & possible in three-periods (trikāla), are innumerate-universe (asamkhyāta lokas). Here ∂ denotes innumerate and ≡ is the universe points-set (pradeśa rāśi).

2 २२२ For the sequence of the transforms, this becomes the gaccha or number of terms corresponding to the instants in the periodic-set (during which low-tended operation operates) 2 २२२. This is three times numerate multiple of the trail (āvali) 2.

≡ ∂

2२२२ | 2२२२ | २

ASG p.26

≡ ∂ 2२२२

2२२२ | २ | 2

This represents vertical common difference (ūrdhava caya), obtained by dividing sarva dhana ∂ ≡ by square of the gaccha ie. by 2२२२ | 2२२२ |. This again is multiplied by numerate (२) and make the denominator (2२२२ | 2२२२ | २) of the sarva dhana (≡ ∂). This gives the vertical common-difference of the sequence (arithmetical progression).

This represents common difference sum (caya-dhana). To obtain it the process is as follows :² First one is subtracted from number of terms (gaccha) getting 1 $\frac{c}{2}$. This is halved getting 1 $\frac{c}{2}$. This amount is

$$\frac{2 \ २ \ २ \ २}{2}$$

$$2 \ २ \ २ \ २$$

$$1 \frac{c}{2}$$

multiplied by common difference (caya) getting ≡ ∂ 2 २२२२

$$2 \ २ \ २ \ २ \ | \ 2 \ २ \ २ \ २ \ | \ २ \ | \ 2$$

1. Cf. GJK vol.1, p. 88, et seq.

$$\begin{array}{l}
 \frac{1}{\text{---}} \\
 \equiv \partial \ 2 \ ३ \ ३ \ ३ \\
 2 \ ३ \ ३ \ ३ \ 12 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12
 \end{array}
 \quad
 \begin{array}{l}
 \text{This amount is multiplied by number of terms (gaccha) (2३ ३ ३) getting} \\
 \frac{1}{\text{---}} \\
 \equiv \partial \ 2 \ ३ \ ३ \ ३ \ 12 \ ३ \ ३ \ ३ \\
 2 \ ३ \ ३ \ ३ \ 12 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12
 \end{array}$$

From this amount, on cancellation (apavartana) of equal factors 2३ ३ ३ both in the numerator and denominator, one gets the cayadhana. Thus the formula used here forgetting caya-dhana is common

$$\begin{aligned}
 \text{difference caya-dhana sum} &= \left(\frac{n-1}{2}\right) d(n) \\
 \text{ASG p.27} &= \frac{(\text{gaccha} - 1)}{2} (\text{caya}) (\text{gaccha})
 \end{aligned}$$

$$\begin{array}{l}
 \frac{1}{\text{---}} \\
 \equiv \partial \ 2 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12 \\
 2 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12
 \end{array}
 \quad
 \begin{array}{l}
 \text{This symbolization represents the ādi dhana or initial sum,} \\
 \text{obtained by subtracting common-difference sum (caya dhana)} \\
 \text{from the total sum (sarva-dhana). The process of subtracting} \\
 \frac{1}{\text{---}} \\
 \equiv \partial \ 12 \ ३ \ ३ \ ३ \ 1 \\
 2 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12 \\
 \text{form} \\
 \equiv \partial \ 1
 \end{array}
 \quad
 \begin{array}{l}
 \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{cayadhana} \\
 \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{sarva dhana}
 \end{array}$$

For this process, Tṛḍaramala described two formulae : “kalpyo haro rūpa mahāra rāśeḥ” and “riṇasya riṇaṁ rāśerdhanaṁ”.

In the theory of fraction there is the law of equal denominators (samaccheda vidhāna). In order to make the denominators equal, one multiplies the sarvadhana in the numerator and denominator the same amount as in the denominator of the other quantity getting $\equiv \partial \ 12 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12$
 $2 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12$
 Thus the numerator becomes as follows :

$$\begin{array}{l}
 \equiv \partial \ 12 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12 \quad \text{minus} \quad \frac{1}{\text{---}} \\
 \equiv \partial \ 12 \ ३ \ ३ \ ३ \ 1 \quad \text{minus} \quad \equiv \partial \ 12 \ ३ \ ३ \ ३ \ 1 \quad \text{plus} \equiv \partial \\
 \text{or} \quad \equiv \partial \ 12 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12 \quad \text{minus} \quad 2 \ ३ \ ३ \ ३ \ 1 \quad \text{plus } 1] \\
 \text{or} \quad \equiv \partial \ [1 \text{ plus}] 2 \ ३ \ ३ \ ३ \ (2 \ ३ \text{ minus } 1)] \\
 \frac{1}{\text{---}} \\
 \frac{1}{\text{---}} \\
 \text{or} \quad \equiv \partial \ 12 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12
 \end{array}$$

Hence we get the numerator which when divided by denominator common to both, we get the remainder as the ādidhana :

$$\begin{array}{l}
 \frac{1}{\text{---}} \\
 \equiv \partial \ 12 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12 \\
 2 \ ३ \ ३ \ ३ \ 12 \ ३ \ ३ \ ३ \ 1 \ ३ \ 12
 \end{array}$$

ASG p.27

ASG p.28 This quantity ādīdhana is now divided by number of terms (gaccha) 2 ३ ३ ३ which gives the set of transforms (pariṇāma puñja) corresponding to first instant of the low-tended operation; corresponding to various bios (mundane souls).¹

$$\begin{array}{c} 3 \text{ ————— } 1 \text{ — } \\ \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \\ 2 \text{ ३ ३ ३ } \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \end{array}$$

This represents the set of transforms corresponding to second instant of the low tended operation.² This is obtained by adding the vertical common difference (ūrdhava caya)

$$\begin{array}{c} \equiv \partial \\ 2 \text{ ३ ३ ३ } \mid 2 \text{ ३ ३ ३ } \mid ३ \end{array} \quad (1)$$

to the set of transforms at the first instant given by

$$\begin{array}{c} 1 \text{ ————— } 1 \text{ — } \\ \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \\ 2 \text{ ३ ३ ३ } \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \end{array} \quad (2)$$

As such for samcheda in (1) we have to multiply the numerator & denominator by 2. By this process the operation of addition is as follows in the numerator :

$$\equiv \partial \mid 2 \mid \text{ plus } \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \mid$$

$$\text{or } \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2$$

Hence the representation.

Thus every instant the arithmetical progression goes on increasing through the common difference which is called vertical as the sequence of instance & installation of the sets of transforms (pariṇāmas) every instant is also vertical, one by one.

Now the formula for finding the last term of this sequence or the set of transforms (pariṇāma puñja) corresponding to the last instant is obtained by adding to the set of the transforms (pariṇāmas) at the first instant the product of common-difference (caya) with the number of terms (gaccha) which has been reduced by unity. This is $l = a + (n - 1)d$. It is given on L.H.S.³

$$\begin{array}{c} 1 \text{ ————— } 1 \text{ — } \\ \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \\ 2 \text{ ३ ३ ३ } \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \end{array}$$

The symbolic process for obtaining this last term is as follows :

The number of terms (gaccha) as reduced by unity is

$$\begin{array}{c} \text{—} \\ 2 \text{ ३ ३ ३ } \mid \end{array}$$

This is multiplied by the common-difference (caya) so that we have

$$\begin{array}{c} 1 \text{ — } \\ \equiv \partial \mid 2 \text{ ३ ३ ३ } \\ 2 \text{ ३ ३ ३ } \mid 2 \text{ ३ ३ ३ } \mid ३ \mid \end{array}$$

1. Cf. GJK vol.1, p. 88,

2. Cf. GJK vol.1, p. 89,

3. Cf. GJK vol.1, p. 90,

ASG p.29

Thus the above is the product of the common-difference (caya) with the number of terms (gaccha) as reduced by unity. Now this is to be added to set of transforms (pariṇāma puñja) corresponding to the first instant which is

$$\begin{array}{r} 1 \text{ ————— } 1 \text{ — } \\ \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \\ 2 \text{ ३ ३ ३ } \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \end{array} \quad \dots(2)$$

As the denominator of the (1) is not having 2, we operate samaccheda vidhāna (rule of making denominators equal in both terms by multiply numerator & denominator of (1) by 2 getting :

$$\begin{array}{r} 1 \text{ — } \\ \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid 2 \\ 2 \text{ ३ ३ ३ } \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \end{array} \quad \text{---}(3)$$

Hence it is required to add the numerators of (2) and (3) now :

Total numerator is

$$\begin{array}{r} 1 \text{ ————— } \text{ — } \\ \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \\ 2 \text{ ३ ३ ३ } \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \end{array} \quad \text{plus} \quad \begin{array}{r} 1 \text{ — } \\ \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid 2 \end{array}$$

$$\begin{array}{r} 1 \text{ ————— } \\ \text{or } \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid ३ \mid 2 \end{array} \quad \text{minus} \quad 2 \text{ ३ ३ ३}$$

$$\text{plus} \quad 2 \text{ ३ ३ ३ } \mid 2 \text{ minus } 2]$$

$$\text{or } \equiv \partial \mid 2 \text{ ३ ३ ३ } \{ 2 \text{ ३ } \} \quad \text{plus } 1 \quad \text{minus} \quad 2 \text{ ३ ३ ३}$$

$$\text{plus } 2 \mid 2 \text{ ३ ३ ३ } \mid \text{ minus } 2]$$

$$\text{or } \equiv \partial \mid 2 \text{ ३ ३ ३ } \{ 2 \text{ ३ } \text{ minus } 1 \text{ plus } 2 \} \quad \text{plus } 1 \quad \text{minus } 2]$$

$$\text{or } \equiv \partial \mid 2 \text{ ३ ३ ३ } \{ 2 \text{ ३ } \text{ plus } 1 \} \quad \text{minus } 1]$$

$$\begin{array}{r} 1 \text{ — } \\ \text{or } \equiv \partial \mid 2 \text{ ३ ३ ३ } \mid 2 \mid ३ \end{array}$$

Hence this numerator upon the denominator gives the last term of the progression of transforms.

Here one more formula has been used.¹

Similarly the last but one term or the set of transforms (pariṇāma puñja) corresponding to the last but one second of period of low-tended operation is calculated as follows:

1. "dhanasya ṛṇaṁ rāṣeḥ ṛṇaṁ bhavati." Cf. ASG p. 29. "ṛṇasya ṛṇam rāṣerdhanaṁ bhavatīti." Cf. GJK vol. 1, p. 88. In the text at some place — and some places — has been used for wanting or subtraction it seems to be a misprint.

ASG. p.30

$$\begin{array}{r}
 3 \text{ ————— } 1 \text{ —} \\
 \equiv \partial \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \\
 2 \text{ ॐ ॐ ॐ } \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2
 \end{array}$$

In order to obtain this set of transforms corresponding to the last but one instant. We subtract a common difference (caya) made with equal denominator given by

$$\begin{array}{r}
 \equiv \partial \mid 2 \\
 2 \text{ ॐ ॐ ॐ } \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2
 \end{array} \quad (1)$$

from the set of transforms corresponding to the last term given earlier by

$$\begin{array}{r}
 1 \text{ ————— } 1 \text{ —} \\
 \equiv \partial \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \\
 2 \text{ ॐ ॐ ॐ } \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2
 \end{array} \quad (2)$$

It is quite simple to see that the factor 2 of (1), in this subtraction becomes negative, hence we have the desired quatily as ¹

$$\begin{array}{r}
 3 \text{ —} \text{ —} \text{ —} \text{ —} \text{ —} 1 \text{ —} \\
 \equiv \partial \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \\
 2 \text{ ॐ ॐ ॐ } \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2
 \end{array}$$

because 1 — and 2 — will give us 3 —.

The set of transforms for intervening instants can be similarly calculated & otherwise denoted through symbolis for filling up the gap.

Thus we summarize the above result as follows in a vertical column matrix :

NAME TOTAL TRANSFORMS (PARINĀMAS) SET (PUÑJA)¹

Corresponding to Last instant (anta samaya sambandhī)	$ \begin{array}{r} 1 \text{ —} \text{ —} \text{ —} \text{ —} \text{ —} 1 \text{ —} \\ \equiv \partial \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \\ 2 \text{ ॐ ॐ ॐ } \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \end{array} $
--	---

Corresponding to last but one instant (upānta samaya sambandhī)	$ \begin{array}{r} 3 \text{ —} \text{ —} \text{ —} \text{ —} \text{ —} 1 \text{ —} \\ \equiv \partial \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \\ 2 \text{ ॐ ॐ ॐ } \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \end{array} $
--	---

Corresponding to inter mediate instants (madhaya samaya sambandhī)	$ \parallel 0 \parallel 0 \parallel 0 \parallel 0 \parallel 0 \parallel $
---	---

Corresponding to second instant (dvitīya samaya sambandhī)	$ \begin{array}{r} 3 \text{ —} \text{ —} \text{ —} \text{ —} \text{ —} 1 \text{ —} \\ \equiv \partial \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \\ 2 \text{ ॐ ॐ ॐ } \mid 2 \text{ ॐ ॐ ॐ } \mid \text{ ॐ } \mid 2 \end{array} $
---	---

Corresponding to first instant
(prathama samaya sambandhī)

$$\begin{array}{c} 1 \quad \overline{1-c} \\ \equiv \partial \mid 2 \quad \overline{2 \quad 2 \quad 2} \mid \overline{2 \quad 2} \mid 2 \\ 2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2 \quad 2} \mid \overline{2 \quad 2} \mid 2 \end{array}$$

The above is the vertical structure (ūrdhva racanā) for the low tended operation instant to instant (samaya-samaya).

SUBSEQUENT-TRACT STRUCTURE (ANUKṚṢṬI RACANĀ)¹

We have to follow the same procedure here as we followed in the numerical symbolism of such a structure.

2 2 2 | Here trail (āvalī) 2, multiplied by numerate 2 two times is the number of terms (gaccha) for anukṛṣṭi. This is obtained on dividing the gaccha 2 2 2 2 of the low-tended by numerate 2. Hence cancellation (apavartana) of 2 gives 2 2 2.

$$\begin{array}{c} \equiv \partial \\ 2 \quad \overline{2 \quad 2 \quad 2} \mid \overline{2 \quad 2 \quad 2} \mid \overline{2 \quad 2} \mid 2 \quad \overline{2 \quad 2} \end{array}$$

This the common difference (caya) for subsequent-tract (anukṛṣṭi). This is obtained by dividing the vertical common-difference (ūrdhva caya) given by

$$2 \quad \overline{2 \quad 2 \quad 2} \mid \overline{2 \quad 2 \quad 2} \mid \overline{2 \quad 2} \mid$$

by the anukṛṣṭi gaccha as given above 2 2 2 |
Hence we get the anukṛṣṭi caya as on the left side.

ASG p.31

$$\begin{array}{c} 1-c \\ \equiv \partial \mid 2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2} \mid 2 \\ 2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2} \mid 2 \end{array}$$

This symbolization represents the common difference-sum² (caya-dhana) for anukṛṣṭi Here 2 2 2 is common to the numerator and denominator, hence it may be cancelled, giving

$$\begin{array}{c} 1-c \\ \equiv \partial \mid 2 \quad \overline{2 \quad 2} \mid 2 \quad \overline{2 \quad 2} \mid 2 \\ 2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2} \mid 2 \end{array}$$

This is obtained by the formula: $\frac{(n-1)}{2} \frac{n}{1} \frac{d}{1}$

Hence here gaccha as reduced by unity is $2 \quad \overline{2 \quad 2} \mid$ when halved gives $2 \quad \overline{2 \quad 2} \mid$ This

is multiplied by the caya given by $\equiv \partial$

$$2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2 \quad 2} \mid \overline{2 \quad 2} \mid 2 \quad \overline{2 \quad 2} \mid$$

given by 2 2 2, getting

$$\begin{array}{c} 1-c \\ \equiv \partial \mid 2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2} \mid 2 \\ 2 \quad \overline{2 \quad 2 \quad 2} \mid 2 \quad \overline{2 \quad 2 \quad 2} \mid \overline{2 \quad 2} \mid 2 \quad \overline{2 \quad 2} \mid 2 \end{array}$$

from which 2 2 2 may be cancelled both from the numerator & denominator and the set obtained as above.

1. Cf. GJK, vol.1. p. 91. 2. Cf. GJK, vol.1. p. 91.

$$\begin{array}{r}
 2 \overline{1 \text{ — } 1 \text{ —}} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid 2 \mid 2 \text{ २ २ }
 \end{array}$$

This is the first piece of anukṛṣṭi racanā corresponding to the first instant of the low-tendend operation. This is obtained as follows : The formula is

$$\frac{\text{sarva dhana} - \text{caya dhana}}{\text{gaccha}}$$

Hence here sarvadhana for anukṛṣṭi is the first term of the low-tended which is subtracted first by caya dhana, we get the ādi dhana : Hence ādi dhana is equal to

$$\begin{array}{r}
 1 \overline{1 \text{ —}} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid 2 \mid 2
 \end{array}
 \quad \text{minus} \quad
 \begin{array}{r}
 1 \overline{1 \text{ —}} \\
 \equiv \partial \mid 2 \text{ २ २ } \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid 2 \mid 2
 \end{array}$$

Here denominator is the same hence we calculate the remainder numerator which is now on taking $\equiv \partial$ common $\equiv \partial [\{1 \text{ plus } 2 \text{ २ २ २ } \mid 2 \text{ minus } 2 \text{ २ २ २} \} \text{ minus } \{2 \text{ २ २ minus } 1\}]$
or $\equiv \partial [1 \text{ plus } 2 \text{ २ २ २ } \mid 2 \text{ minus } 2 \text{ २ २ २ minus } 2 \text{ २ २ plus } 1]$
because of the verse “ṛṇasya ṛṇaṁ rāṣerdhanam”, the last 1 gets a plus signature. Now take out common 2 २ २ २ from two terms and get

$$\begin{array}{r}
 1 \overline{1 \text{ —}} \\
 \text{or } \equiv \partial [2 \text{ २ २ २ } \mid 2 \text{ plus } 2 \text{ minus } 2 \text{ २ २}]
 \end{array}$$

$$\begin{array}{r}
 1 \overline{1 \text{ —}} \\
 \text{or } \equiv \partial [2 \text{ plus } 2 \text{ २ २ } \{ 2 \mid 2 \text{ minus } 1 \}]
 \end{array}$$

$$\begin{array}{r}
 2 \overline{1 \text{ — } 1 \text{ —}} \\
 \text{or } \equiv \partial \mid 2 \text{ २ २ २ } \mid 2
 \end{array}$$

is the numerator. Dividing this by the denominator we get the desired first piece corresponding to the first instant of the anukṛṣṭi racanā below on L.H.S.

Note: This is how the process of calculations in progressions was adopted at the time of Ṭoḍaramala. Earlier to him we have simply these results hence the procedure for these results may be found to some extent for these results may be found to some extent in the Karṇāta vṛtti of the GJK, but not in complete details.

Now ādi-dhana or initial sum is divided by gaccha 2 २ २ to get the first piece of the first instant of low tended operation.

$$\begin{array}{r}
 2 \overline{1 \text{ — } 1 \text{ —}} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid 2
 \end{array}$$

This is the ādi dhana, hence dividing this by 2 २ २, we get

$$\begin{array}{r}
 2 \overline{1 \text{ — } 1 \text{ —}} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid 2 \mid 2 \text{ २ २ } \quad \dots\dots 3
 \end{array}$$

This is the first piece of the first instant transforms corresponding to the low-tended operation.¹

Note : The transform (pariṇāma)- set corresponding to first instant or other instants, is of three types minimal, middle and maximal (jaghanya, madhyama and utkrṣṭa). When the instant-set of period of the low-tended operation is divided by numerate, we get quotient as piece-set. The number of these pieces is equal to number of instants of nirvargaṇā kāṇḍaka. Here vargaṇā means equality of instants and excluding this, the transform pieces of the upper and upper instant have a set-measure (sarva-pramāṇa) or kāṇḍaka (split) which is called nirvargaṇā kāṇḍaka (non-variform-split). The measure of its instant is thus numerate part of vertical number of terms (ūrdhva gaccha) of low-tended operation.

This very measure is that of the number of terms (gaccha) of anukṛṣṭi (subsequent-tract). Hence transform-set corresponding to every instant have as many pieces as is the measure of gaccha of anukṛṣṭi. These pieces form a progression with a common-difference (caya), known as anukṛṣṭi caya. Hence to get the next piece of the subsequent-tract (anukṛṣṭi) we add to the first piece of the first instant, the anukṛṣṭi caya to get the second piece of transform set corresponding to the first instant.

$$4 \frac{\quad}{1 \frac{c}{1-c}}$$

$$\equiv \partial \ 12 \ 2 \ 2 \ 2 \ 1 \ 2 \ 12$$

$$2 \ 2 \ 2 \ 12 \ 2 \ 2 \ 2 \ 1 \ 2 \ 12 \ 2 \ 2 \ 12$$

The process of finding this is as follows :²

The second piece of first instant = first piece of first instant.

Hence R.H.S. is

+ anukṛṣṭi caya

= (3) + " "

on making the denominator of anukṛṣṭi caya equal to that of (3)

$$2 \frac{\quad}{1 \frac{c}{1-c}}$$

$$\equiv \partial \ 12 \ 2 \ 2 \ 2 \ 1 \ 2 \ 12$$

$$2 \ 2 \ 2 \ 12 \ 2 \ 2 \ 2 \ 1 \ 2 \ 2 \ 2 \ 12$$

plus

$$\equiv \partial \ 12$$

$$2 \ 2 \ 2 \ 12 \ 2 \ 2 \ 2 \ 1 \ 2 \ 2 \ 2 \ 12$$

Hence we need only add the numerators of both quantities :

$$\equiv \partial \ [2 \quad \text{plus} \ 2 \ 2 \ 2 \ \{2 \ 2 \ \text{minus} \ 1 \ \text{minus} \ 1\}]$$

plus $\equiv \partial \ 12$ th quantitus one has :

$$\text{or} \equiv \partial \ [4 \quad \text{plus} \ 2 \ 2 \ 2 \ \{2 \ 2 \ \text{minus} \ 1 \ \text{minus} \ 1\}]$$

$$4 \frac{\quad}{1 \frac{c}{1-c}}$$

$$\equiv \partial \ 12 \ 2 \ 2 \ 2 \ 1 \ 2 \ 12$$

is the numerator which when divided by the denominator gives the resut.

1. Cf. GJK, vol.1. p. 92. 2. Cf. GJK, vol.1. p. 92.

The common-difference (caya) is added to this second piece to get the third piece and we get the numerator factor increased from 4 to 6, from 6 to 8 and so on.

The last-piece as shown in the left margin is obtained¹ in the following way

$$\begin{array}{r} 1 \overline{1 \text{ c}} \\ \equiv \partial \mid 2 \text{ २ २ २ } \mid २ \mid 2 \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid २ \mid 2 \text{ २ २ } \mid 2 \end{array}$$

First the numerator & denominator of (n-1)d is multiplied by 2 in order to make the denominator of both sums equal i.e. the first piece and the (n-1)1.

Thus we have to solve for getting the last piece the following numerator :

$$\equiv \partial [2 \text{ plus } 2 \text{ २ २ } \{ २ (2 \text{ २ minus } 1) \text{ minus } 1 \}]$$

the denominator common to this is

$$2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid २ \mid 2 \text{ २ २ } \mid 2$$

The numerator 5 is given by

$$\equiv \partial [2 \text{ plus } 2 \text{ २ २ } \{ २ (2 \text{ २ minus } 1 \text{ plus } 2 \text{ minus } 2) \}]$$

or cancelling term two of the begining and end we get

$$\equiv \partial [2 \text{ २ २ } \{ २ (2 \text{ २ minus one }) \text{ plus one } \}]$$

$$\begin{array}{r} 1 \overline{1 \text{ c}} \\ \text{or } \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २} \end{array}$$

Hence the last peice is as given earlier.²

Now the last but one peice (upānta Khaṇḍa) is given by

$$\begin{array}{r} 2 \overline{1 \text{ c}} \\ \equiv \partial \mid 2 \text{ २ २ २ } \mid २ \mid 2 \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid २ \mid 2 \text{ २ २ } \mid 2 \end{array}$$

In order to obtain this we subtract the common difference (caya) of anukṛṣṭi from the last piece thus

$$\text{last but one peice} = \text{last peice minus anukṛṣṭi common difference}$$

Here we make the denominator of second expression equal to that of first by multiplying 2 in the numerator and denominator of second expression.

$$\begin{array}{r} 1 \overline{1 \text{ c}} \\ \text{or } \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २} \end{array} \quad \text{minus} \quad \begin{array}{r} 1 \overline{1 \text{ c}} \\ \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid २ \mid 2 \text{ २ २ } \mid 2 \end{array}$$

1. The mistake in ASG, p. 37 (ka) may be noted regarding 1—

2. Cf. GJK, vol.1, p. 93

$$\begin{array}{c} 1 \text{ —————} \\ 1 \text{ —} \\ \text{or } \equiv \partial [2 \text{ २ २ २} | 2 \text{ २ minus } 2] \\ 2 \text{ २ २ २} | 2 \text{ २ २ २} | २ | 2 | 2 \text{ २ २} \end{array}$$

$$\begin{array}{c} 2 \text{ —————} \\ 1 \text{ —} \\ \text{or } \equiv \partial [2 \text{ २ २ २} | 2 \text{ २} \\ 2 \text{ २ २ २} | 2 \text{ २ २ २} | २ | 2 | 2 \text{ २ २} \end{array}$$

This is the last but one peice corresponding to the first instant of the anukṛṣṭi structure.

ASGp.34.

Now the first anukṛṣṭi peice corresponding to the second instant is

$$= \frac{\text{transform set at second instant - common difference sum (caya dhana)}}{\text{number of terms corresponding to anukṛṣṭi}}$$

First we subtract common difference from transform set at second instant which gives

$$\begin{array}{c} 3 \text{ —————} \\ 1 \text{ —} \\ \equiv \partial [2 \text{ २ २ २} | 2 \text{ २} \\ 2 \text{ २ २ २} | 2 \text{ २ २ २} | २ | 2 \end{array} \quad \text{minus} \quad \begin{array}{c} 1 \text{ —} \\ \equiv \partial [2 \text{ २ २} \\ 2 \text{ २ २ २} | 2 \text{ २ २ २} | २ | 2 \end{array}$$

Hence the numerator is affected denominator remains the same

$$\begin{array}{c} \text{or Numerator is} \\ \equiv \partial [3 \text{ plus } 2 \text{ २ २ २} \{ 2 \text{ २ minus } 1 \} \text{ minus } 2 \text{ २ २ plus } 1] \end{array}$$

$$\text{or } \equiv \partial [2 \text{ २ २} \{ २ (2 \text{ २ minus } 1) \text{ minus } 1 \} \text{ plus } 4]$$

$$\begin{array}{c} 4 \text{ —————} \\ 1 \text{ —} \\ \text{or } \equiv \partial [2 \text{ २ २ २} | 2 \text{ २} \end{array}$$

Hence putting numerator and denominator together one gets

$$\begin{array}{c} 4 \text{ —————} \\ 1 \text{ —} \\ \equiv \partial [2 \text{ २ २ २} | २ | 2 \\ 2 \text{ २ २ २} | 2 \text{ २ २ २} | २ | 2 \end{array} \quad \text{.....7}$$

This quantity 7 is to be divided now by gaccha 2२२ so as to get the first piece corresponding to second instant :

Hence dividing 7 by 2२२ one gets

$$\begin{array}{c} 4 \text{ —————} \\ 1 \text{ —} \\ \equiv \partial [2 \text{ २ २ २} | २ | 2 \\ 2 \text{ २ २ २} | 2 \text{ २ २ २} | २ | 2 | 2 \text{ २ २} \end{array} \quad \text{.....8}$$

Note: That 2 running with २ stands for a trail (āvalī).

Similarly, the second piece corresponding to second instant is obtained by adding common difference (caya) corresponding to anukṛṣṭi to the above (8), i.e.,

$$\begin{array}{ccc}
 4 \overline{1 \frac{c}{1-c}} & \text{plus} & \equiv \partial \mid 2 \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 & & 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2 \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \mid 2 \text{ २ २} & &
 \end{array}$$

Here the denominator of the second expression (caya) has been made so that its denominator is the same as that of the first. Thus in the numerator only 2 is to be added to the factor $\equiv \partial$ and we get the second piece corresponding to second instant out right as follows: by adding 2 to 4 only, getting 6 at the top with sign of addition as a bar in front.¹

$$\begin{array}{l}
 6 \overline{1 \frac{c}{1-c}} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \mid 2 \text{ २ २}
 \end{array}$$

In this way one goes on proceeding by adding a common-difference (caya) to each successive piece till we add (n - 1)d or common difference multiplied by number of terms as reduced by unity to get the last piece corresponding to the second instant :

Last piece of second instant = first piece + (number of terms - 1) (common difference)

Hence right hand side is given by

$$\begin{array}{ccc}
 4 \overline{1 \frac{c}{1-c}} & \text{plus} & 1 \frac{c}{1-c} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २} & & \equiv \partial \mid 2 \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2 & & 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2
 \end{array}$$

Note - Here we make the denominator of second expression same as first

Hence taking $\equiv \partial$ as common factor in the numerator, as the denominator has been made the same by multiplying 2 in the numerator & denominator in the last expression, we have on adding

Numerator is

$$\equiv \partial [2 \text{ २ २ } \{ \text{ २ } (2 \text{ २ minus } 1) \} \text{ minus } 1 \} \text{ plus } 4 \text{ plus } 2 (2 \text{ २ २ minus } 1)]$$

Thus out of 4 we get subtraced 2 getting

$$\text{or } \equiv \partial [2 \text{ २ २ } \{ \text{ २ } (2 \text{ २ minus } 1) \text{ plus } 1 \} \text{ plus } 2]$$

Dividing this by denominator and putting everything inusual symbol we get the last piece in relation to second instant.²

1. Cf. GJK, vol. I, p. 94

2. Cf. GJK, vol. I, p. 94

$$\begin{array}{r}
 2 \overline{\quad} \\
 1 \overline{1-} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2
 \end{array}$$

ASG p.35

From the last piece of second instant, a common-difference (caya) in relation to subsequent-tract (anukṛṣṭi) is subtracted to get the last but one piece corresponding to second instant in the anukṛṣṭi structure : The denominator of the caya should be made equal to that of the last piece through samccheda operation

Thus last but one piece.

$$= \text{last piece} \text{ minus } \text{common difference}$$

∴ Right hand side is

$$\begin{array}{r}
 2 \overline{\quad} \\
 1 \overline{1-} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2
 \end{array}
 \quad \text{minus} \quad
 \begin{array}{r}
 \equiv \partial \mid 2 \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2
 \end{array}$$

Note: That caya has been made samccheda by multiplying it by 2 both in the denominator and the numerator.

Thus 2 of the first term cancels with 2 of the second in the numerator :

$$\equiv \partial [2 \text{ plus } 2 \text{ २ २ } \{ \text{ २ } (2 \text{ २ minus } 1) \text{ plus } 1 \} \text{ minus } 2]$$

$$\text{or } \equiv \partial [2 \text{ २ २ } \{ \text{ २ } (2 \text{ २ minus } 1) \text{ plus } 1 \}]$$

Dividing this numerator by the common denominator after writing though the usual symbols of ASG, one gets the last but one piece as follows :¹

$$\begin{array}{r}
 1 \overline{1-} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2
 \end{array}$$

Similarly, there is structure made for every instant and we can find out the first piece in relation to the last instant in the subsequent-tract (anukṛṣṭi) structure (racanā). In order to get this we are required to subtract the anukṛṣṭi common difference-sum (caya dhana) from the total transform set of the last instant; and divide the result by anukṛṣṭi gaccha.

Or first piece of anukṛṣṭi in relation to last instant

$$= \frac{[(\text{total transform-set (pariṇāma puñja) in relation to last instant}) \text{ minus } (\text{anukṛṣṭi caya dhana})]}{\div (\text{anukṛṣṭi gaccha}).}$$

When operated this assumes the following form²

$$\begin{array}{r}
 1 \overline{1-} \\
 \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\
 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2
 \end{array}$$

1. Cf. GJK, vol.1, p. 94

2. Cf. GJK, vol.1, p. 95

process of operation is as follows :

The Right Hand side is given by

$$\begin{array}{l} \frac{1}{1} \\ \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \end{array} \quad \text{minus} \quad \begin{array}{l} \frac{1}{1} \\ \equiv \partial \mid 2 \text{ २ २ } \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \end{array} \quad \text{divided by} \quad 2 \text{ २ २}$$

Hence the solution as first piece in relation to the last instant is

$$\begin{array}{l} \frac{1}{1} \\ \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \mid 2 \text{ २ २ } \end{array}$$

Note: That the placing of $\frac{1}{1}$ in the original text is faulty. The symbol covers an operation in a bracket so to say.

The second piece corresponding to last instant is obtained by adding to the above9 the anukṛṣṭi common difference (caya) from the formula

second piece corresponding to last instant = first corresponding piece plus anukṛṣṭi common difference made of same denominator as first piece

ASG p.36

or right hand side is

$$\begin{array}{l} \frac{1}{1} \\ \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \mid 2 \text{ २ २ } \end{array} \quad \text{plus} \quad \begin{array}{l} \frac{1}{1} \\ \equiv \partial \mid 2 \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2 \end{array}$$

or only we need factor 2 of second time to the first peice

$$\begin{array}{l} 2 \frac{1}{1} \\ \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \mid 2 \text{ २ २ } \end{array}$$

Note: that 2 coming with २ denotes a trail and 2 separate here denotes a number. This seems to be a convention for symbol 2 as a trail (āvalī).

Similarly one gets the last piece corresponding-to the last instant of anukṛṣṭi structure by adding to it first corresponding piece the number terms (gaccha) of anukṛṣṭi as reduced by one. Thus we have the formula :

The last piece corresponding to last instant of anukṛṣṭi structure

= first corresponding piece plus anukṛṣṭi caya as reduced by unity and made samaccheda

or Right Hand side is equal to

$$\begin{array}{l} \frac{1}{1} \\ \equiv \partial \mid 2 \text{ २ २ २ } \mid 2 \text{ २ } \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \mid 2 \text{ २ २ } \end{array} \quad \text{plus} \quad \begin{array}{l} \frac{1}{1} \\ \equiv \partial \mid 2 \mid 2 \text{ २ २ } \mid 2 \\ 2 \text{ २ २ २ } \mid 2 \text{ २ २ २ } \mid \text{ २ } \mid 2 \text{ २ २ } \mid 2 \end{array}$$

Hence numerator with common denominator becomes

$$\equiv \partial [2 \frac{\text{—}}{\text{—}} \{ \frac{\text{—}}{\text{—}} (2 \frac{\text{—}}{\text{—}} \text{ plus } 1) \text{ minus } 1 \text{ plus } 2 \} \text{ minus } 2]$$

$$\text{or } \equiv \partial [2 \frac{\text{—}}{\text{—}} \{ \frac{\text{—}}{\text{—}} (2 \frac{\text{—}}{\text{—}} \text{ plus } 1) \text{ plus } 1 \} \text{ minus } 2]$$

or writing along with denominator the above in used notations one gets

$$\begin{array}{c} 2 \frac{\text{—}}{\text{—}} \\ 1 \frac{\text{—}}{\text{—}} \\ 1 \text{—} \end{array} \equiv \partial \begin{array}{c} 12 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | 2 \frac{\text{—}}{\text{—}} \\ 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | \frac{\text{—}}{\text{—}} | 2 | 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \end{array} \quad (10)$$

Similarly the last but one piece corresponding to the last instant is obtained by reducing a common difference (caya) from 10.

The last but piece corresponding to last instant of anukṛṣṭi

= last piece given in (10) minus anukṛṣṭi caya made samaccheda (common denominator)

∴ Right Hand side is ¹

$$\begin{array}{c} 2 \frac{\text{—}}{\text{—}} \\ 1 \frac{\text{—}}{\text{—}} \\ 1 \text{—} \end{array} \text{ minus } \equiv \partial \begin{array}{c} 12 \\ 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | \frac{\text{—}}{\text{—}} | 2 | 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \end{array} \quad (10)$$

At the common factor of $\equiv \partial$ is $2 \frac{\text{—}}{\text{—}}$ in the first term as subtracted by 2 in the next term, we have $4 \frac{\text{—}}{\text{—}}$ it total getting the solution as

$$\begin{array}{c} 4 \frac{\text{—}}{\text{—}} \\ 1 \frac{\text{—}}{\text{—}} \\ 1 \text{—} \end{array} \equiv \partial \begin{array}{c} 12 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | 2 \frac{\text{—}}{\text{—}} \\ 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | \frac{\text{—}}{\text{—}} | 2 | 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \end{array} \quad (11)$$

ASG p.37

The first piece corresponding to last instant

minus anukṛṣṭi caya is equal to the first piece of the last but one instant.

Hence after making common denominator samaccheda of anukṛṣṭi caya one gets the first piece corresponding to last but one instant as

$$\begin{array}{c} 1 \frac{\text{—}}{\text{—}} \\ 1 \text{—} \end{array} \text{ minus } \equiv \partial \begin{array}{c} 12 \\ 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} | \frac{\text{—}}{\text{—}} | 2 | 2 \frac{\text{—}}{\text{—}} \frac{\text{—}}{\text{—}} \end{array}$$

The factor of 0 is subtracted by 2 giving

$$\begin{array}{r}
 4 \text{ ————— } \\
 1 \text{ ————— } \\
 \hline
 \equiv \partial | 2 \text{ ३ ३ ३ } | 2 \text{ ३ } \\
 2 \text{ ३ ३ ३ } | 2 \text{ ३ ३ ३ } | ३ | 2 | 2 \text{ ३ ३ }
 \end{array}
 \quad \dots 14$$

Now the (14) when subtracted by a common difference (caya) made with common denominator (samaccheda), one gets the last but one piece in relation to last but instant. Here it is clear that in place of 4, now 6 is to be subtracted.

The last but one piece

corresponding to last but one instant:

= last piece **minus** common difference made samaccheda belonging to anukṛṣṭi

or right hand side is

$$\begin{array}{r}
 4 \text{ ————— } \\
 1 \text{ ————— } \\
 \hline
 \equiv \partial | 2 \text{ ३ ३ ३ } | 2 \text{ ३ } \\
 2 \text{ ३ ३ ३ } | 2 \text{ ३ ३ ३ } | ३ | 2 | 2 \text{ ३ ३ }
 \end{array}
 \quad \text{minus}
 \quad
 \begin{array}{r}
 \equiv \partial | 2 \\
 2 \text{ ३ ३ ३ } | 2 \text{ ३ ३ ३ } | ३ | 2 | 2 \text{ ३ ३ }
 \end{array}$$

or numerator is

$\equiv \partial [2 \text{ ३ ३ } \{ ३ (2 \text{ ३ plus } 1) \text{ plus } 1 \} \text{ minus } 4 \text{ minus } 2]$

Hence one gets the whole quantity as ¹

$$\begin{array}{r}
 6 \text{ ————— } \\
 1 \text{ ————— } \\
 \hline
 \equiv \partial | 2 \text{ ३ ३ ३ } | 2 \text{ ३ } \\
 2 \text{ ३ ३ ३ } | 2 \text{ ३ ३ ३ } | ३ | 2 | 2 \text{ ३ ३ }
 \end{array}$$

1. Cf. GJK vol. 1, p. 98.

SUMMARY
STRUCTURE OF LOW-TENDED OPERATION (ADHAḤ PRAVRṬṬAKARAṆA)
IN NUMERICAL SYMBOLISM (AṆKA SAṆDRṢṬI)

Vertical structure of sixteen Instants	SUBSEQUENT-TRACT (Anukṛṣṭi) form of oblique (tiryak) structure (racanā) of four-four pieces corresponding to one-one instant				
	First piece	Second piece	Third piece	Fourth piece	Fifth piece
222	54	55	56	57	
218	53	54	55	56	
214	52	53	54	55	
210	51	52	53	54	
206	50	51	52	53	
202	49	50	51	52	
198	48	49	50	51	
194	47	48	49	50	
190	46	47	48	49	
186	45	46	47	48	
182	44	45	46	47	
178	43	44	45	46	
174	42	43	44	45	
170	41	42	43	44	
166	40	41	42	43	
162	39	40	41	42	

GOAD (AṆKUṢA) STRUCTURE

40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

PLOUGH (HALA) STRUCTURE

40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

ASG. p.37 ka

SUMMARY STRUCTURE OF SUBSEQUENT-TRACT (ANUKRṢṬI)

NAME CORRESPONDING TO	FIRST PIECE	SECOND PIECE	MIDDLE PIECE
LAST INSTANT	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	$ 0 0 $
LAST BUT ONE INSTANT	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	$ 0 0 $
MIDDLE INSTANTS	$ 0 0 0 0 0 $	$ 0 0 0 0 0 0 $	$ 0 0 $
SECOND INSTANT	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	$ 0 0 $
FIRST INSTANT	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	$ 0 0 $

NAME CORRESPONDING TO	LAST BUT ONE PIECE UPĀNTA KHAṆḌA	LAST PIECE ANTA KHAṆḌA
LAST INSTANT	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $
LAST BUT ONE INSTANT	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $	 $\equiv \partial 2 \text{ २२२ } 2 \text{ २ } $ $2 \text{ २२२ } 2 \text{ २२२ } \text{ २ } 2 2 \text{ २२ } $
MIDDLE INSTANTS	$ 0 0 0 0 0 $	$ 0 0 0 0 0 0 $

$$\begin{array}{c} 1 \text{---} \\ 1 \text{---} \\ \equiv \partial \mid 2 \text{ } \text{ } \text{ } \mid 2 \text{ } \\ 2 \text{ } \text{ } \text{ } \mid 2 \text{ } \text{ } \text{ } \mid \text{ } \mid 2 \text{ } \text{ } \end{array}$$
$$\equiv \frac{\partial}{\partial} \begin{matrix} 1- & 1- & 1- & 1- & 1- \\ 2 & 2 & 2 & 2 & 2 \\ \partial & \partial & \partial & \partial & \partial \end{matrix}$$

3. THE UNPRECEDENTED OPERATION (APŪRVA KARANA)

NUMERICAL SYMBOLISM

Total transform-set sum is
(sarva dhana)

4096

Number of terms (gaccha) in form of time-measure is

8

Numerate

4

Common difference (caya) is
given by formula

4096 divided by $(8)^2$ and then divided by 4

common difference (caya) = $\frac{\text{all fluent}}{(\text{gaccha})^2 (\text{sankhyata})}$

or 16

4096
81814

common difference sum
(caya dhana)

1 $\frac{c}{8}$
811618
2

$$= \frac{(\text{number of term} - 1) (\text{common difference}) \text{ number of term}}{2}$$

$$= \frac{8-1}{2} \times 16 \times 8$$

or

448

Transform-set (parināma puñja)

corresponding to first instant

=

$$\frac{(\text{sarva dhana}) - (\text{caya dhana})}{(\text{gaccha})}$$

=

$$\frac{4096 - 448}{8}$$

=

$$\frac{3648}{8}$$

or

$$\frac{3648}{8}$$

in usual notation

Thus in the transform-set of the unprecedented operation, corresponding to the first instant is 3648. In this amount one may add common difference (caya) after common difference in order to get 8 respectively the transform-set corresponding to second instant, third instant, and so on.

In this way, in order to get the transform set corresponding to last instant one has to add to 3648 the common difference (caya) multiplied by number of terms as reduced by one-8

Thus the transform set corresponding to last instant is

$$\frac{3648}{8}$$

plus

$$1 \frac{c}{8} \quad 1618$$

ASG p.39

GAUGE SYMBOLISM (ARTHA SAMDRṢṬI)*

$$\equiv \partial \equiv \partial$$

...1

This denotes the symbolization for total transform-set (pariṇāma dhana) which is innumerate universe as multiplied by innumerate universe.

$$2\overline{2}\overline{2}$$

....2

This denotes the number of terms (gaccha) which is jūst the period of the unprecedented operation. This is trail (āvalī) multiplied two times by numerate २

$$\equiv \partial \equiv \partial$$

$$2\overline{2}\overline{2} \mid 2\overline{2}\overline{2} \mid \overline{2}$$

....3

This symbol denotes the common difference (caya) which is obtained by dividing the sarva dhana $\equiv \partial \equiv \partial$

The common difference is obtained by dividing the sarvadhana $\equiv \partial \equiv \partial$ by square of gaccha as multiplied by numerate quantity.

$$1-\overline{c}$$

$$\equiv \partial \mid \equiv \partial \mid 2\overline{2}\overline{2} \mid 2\overline{2}\overline{2} \mid$$

$$2\overline{2}\overline{2} \mid 2\overline{2}\overline{2} \mid \overline{2} \mid 2$$

This represent the common-difference-sum (cayadhana). This is

obtained from the formula caya-dhana = $\frac{\text{gaccha} - 1}{2}$ (caya) (gaccha)

$$1-\overline{c}$$

$$2\overline{2}\overline{2}$$

$$2$$

is gaccha as

This is clear from the above, where gaccha is 2 २ २.

reduced by 1 and than divided by 2. The remaining is common difference (caya) to which these two are multiplied. The term 2२२ is present both in the numerator and denominator as a factor, hence it could be cancelled out giving

$$1-\overline{c}$$

$$\equiv \partial \mid \equiv \partial \mid 2\overline{2}\overline{2} \mid$$

$$2\overline{2}\overline{2} \mid \overline{2} \mid 2$$

.... 4

as the common-difference sum (caya-dhana). Numerical symbol for this is 448.

For finding out the transform-set (pariṇāma dhana) corresponding to the first instant of the unprecedented operation the formula is

$$\left. \begin{array}{l} \text{transform-set corresponding} \\ \text{to first instant} \end{array} \right\} = \frac{(\text{sarva dhana}) - (\text{caya dhana})}{(\text{gaccha})}$$

First we get sarva dhana minus caya dhana
or

$$\equiv \partial \mid \equiv \partial \quad \text{minus} \quad \equiv \partial \mid \equiv \partial \mid 2\overline{2}\overline{2}$$

$$2\overline{2}\overline{2} \mid \overline{2} \mid 2$$

Making the first expression of same denominator as second one has

$$\equiv \partial \mid \equiv \partial \mid 2\overline{2}\overline{2} \mid \overline{2} \mid 2 \quad \text{minus} \quad \equiv \partial \mid \equiv \partial \mid 2\overline{2}\overline{2} \mid$$

$$2\overline{2}\overline{2} \mid \overline{2} \mid 2 \quad 2\overline{2}\overline{2} \mid \overline{2} \mid 2$$

*. Cf. GJK vol. 1, p. 114 et. seq.

$$\begin{array}{lcl}
 \text{or } \frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} | \equiv \frac{\partial}{\partial} | 2\overline{22} | \overline{2} | 2 & \text{minus} & \frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} | \equiv \frac{\partial}{\partial} | 2\overline{22} | \overline{2} | 2 \quad \text{plus} \quad \frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} | \equiv \frac{\partial}{\partial} | \\
 \text{or } \frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} | \equiv \frac{\partial}{\partial} | 2\overline{22} | \overline{2} | 2 & \text{plus} & \frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} \equiv \frac{\partial}{\partial} \\
 \text{or } \frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} | \equiv \frac{\partial}{\partial} | 2\overline{22} | \overline{2} | 2 & \text{where} & \frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} \equiv \frac{\partial}{\partial}
 \end{array}$$

.....5

has been taken out common and to add one to the factor has been shown in the notation as 1.

Numerical¹ symbol for (5) is given by 456.

Now this (5) is divided by gaccha 222 so that the right hand side of the formula becomes

$$\frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} | \equiv \frac{\partial}{\partial} | 2\overline{22} | \overline{2} | 2$$

.....6

This is the transforma-set corresponding to first instant (prathama samaya)

ASG p.40

Now the transform-set corresponding to second instant

= transform set corresponding to first instant + common difference

= (6) + (3)

Hence we have the Right Hand side as

$$\frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} | \equiv \frac{\partial}{\partial} | 2\overline{22} | \overline{2} | 2 \quad \text{plus} \quad \frac{1}{2\overline{22} | \overline{2} | 2} \equiv \frac{\partial}{\partial} \equiv \frac{\partial}{\partial}$$

In order to make second expression of the same denominator (samacchada) we multiply numerator and denominator of the same by 2 getting

1. Cf. GJK, vol.1. p. 114.

2. Cf. GJK, vol.1. p. 115 in sanskrit commentary ॐ — ० — occurs for 1 ॐ where 0 appears to be a misprint

$$\begin{array}{ccc}
 \begin{array}{c} 1 \text{ —————} \\ 1 \text{ —} \\ \equiv \partial \mid \equiv \partial \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \\ 2 \text{ २ २ } \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \end{array} & \text{plus} & \begin{array}{c} \equiv \partial \equiv \partial \mid 2 \\ 2 \text{ २ २ } \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \end{array}
 \end{array}$$

Hence the common factors are increased by 2, getting 3— in place of 1— in the above on addition.¹

$$\begin{array}{ccc}
 \begin{array}{c} 3 \text{ —————} \\ 1 \text{ —} \\ \equiv \partial \mid \equiv \partial \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \\ 2 \text{ २ २ } \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \end{array} & & \text{....7}
 \end{array}$$

Numerical symbol for this set is 472.

Thus on addition of common difference after common-difference one gets on further transform-sets corresponding to third, fourth and so on instants. In order to get the transform set corresponding to the last instant we add to the (6)

ASG p.41

the product of gaccha as reduced by unity and multiplied by caya.

Transform-set corresponding to last instant

= transform set corresponding to first instant + (gaccha-1) (caya)

or the Right hand side is, after making the second expression with common denominator (samaccheda)

$$\begin{array}{ccc}
 \begin{array}{c} 1 \text{ —————} \\ 1 \text{ —} \\ \equiv \partial \mid \equiv \partial \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \\ 2 \text{ २ २ } \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \end{array} & \text{plus} & \begin{array}{c} 1 \text{ —} \\ \equiv \partial \mid \equiv \partial \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \\ 2 \text{ २ २ } \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \end{array}
 \end{array}$$

Hence numerator is

$$\begin{aligned}
 &\equiv \partial \equiv \partial [2 \text{ २ २ } (\text{ २ } \mid 2 \text{ minus } 1 \text{ plus } 1)] \\
 &\text{plus } \equiv \partial \equiv \partial [(2 \text{ २ २ } \text{ minus } 1) 2]
 \end{aligned}$$

Hence taking $\equiv \partial \equiv \partial$ common, and noting factor 2 in second expression

$$\begin{aligned}
 &\equiv \partial \equiv \partial [2 \text{ २ २ } (\text{ २ } \mid 2 \text{ minus } 1 \text{ plus } 2) \\
 &\text{plus } 1 \text{ minus } 2]
 \end{aligned}$$

we get $\equiv \partial \equiv \partial [2 \text{ २ २ } \{ \text{ २ } \mid 2 \text{ plus } 1 \} \text{ minus } 1]$

Hence converting it to usual notations we have the whole as

$$\begin{array}{ccc}
 \begin{array}{c} 3 \text{ —————} \\ 1 \text{ —} \\ \equiv \partial \mid \equiv \partial \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \\ 2 \text{ २ २ } \mid 2 \text{ २ २ } \mid \text{ २ } \mid 2 \end{array} & & \text{....8}
 \end{array}$$

Numerical symbol for this set is 568. In Davanāgarī

$$\begin{array}{c} 9 \text{ — } \text{८} \\ \text{१ —} \\ \equiv \partial | \equiv \partial | २ \text{ २२ } | \text{ २ } | २ \\ २ \text{ २२ } | २ \text{ २२ } | \text{ २ } | २ \end{array} \quad \dots 8$$

If from (8), the transform-set corresponding to the last instant. We subtract the caya or common difference, (3), we get the transform-set corresponding to the last but one instant as follows (8) - (3) is given by, making (3) of same denominator by multiply 2 in numerator & denominator

$$\begin{array}{c} 1 \text{ — } \text{८} \\ \text{१ —} \\ \equiv \partial | \equiv \partial | २ \text{ २२ } | \text{ २ } | २ \\ २ \text{ २२ } | २ \text{ २२ } | \text{ २ } | २ \end{array} \quad \text{minus} \quad \begin{array}{c} \equiv \partial | \equiv \partial | २ \\ २ \text{ २२ } | २ \text{ २२ } | \text{ २ } | २ \end{array}$$

This makes 1 of the first expression as 3 — ८
and we get

$$\begin{array}{c} 1 \text{ — } \text{८} \\ \text{१ —} \\ \equiv \partial | \equiv \partial | २ \text{ २२ } | \text{ २ } | २ \\ २ \text{ २२ } | २ \text{ २२ } | \text{ २ } | २ \end{array}$$

Numerical symbol for this set is 552. In Devanāgarī :

$$\begin{array}{c} ३ \text{ — } \text{८} \\ \text{१ —} \\ \equiv \partial | \equiv \partial | २ \text{ २२ } | \text{ २ } | २ \\ २ \text{ २२ } | २ \text{ २२ } | \text{ २ } | २ \end{array}$$

It seems that the above manipulation of the process of calculation through such symbols was easier to observe and handle by the predecessors of Ṭoḍaramala. The Karṇāṭavṛtti carries such observations in details than the sanskrit commentary which appears to be condensed a bit on comparison.

There is no anukṛṣṭi structure in the unprecedented operation.

Similarly there is no special symbolism for invariant operation whose period is 2 २.

FINE STRATEGY (SŪKṢMA SĀMPARĀYA)*

ASG p.42

- va This symbol, ३, represents minimal variform (vargaṇā) in relation to symbolism of precedent-super-variform (pūrva spardhaka) in the description of fine-strategy (sūkṣma sāmparāya). The symbol is a Devanāgarī alphabet.
- 9 This symbol, ९, gives the measure of super-variforms (spardhakas) in a geometric-regression (guṇa hāni). This denotes numeral 9 in Devanāgarī.
- na This symbol, ३ in Devanāgarī, represents various (nānā) geometric-regressions or the number of various geometric-regressions corresponding to a topic of karma.

1. Cf. GJK, vol.1. p. 121.

kha	This symbol, ख in Devanāgarī, denotes infinite (ananta). This denotes a proper constructive infinity.
9 u ७	This denotes, ९ in Devanāgarī, division of super-variform counting-rod-set (spardhaka śalākā rāśi) by innumerate (asamkhyāta), ७, times the down-traction (apakarṣaṇa) denominator (bhāgahāra), u.
4	This symbol appearing as numeral ४ of Devanāgarī, represent the measure of variforms (vargaṇās) contained in a super variform (spardhaka)
va 9 nā	This symbolization, व ९ ना in Devanāgarī, represents the number of indivisible-corresponding-sections (avibhāga-praticchedas) of variates (vargas) of maximal precedent (pūrva) super-variform (spardhaka) of which the measure is shown in the symbolic form : va denotes the minimal variate (varga) as multiplied by 9, the supervariform counting rods-set (spardhaka śalākā rāśi), as well as multiplied by nā, the various geometric regression-set (nānā guṇa hāni).
va kha	This notation represents, in Devanāgarī व , the variate (varga), व , of the minimal (jaghanya) precedent (pūrva) supervariform (spardhaka) which is of minimal (jaghanya) variate measure alone, as divided by infinite, ख . Thus va represents the maximal unprecedented supervariform (utkrṣṭa apūrva spardhaka).
va kha 9 u ७	The above set is divided by supervariform rod-set (spardhaka śalākā rāśi), 9, as divided by innumerate, ७, times the down-traction divisor (apakarṣaṇa bhāgahāra), u. This gives the minimal unprecedented super-variform (jaghanya apūrva spardhaka). denoted as व in Devanāgarī.
va kha 9 kha u ७	The preceding set, when divided by infinite (ananta), kha, it gives the maximal gross traction (utkrṣṭa bādara kṛṣṭi), denoted in Devanāgarī by व
va kha 9 kha 4 u ७ kha	The preceding set, is now divided by the infinite part (anantavān bhāga) of variform rod-set (vargaṇā śalākā rāśi), 4, kha one gets the minimal gross traction (jaghanya bādara kṛṣṭi) given in Devanāgarī as व
va kha 9 kha 4 kha u ७ kha	The preceding set is now divided by in finite, kha, when one gets the maximal fine traction (utkrṣṭa sūkṣma kṛṣṭi) given in Devanāgarī as व

va
kha 9 kha 4 kha 4
u ७ kha kha

The preceding result¹ set is now divided by infinite part of variform rod-set (vargaṇā salākā rāśi), one gets the minimal fine traction (jaghanya sūkṣma kṛṣṭi). In Devanāgarī this has been denoted as

व
ख ९ ख ४ ख ४
उ ७ ख ख

where 9 is the same as ९ or nine as a numeral symbol.

DECAY THROUGH GEOMETRIC REGRESSION (GUṆA ŚREṆĪ NIRJARĀ)

ASG p.43

sa ७ 12 -

This notation stands for instant-effective-bond (samaya-prabaddha), sa, as multiplied by innumerate (asamkhyāta), ७, and as multiplied by slightly less one and a half geometric regressions (kiñcidūna dvyardha guṇa hāni), 12 -, giving a measure of fluent of the assemblage (samūha) of karmic ultimate-particle (paramāṇus) All these sets possess some structures in forms of variates, variforms, super variforms and geometric regression etc. which will be detailed later, at the proper occession.

sa ७ 12 -
7

The preceding karmic set when divided by 7, one gets the fluent-set in relation to the knowledge-screening (jñānāvaraṇīya) karma. In Devanāgarī, स ७ १२ - ७ is the notation.

sa ७ 12 -
7 kha

The preceding set is now divided by infinite kha, and the one part as shown, in Devanāgarī, स ७ १२ - ७ ख one gets the all destructive (sarvaghāti), omniscience-screening (kevala jñānāvaraṇī).

1 ८
sa ७ | 12 - | kha
7 kha

Now the remaining part as shown, in Devanāgarī

१ ८
स ७ १२ - ख
७ ख

denotes the part as obtained by subtracting the preceding set from the whole ie., sa ७ 12 -, giving 1 over kha in the numerator.

7

Approximation

Now we approximate the preceding set by considering

1 ८
kha
kha

to be simply unity, on cancellation as an approximate procedure, for kha is very great and when 1 is subtracted, one gets as great an amount. We shall work with this set. The vertical bar denotes a bracket, & used rarely.

1. Cf. GJK, vol.1. p. 123 here the utkrṣṭa alphabet u and for jaghanya ja alphabet have been used.

sa ७ | 12 –
7 | 4

This symbol, got by dividing the preceding approximation set be 4, gives the amount of the karmic fluent distributed equally to perception (mati), scripture (śruta), clairvoyance (avadhi), telepathy (manaḥ paryaya) these four types of knowledge. In Devanāgarī, this is written as

स ७ | १२ –
७ | ४

Now distribution of such fluent to various locations in karmic structural matrix-group is as follows :¹

1-
sa ७ | 12 – pa
7 | 4 | u pa ७
७

This amount of fluent with regard to karma matrix is given to the upper lifetime (uparitana sthiti). This is obtained as follows: (i) first the preceding amount

sa ७ | 12 –
7 | 4

is divided by the u [which is an alphabetical symbol first alphabet of prakrit language, of down-traction denominator (apakarsaṇa bhāgahāra)]. One gets

sa ७ | 12 –
7 | 4 u

(ii) The above result is one part, and when subtracted from the original dividend, we get one part

sa ७ | 12 – 1
7 | 4 u

remaining major part

1-
sa ७ | 12 – u
7 | 4 u

The first term, one part is now divided by pa
७

or innumerate part of palya²

we get two parts :

one part

sa ७ | 12 – 1
7 | 4 | u pa
७

major part

1-
sa ७ | 12 – pa
7 | 4 | u pa ७
७

1. Cf. GJK, vol.1. p. 130.

2. 1. Cf. GJK, vol.1. p. 131.

The major part is given to the upper life-time (uparitana sthiti). It in Devanāgarī, is

$$\begin{array}{c} \text{१-८} \\ \text{स } \partial \text{ १२ - प} \\ \text{७ | ४ | उ } \partial \text{ प} \\ \partial \end{array}$$

ASG p. 44

The remaining precedins one part is now divided by innumerate universe samkhyāta loka), $\equiv \partial$, getting two parts

one part

$$\begin{array}{c} \text{sa } \partial \text{ 12 -} \\ \text{7 | 4 | u pa } \equiv \partial \\ \partial \end{array}$$

major part

$$\begin{array}{c} \text{1-८} \\ \text{sa } \partial \text{ 12 - } \equiv \partial \\ \text{7 | 4 | u pa } \equiv \partial \\ \partial \end{array}$$

$$\begin{array}{c} \text{1-८} \\ \text{sa } \partial \text{ 12 - } \equiv \partial \\ \text{7 | 4 | u pa } \equiv \partial \\ \partial \end{array}$$

This major part is to be given to the geometric series length (guṇaśrenyāyāma) In Devanāgarī this is

$$\begin{array}{c} \text{१-८} \\ \text{स } \partial \text{ १२ - } \equiv \partial \\ \text{७ ४ उ | प } \equiv \partial \\ \partial \end{array}$$

$$\begin{array}{c} \text{sa } \partial \text{ 12 -} \\ \text{7 | 4 | u pa } \equiv \partial \\ \partial \end{array}$$

This remainig one part above is to be given to the rise trail (udāyāvalī). In Devanāgarī, this is

$$\begin{array}{c} \text{स } \partial \text{ १२ -} \\ \text{७ | ४ | उ | प } \equiv \partial \\ \partial \end{array}$$

$$\begin{array}{r} \text{sa } \partial \ 12 - \\ 7 \ 4 \ u \ pa \equiv \partial \mid 4 \\ \partial \end{array}$$

The above fluent set given to the rise-trail is divided by a numerical symbol 4 of āvalī here, getting the result in the margin, called mid-sum (madhya-dhana).

In Devanāgarī this has been shown :

$$\begin{array}{r} स \partial \ १२ - \\ ७ \ ४ \ उ-प \equiv \partial \mid ४ \\ \partial \end{array}$$

$$\begin{array}{r} 1\text{—} \\ 16 - 4 \\ 2 \end{array}$$

This represents twice geometric regression, 16, (which shows that 8 is the numerical symbol for the geometric regression) as subtracted by half of the trail (āvalī) as reduced by unity.

In Devanāgarī this is written

$$\begin{array}{r} १\text{—} \\ १६ - ४ \\ २ \end{array}$$

Twice the geometric regression is also called nīsus-wreath (niṣeka hāra). Here the sign of subtraction is a horizontal bar.

$$\begin{array}{r} \text{sa } \partial \ 12 - \\ 7 \mid 4 \mid u \mid pa \equiv \partial \mid 4 \mid 16 - 4 \\ \partial \end{array} \quad \begin{array}{r} 1\text{—} \\ 2 \end{array}$$

This gives the measure of the common difference (caya). It has been obtained by dividing the mid sum (madhya-dhana)

$$\begin{array}{r} \text{sa } \partial \ 12 - \\ 7 \ 4 \ u \ pa \equiv \partial \mid 4 \\ \partial \end{array}$$

$$\text{by } \begin{array}{r} 1\text{—} \\ 16 - 4 \\ 2 \end{array}$$

both terms have been explained above. The second term for division is placed at the second line from the top. Note may be made about

$$\begin{array}{r} 4 \\ 2 \end{array}$$

which represents half of āvalī as reduced by unity. 4 here represents an āvalī. Similarly 12 is one and a half times the geometric regression (guṇa hāni), 16 represents twice the geometric regression (guṇa hāni) which is represented by 8, a numerical symbol.

The first two numerals in second lines are simply numbers 7 and 4. Moreover '—' sign after 12 represents that some amount is to be deducted similarly the sign '—' after 16 stands for a negative sign.

If the preceding common difference (caya) is multiplied by two geometric regressions, i.e., by 16, one gets the measure of the first nīsus (niṣeka)

$$\begin{array}{r} \text{sa } \partial \ 12 - 16 \\ 7 \mid 4 \mid u \mid pa \equiv \partial \mid 4 \mid 16 - 4 \\ \partial \end{array} \quad \begin{array}{r} 1\text{—} \\ 2 \end{array}$$

In Devanāgarī transcription this has been shown to be:

$$\begin{array}{r} स \partial \ १२ - १६ \\ ७ \mid ४ \mid उ \mid प \equiv \partial \mid ४ \mid १६ - ४ \\ \partial \end{array} \quad \begin{array}{r} १\text{—} \\ २ \end{array}$$

When we subtract a common-difference we get the second nīsus, or a second term of an arithmetic progression with a negative Common-difference as follows; by putting the unity with a negative sign, just after 16 in the first line :

$$sa \mid 12 - 16 - 1$$

$$\begin{array}{r} 7 \mid 4 \text{ u pa} \equiv \partial \mid 4 \mid 16 - 4 \\ \partial \qquad \qquad \qquad 2 \end{array} \quad \begin{array}{c} 1\text{---} \\ 2 \end{array}$$

In Devanāgarī this representation is¹

$$\begin{array}{r} स \mid १२ - १६ - १ \\ ७ \mid ४ उ प \equiv \partial \mid ४ \mid १६ - ४ \\ \partial \qquad \qquad \qquad २ \end{array} \quad \begin{array}{c} १\text{---} \\ २ \end{array}$$

Just to rationalize this subtraction, it may be easily seen that when common difference is subtracted the factor 16 is only effected by being subtracted through unity. But the sign of negative here is not 1 ---

16

but 16 - 1 hence it appears that they wished to same climbing one line above 16 because they needed one more line in subtracting common-difference (caya) multiplied by a trail (āvalī) as reduced by unity, from the first nīsus, getting the last nīsus as follows :

ASG p. 45

$$\begin{array}{r} sa \mid 12 - 16 - 4 \\ 7 \mid 4 \text{ u pa} \equiv \partial \mid 4 \mid 16 - 4 \\ \partial \qquad \qquad \qquad 2 \end{array} \quad \begin{array}{c} 1\text{---} \\ 1\text{---} \\ 2 \end{array}$$

This is as follows :²

last nīsus = first nīsus minus common difference (āvalī minus 1)
or the Right Hand Side is

$$\begin{array}{r} sa \mid 12 - 16 - \\ 7 \mid 4 \text{ u pa} \equiv \partial \mid 4 \mid 16 - 4 \quad \text{minus} \\ \partial \qquad \qquad \qquad 2 \end{array} \quad \begin{array}{c} 1\text{---} \\ 2 \end{array}$$

$$\begin{array}{r} sa \mid 12 - 4 \\ 7 \mid 4 \text{ u pa} \equiv \partial \mid 4 \mid 16 - 4 \\ \partial \qquad \qquad \qquad 2 \end{array} \quad \begin{array}{c} 1\text{---} \\ 1\text{---} \\ 2 \end{array}$$

Hence we get the above result. In Devanāgarī we get

$$\begin{array}{r} स \mid १२ - १६ - ४ \\ ७ \mid ४ उ प \equiv \partial \mid ४ \mid १६ - ४ \\ \partial \qquad \qquad \qquad २ \end{array} \quad \begin{array}{c} १\text{---} \\ १\text{---} \\ २ \end{array}$$

Now the geometric series decay fluent (guṇa śreṇī nirjarā dravya) given to geometric-series length (guṇaśreṇyāyāma) of intermuhūrta only (antar muhūrta mātra) is given by :

$$\begin{array}{ccc} \overset{1-}{\text{sa } \partial \text{ 12} - \equiv \partial} & \text{which in Devanāgarī} & \overset{१-}{\text{स | १२ - १६ - \equiv \partial}} \\ 7 | 4 | u | pa \equiv \partial & & ७ | ४ | उ | प \equiv \partial \\ \partial & & \partial \end{array}$$

It also has a structure in nīsusus (niṣeka racanā) through multiplication of innumerate (asamkhyāta) instant by instant. Here the innumerate has the numeral symbol 4, and at the first instant the rod-set is 1, at the second instant the rod-set is 4, at the third instant the rod-set is 16, at the last instant the rod-set is 64. All when added gives the rod-set 85.¹ Now the geometric-series fluent, above, is divided by this rod-set 85 and we get

or in Devanāgarī

$$\begin{array}{ccc} \overset{1-}{\text{sa } \partial \text{ 12} - \equiv \partial} & \overset{१-}{\text{स | १२ - १६ - \equiv \partial}} \\ 7 \text{ 4 } u \text{ pa} \equiv \partial \text{ 85} & ७ \text{ ४ उ प \equiv \partial ८५} \\ \partial & \partial \end{array}$$

Here 85 is written in the third line, to be a denominator.

Hence proportionately, the nīsusus are obtained from first on words on multiplying this amount respectively by 1, 4, 16, 64 :

$$\begin{array}{ccc} \overset{1-}{\text{sa } \partial \text{ 12} - \equiv \partial | 1} & \overset{1-}{\text{sa } \partial \text{ 12} - \equiv \partial | 4} & \overset{1-}{\text{sa } \partial \text{ 12} - \equiv \partial | 16} \\ 7 | 4 \text{ u pa} \equiv \partial \text{ 85} & 7 \text{ 4 } u \text{ pa} \equiv \partial \text{ 85} & 7 \text{ 4 } u \text{ pa} \equiv \partial \text{ 85} \\ \partial & \partial & \partial \end{array}$$

and

$$\begin{array}{c} \overset{1-}{\text{sa } \partial \text{ 12} - \equiv \partial | 64} \\ 7 \text{ 4 } u \text{ pa} \equiv \partial | 85 \\ \partial \end{array}$$

In these sets 1, 4, 16, 64, have been placed in the second line, first line being for showing subtraction. It stands for a product, it being the line the line of numerators, below which is the line of denominator and so on.

Here, among the divisions of inter muhūrta, the minimal inter muhūrta (jaghanya antaramuhūrta) is finite trail-set or 2२ and the maximal intermuhūrta is obtained by multiplying the former by numerate २ getting it as 2 २ २, when the minimal is subtracted from the maximal, one gets 2 २ २ minus 2 २ where taking out common one ges $\frac{1-}{2 \text{ २ २}}$ and when to this is added unity, one gets all the division of

an intermuhūrta, $\frac{1-}{2 \text{ २ २}}$ In the text 1- has been placed above the middle term, but actually it should

show addition to the whole of the expression as shown.²

1. Cf. GJK, vol.1. p. 134.

2. 1. Cf. GJK, vol.1. p. 137.

ASG p. 46 cotd.

SYMBOLISM IN CHAPTER ON CLASSES OF LIVING BEINGS OR BIO (JĪVA SAMĀSA)

The word JĪVA appears to have resemblance with gwei = to live, suffixed zero grade form * gwi-wo-*gwi-wo-, living. Suffixed variant form * gwiyo-o-in Greek bios, life. Also extended form * gwyō-in Greek zoē, life.

Hence, we shall make use of the word bios in place of Jīva whenever needed as an English equivalent. Thus Jīva-samāsa may be translated as bioclass.

Defintion:² The various types of nature (dharma) in form of similar event (paryāya), through which several living-being as well as various kinds of their genera (jāti) are known or collected through an arbitrary common attribute in bios-aggregates, are called bioclasses. The modes of classification through which bios are collected into classes are also called bio-classes. Those,³ in which endlessly endless bios and their types and subtypes are aggregated, are called bio-classes (Jīva samāsa).

There is style of writing the symbolism for bio-class by writing down a numeral 2 or 3 meant for the developed (paryāpta), the undeveloped (aparyāpta), the finish-undeveloped the attainment undeveloped, under the initial alphabets of Prakrit names of the objects :

sū .	e .	bā .	e .	vi	ti	ca	apam̐	sam̐am̐
2		2		2	2	2	2	2

ASG p.47

IMMERSION (AVAGĀHANĀ)

Def. : Immersion⁴ is to live in soul-points through pervasion.

Among all the bios of the world the least immersion (jaghanya avagāhanā) is given by⁵

6 | 8 | 22

∂				1-
pa	19	8	9	8 22 २ 9
∂	∂	∂		

There are 64 stations in the immersion, out of which the first as the above is the minimal immersion of the fine-vegetable-attainment-undeveloped bios. In Devanāgarī, this is written as

६		८		२२
∂				१ -
प	१९		८	९ ८ २२ २ ९
∂	∂		∂	

1. Cf. The american Heritage Dictionary of the English Language, Ed. W. Morris, Boston, 1969.
2. Cf. GJK, vol.1, p. 142.
3. Cf. JSK, vol. 2, p. 341, Cf also DVL, 1/1,1,8/160/6.
4. Cf. JSK, vol.1, p. 185. Cf. also SSD, 10/1/472/11.
5. Cf. GJK, vol. 1, p. 163

Explanation :

Here 6 denotes the set of points in a volume of finger-cubed (ghanāṅgula). Ahead of it is $\frac{8}{\partial}$ which denotes innumerate part of set of instants in interval of trail-cubed (ghanāvalī). This term set $\frac{8}{\partial}$ has been multiplied into it self 22 times as denoted by the symbol 22 just ahead of it. Just below this $\frac{8}{\partial}$ is the denominator $\frac{pa}{\partial}$ or innumerate part of pit (palya) which is also multiplied into itself 19 times as denoted by the symbol 19, just ahead of it. The vertical bar has been placed for a separation of a factor, and than it has been placed economically, only when it is needed when could not be inferred. Similarly, in the denominator is $\frac{8}{\partial} | 9 |$ which also shows multiplication of the innumerate part of trail cubed (ghanāvalī) instant-set, nine times as denoted by the symbol 9 just ahead of it after a vertical bar,

ASG p. 48

Further $\frac{1-}{8 | 22}$ similarly represent that the innumerate part of ghanāvalī instant set has been first increased by unity and than multiplied twenty-two times into itself as denoted by the numeral symbol 22 just ahead of it after a vertical bar.

Similarly $\frac{9}{\partial} | 9$ in the denominator denotes that the numerate 9 has been multiplied nine times into itself as is denoted by the numeral symbol 9, placed just ahead of it after a vertical bar.

Thus such multiplications denote exponentiation and the raising to a power has thus been symbolized through this mode of writing.

ASG p. 50

From the minimal immersion station of the fine-vegetable-attainment-undeveloped (sūkṣma nigoda labdhi aparyāpta) bios upto the minimal immersion station of the fine airbodied undeveloped bios, there is possible the four-stationed decrease increase (catuḥ-sthāna patita vṛddhi) in order of increase of points (pradeśas) one by one. Symbolism for the same is given as follows : During increase of innumerate part, one has first to abbreviate the minimal immersion of the fine-vegetable-attainment-undeveloped bios.

$$\frac{6 | 8 | 22}{\partial} \frac{1-}{\frac{pa | 19 | 8 | 9 | 8 | 22 | \frac{9}{\partial} | 9}{\partial}}$$

when one puts ja in place of it. This is ॐ in Devanāgarī script.

Now the increase in volume (immersion) in ja is given by increasing points (pradeśas) one by one, getting¹

1. Cf, GJK, vol.1, p. 181. Some where, on p. 182 there are ॐ-, ॐ-, symbols not properly placed & may be corrected. Similarly correction for ॐ more than ja is be shown as $\frac{9}{\partial}$ and not ja.

1 – 2 – 3 – 4 – 5 – and so on.
ja ja ja ja ja

For the middle terms, gaps are to be filled with small circles (bindīs), standing for bindus (points)

till we reach $\frac{1}{ja}$ – and the increase be continued from $\frac{1}{ja}$ where $\frac{1}{ja}$ stands for numerate more.

There has been the use of the formula for finding the total stations :

"ādī ante suddhe vadḍihide rūva sañjude thāṇā"¹

Translation : The amount of points of initial station of immersion in form of innumerate part increase, is subtracted from the amount of points at the last station (sthāna). The result is divided by unity and one is added to it for getting the total number of stations of innumerate part increase.

Now the last term is obtained by first dividing ja by 16 which is the symbol for minimal peripheral innumerate, getting $\frac{ja}{16}$. This is increased² by ja getting $\frac{ja}{16} + ja$ as the last term.

Thus the sequence or series is

1 – 2 – 3 – 4 – 5 – $\frac{1}{ja}$ $\frac{1}{ja}$
ja | ja | ja | ja | ja | ja | o o o | ja | ja | o o o | ja
16
ja

subtracting the first term from the last term, one gets $\frac{ja}{16}$ which when divided by unity is $\frac{ja}{16}$ ||
When 1 is added to it one gets 1 – $\frac{ja}{16}$ || which gives the total number of stations of innumerate part increase.

ASG p. 50

Inexplicable (avaktavya)-part increase : Again there is increase in immersion by one by one points, standing from one more from the last term of the innumerate part increase, i.e. 1 – till we reach

1 – $\frac{1}{ja}$ where 15 is the numeral symbol for the maximal numerate (utkrṣṭa) $\frac{1}{ja}$
ja saṁkhyāta). Now to this is added the minimal immersion ja, getting $\frac{1}{ja}$
15 the last station (term).

1. Cf. GJK, vol.1, p. 183

2. Actually $\frac{ja}{16}$ is increased by $\frac{ja}{16}$ and should have been written as $\frac{ja}{16} + \frac{ja}{16}$ but the all those give

the increased value in the form $\frac{ja}{16}$
 $\frac{ja}{16}$
ja

ASG p. 50

1- $\frac{1}{2}$

ja

15

ja

This amount is reduced by the initial amount getting 2- $\frac{1}{2}$

ja

16 | 15

as ja in excess in both cancel out and 1- becomes 1- $\frac{1}{2}$ due to subtraction. During this operation common denominator is made thus

ja | 15 | ja | 16

16 | 15 | 16 | 15

hence subtraction gives 2- $\frac{1}{2}$. When one is added to the above and the whole divided by 1, one gets the total number of stations of inexplicable

(avaktavya) part increase as ¹ 1- $\frac{1}{2}$

ja

16 | 15 | 1

ASG p. 51

Note- The word vaktavya (explicable) and avaktavya (inexplicable) are important for their specific use in the Jaina school. There are expressions and communication there of.

Communication may be a meaning of "Naya" which may be either explicable (vaktavya) or inexplicable (avaktavya).

Regarding the inexplicable (avaktavya), Vīrasena ācārya, gives a mathematical example,² As there is increase owing to squaring of two unit-forms (rūpas), hence two cannot be denoted as a quasi-figuration (no-kṛti). And since on squaring its square as reduced by its square root, it does not increase, and remains as a set before, hence two can also not be called a figuration (kṛti). Determining this in mind, it has been instructed in the formula that "the number two is inexplicable."

The word "avaktavya" has been also applied in the Saptabhaṅgī (seven combinations)³ concerned with syat-vāda (relativism). Syat means relatively, and Prakrit word for syat is "siyā", and used for showing the existence of several types of nature of a poly ended (anekāntātmaka) object, and relating them one by one according to an arbitrary view-point. It is used for demonstration as well as statement. The mathematical implication of the avaktavyata is the inexplicability of certain circumstance of an expression of a simultaneous existence of more than one type of nature, which may be found in an object, may it be number, etc.

1. Cf. GJK, vol.1, p. 184. There is to be a correction in the amount carrying 1- $\frac{1}{2}$ in the last term in this book, actually it should be 2- $\frac{1}{2}$. Correction is also needed in this page 51 of ASG, in the third line from the bottom where 1- $\frac{1}{2}$ is written for 2- $\frac{1}{2}$.

2. "Dorūvesu vaggidesu vaḍḍhi daṇṣaṇādo doṇṇaṃ ṇaṇo kadittaṃ. Tatto mūlavāṇiya vaggida ṇa vaḍḍhadi, puṇvittā rāsī ceva hodi; Teṇa doṇṇaṃ ṇa kadittaṃ pi at te. Edaṃ maṇeṇa avahāriya duve avattavvamidi vuttaṃ. Esā vidiya gaṇa ṇajaī. Cf. DVL 1/4, 1, 66/274/24.

Cf. also JSK, p. 184.

3. Siyā kasāo siyāo ethataṇa siyā saddo [ṇokasāyaṃ] kasāyaṃ kasāyaṇokasāya visaya atthapajjāe ca davvammi ghaḍāveī | Siyā avattavvaṃ Kasāyaṇokasāya visaya attha pajjāya sarūveṇa ettha teṇa-siyā-saddo kasāya ṇokasāya visaya vaṇjaṇa pajjāya ḍhoei/'Siyā kasāo ca ṇokasāo ca' etthataṇa-siyāsaddo kasāya-ṇokasāya visaya attha pajjāe davveṇa saha ḍhoei/'Siyā kasāo ca avattavvao ca' ettha taṇa siyā saddo ṇo kasāyattaṃ ghaḍāveī | Siyā ṇokasāo ca avattavvao ca' ettha taṇa siyā saddo kasāyattaṃ ghaḍāveī | Siyā kasāo ca ṇokasāo ca avattavvao 'ca' ettha taṇa siyā saddo kaṣāyaṇokasāya avattavvadhammāṇaṃ tiṇhaṃ pi kameṇa bhaṇṇamāṇaṇaṃ davvammi akkama uttiṃ sūcedi. Cf. KSP, 1/1, 13-14/ 273 / 308 / 8. Cf. also JSK. p. 503, et seq.

Dr. J. B. S. Haldane contributed an article on "The Syādvāda System of Predication,"¹ giving an example of mathematical avaktavya. "I therefore begin with a very abstract field, that of algebra. Here we may be certain of our answer. If $x + 2 = 3$, then $x = 1$. But if $x^2 - 3x + 2 = 0$, then $x = 1$ or 2 . We cannot say that the probability that $x = 1$ is greater than, less than, or equal to the probability that $x = 2$. Further data may lead to either of these judgements. Five hundred years ago one might perhaps spoken of indeterminate solutions of equations. Thus if $x^3 - x^2 + x - 1 = 0$, $x = 1$ or $\pm\sqrt{-1}$. The last two solutions were avaktavya (incapable of being spoken) until the invention of complex numbers. To day we can find better examples in the field of arithmetic."

There are several such examples when inexplicable (avaktavya) cases arise yet they exist.

Numerate Part Increase:

When one is added to the last station of inexplicable part increase, the initial station of the numerate part increase is obtained :

ja	In Devanāgarī, this is	ज
15		१५
ja		ज

Half of the minimal (jaghanya) is $\frac{ja}{2}$ which is added to the minimal, getting $\frac{ja}{2}$, the last station (antasthāna).

ASG p. 52

As before, after making the common denominator and subtracting the initial term from the last term one gets

$\frac{ja}{2} \times 2$ where 15×2 stands for 15 minus 2. In the text $\frac{ja}{2} \mid 15$ in karṇāṭa vṛtti KVR GJK, vol.1, p. 186 this has been shown as $\frac{ja}{2} \mid 15$

and $\frac{ja}{2} \mid 15 - 2$ in the in the JTP commentary. Here 15 represents the maximal numerate (utkrṣṭa saṁkhyāta). This is now divided by unity and one is added, getting

$\frac{1}{ja} \mid \frac{15 \times 2}{2 \mid 15}$ gives the total number of station in relation to numerate part increase. The KVR and JTP gives $\frac{1}{ja} \mid 15 - 2$ In Deonāgarī this is given by $\frac{१}{ज} \mid १५ \times २$
 $\frac{1}{2 \mid 15 \mid 1}$

Thus here $\times 2$ has been used as a negative sign, so also the dash – has been used as a negative sign. The $\frac{1}{—}$ above. $15 - 2$ in KVR & JTP is not correct it should stand above ja & all ahead.²

1. Cf. Sankhyā : The Indian journal of Statistics, vol. 18, pts 1 & 2, 1956, pp. 195-200. Cf. also, bid., The Foundations of Statistics, by P. C. Mahalanobis, pp. 183-194.

2. Cf. GJK, vol.1, pp. 186-187.

Inexplicable Part Increase (Avaktavya Bhāga Vṛddhi)

When one is added to the last term of the numerate part increase we get the initial term of the inexplicable part increase given by

1—	In Devanāgarī	१ —
ja		ज
2		२
ja		ज

1—

Now when the minimal immersion measure as reduced by unity, ie., ja is added to the minimal ja, one gets the last term of the inexplicable part increase :¹

1—		१—
ja	or	ज
ja		ज

With the same procedure for finding out the all of terms (stations-sthānas) of inexplicable part increase, one first make both with common denominator, the initial term is subtracted from the last term, and one is added to it, on gets

१—		1—
ज	transcribed as	ja
२		2

as minus one and plus one as well as minus one make minus one in the above.

Numerate Multiple Increase (Saṁkhyāta Guṇa Vṛddhi)

At the last station (term) of the inexplicable part increase one is added to get the initial term of the numerate part increase, 1— plus 1 gives ja 2 or ज २ in Devanāgarī.

ja Here ja is multiplied by 2. The last term of this increase is given
ja by multiplying by 15 or maximal innumerate the minimal
(jaghanya) ja, one gets ja 15 or ज १५.

Both the first and last terms have common denominator, hence subtracting to later from the former one gets ja 15 × 2 or ज १५ × २ which means that 2 is to be subtracted from 15. This sign has not been used in the KVR or JTP². There the expression is ja 15 – 2. When one is added to this one gets the total number of stations of numerate multiple increase :

1		१
ja 15 × 2	or	ज १५ × २

Inexplicable Multiple Increase (Avaktavya Guṇa Vṛddhi)

The initial station of inexplicable multiple increase is given by adding unity to the last term of the preceding (numerate multiple increase) :

1. Cf. GJK, vol.1, p. 187.

2. Cf. GJK, vol.1, p. 188.

1 — 9 —
ja 15 or ज १५

ASG P. 53

This goes on increasing one point by one point (eka eka pradeśa vṛddhi), the last station is 1 —
ja 16 which is ja multiplied by 16, the minimal peripheral innumerate, and subtracted by unity. Here again, initial term is subtracted from the last term and unity is added, getting

1 — १ —
ja or ज, the total number of stations of inexplicable multiple increase.¹

[Note : Here is a mistake by Ṭoḍaramala in ASG, as in place of multiple (guṇa) he write part (bhāga) here].

Innumerate Multiple Increase: This is obtained as the initial station when unity is added to the last term of the preceding increase, getting ja 16 or ज १६ in Devanāgarī. The last station is obtained by multiply the ja by innumerate part of ghanāvalī, 8 . getting ja 8 or ज ८ .

Subtracting the initial from the last term and adding unity, one gets all the stations (terms) of innumerate multiple increase as ja 8 — 16 or ज ८ — १६

Here the minimal, ja, is multiplied by innumerate part of ghanāvalī, and 16 is subtracted from the product, the negative sign has been displayed by a horizontal bar here.

Note that in place of ghanāvalī all the commentaries KVR, JTP and ASG note āvali, when the symbol 8 stands for ghanāvali. It is implied, the word yathā yogya āvali has been used in KVR and JTP.

6 | 8 | 22
∂ 1—
pa | 19 | 8 | 9 | 8 | 22 | १ | 9
१ १

6 8 22 8
∂ ∂
1—
pa 19 | 8 | 9 | 8 | 22 | १ | 9
∂ ∂ ∂

१
सर्वस्थान ज ८ - १६
∂

It may be remembered that ja was abbreviation for when this is multiplied by 8 one gets the

minimal immersion station of five-attainment undeveloped air [living-being], as follows :

Here 8 is the innumerate part of the ghanavali²

1. Cf. GJK, vol.1, p. 191.

2. Cf. GJK, vol.1, p. 193

Now the minimal station is to be subtracted from this maximal station. As the denominators are similar, the innumerate part of ghanāvalī, as a factor, is reduced by unity, whatever is the result is increased by unity, to get the total number of stations from the minimal station of the minimal fine vegetable (jaghanya sūkṣma nigoda aparyāpta kā jaghanya sthāna) to the minimal station of the fine air-undeveloped :

$$\begin{array}{r} 1 \text{ —————} \\ 1 \text{ —} \\ 6 \ 8 \ 22 \ 8 \\ \partial \quad \partial \end{array}$$

$$\begin{array}{r} 1 \text{ —} \\ \text{pa} \mid 19 \mid 8 \mid 9 \mid 8 \mid 22 \mid \text{७} \mid 9 \\ \partial \quad \quad \partial \quad \quad \partial \end{array}$$

Transcribed from

$$\begin{array}{r} 9 \text{ —————} \\ 9 \text{ —} \\ ६ \ ८ \ २२ \ ८ \\ \partial \quad \quad \partial \end{array}$$

$$\begin{array}{r} 9 \text{ —} \\ \text{५} \mid १६ \mid १८ \mid ६ \mid ८ \mid २२ \mid \text{७} \mid ६ \\ \partial \quad \quad \partial \quad \quad \partial \end{array}$$

ASG p. 54

In order to get the total number of stations from the minimal station of the fine-vegetable undeveloped upto the maximal station, we know that the minimal station is

$$\begin{array}{r} 6 \ 8 \ 22 \\ \partial \end{array}$$

$$\begin{array}{r} 1 \text{ —} \\ \text{pa} \ 19 \mid 8 \mid 9 \mid 8 \mid 22 \mid \text{७} \mid 9 \\ \partial \quad \quad \partial \quad \quad \partial \end{array}$$

correction:

[Note that in ASG, the bar has been extended to ७ which is not correct]

This is to be multiplied four times by innumerate part of ghanāvalī, ie., 8 | 4 , further eleven times by

∂

innumerate part of pit (palya), ie. pa 11 , and also

∂

multiplied by innumerate part of trail [cubed] (ghanāvalī), as also by innumerate part of trail [cubed] (ghanāvalī) as increased by unity, for getting the maximal station in the form

$$\begin{array}{r} 1 \text{ —} \\ 6 \ 8 \ 22 \ 8 \ 4 \ \text{pa} \ 11 \ 8 \ 8 \\ \partial \quad \partial \quad \partial \quad \partial \quad \partial \end{array}$$

$$\begin{array}{r} 1 \text{ —} \\ \text{pa} \ 19 \ 8 \ 9 \ 8 \ 22 \ \text{७} \ 9 \ 8 \\ \partial \quad \partial \quad \partial \quad \quad \partial \end{array}$$

Procedure for subtraction from this maximal station of the minimal station is as follows :

ASG p. 55

Both have similar denominators, except the 8 . through which the denominator is

∂

made same. The minus set fit for subtraction is

$$\begin{array}{r} 6 \ 8 \ 22 \ 8 \\ \partial \quad \partial \end{array}$$

$$\begin{array}{r} 1 \text{ —} \\ \text{pa} \ 19 \ 8 \ 9 \ 8 \mid 22 \mid \text{७} \ 9 \ 8 \\ \partial \quad \partial \quad \partial \quad \quad \partial \end{array}$$

In the positive set the multiple of innumerate part of the trail [cubed] was ahead, it may be written ahead of 22,

so that the positive set becomes

1-

6 8 22 8 8 4 pa 11 8
 0 0 0 0 0

1-

pa 19 8 9 8 22 २ 9 8
 0 0 0 0

Here between the positive set and the negative set there is equality of

6 8 22 8
 0 0

the innumerate part of ghanāvalī, four times, etc., or the factors

1-

8 4 pa 11 8 1
 0 0 0

are reduced by unity, for subtraction of the first term from the last term. Further unity is added to the result of subtraction, in order to get the total number of stations of the immersion of the fine vegetable undeveloped : giving the following result :¹

1 —————
 1 —————
 style="text-align: right;">1-

6 8 22 8 8 4 pa 17 8
 0 0 0 0 0

1-

pa 19 8 9 8 22 २ 9 8
 0 0 0 0

When two is subtracted from this set, one gets the measure of kinds of mid-immersion station of the fine vegetable undeveloped getting 1— in place of 1— at the top :

In Devanāgarī, this is given as follows :²

1 —————
 1 —————
 style="text-align: right;">1-

6 8 22 8 8 4 pa 11 8
 0 0 0 0 0

1-

५ 19 8 9 8 22 २ 9 8
 0 0 0 0

१ —————
 १ —————
 style="text-align: right;">१-

६ ८ २२ ८ ८ ४ ५ ११ ८
 ० ० ० ० ०

१-

५ १६ ८ ६ ८ २२ २ ६ ८
 ० ० ० ०

1. Cf. GJK, vol.1, p. 195

2. Cf. GJK, vol.1, p. 195

ASG p. 56

SYMBOLISM IN CHAPTERON DEVELOPMENT (PARYĀPTI)

In this chapter there is given details of the post-universal mathematics (lokottara gaṇita)¹

NUMBER MEASURE : Some of the symbols have already been demonstrated earlier. The symbol for the number of hair (roma) filled up in the unstable etc. wells (cylindrical and abstracted as per long procedure detailed in the text,² is given by $19 =$ where $=$ denotes the remaining digits. Here the set measuring minimal innumerate, ie. 4 is taken as the rod (śālākā) measure of each of the three types of sets known as spread (viralana), and to be given (deya). These sets are to be subtracted in notation $4 - 1, 4 - 2$ etc. When the spread and to be given sets are established, than the sets are sha ∂ , vi ∂ , de ∂ , known as śālākā rāśi, viralana rāśi, deya rāśi, and the subtraction from them is denoted by $\partial - 1, \partial - 2$ etc. Similarly the third time such sets are reestablished, with the same symbols.

Further six sets are mixed, where the symbols of the points (pradeśa) set the dharma, (aether-type fluent), adharma (anti-aether-type fluent), a soul (jīva), universe-space (lokākāśa) have the separate measure symbol each given by three horizontal bars \equiv . This the cubic universe. Innumerate times this amount is the set of single-bodied individual vegetable (apratisthita pratyeka) souls, given by $\equiv \partial$. The set of the common-bodied individual vegetable souls is square of this given by $\equiv \partial \equiv \partial$.

After the rod-trie-process (śālākā traya niṣṭhāpana) the four sets are mixed. There numerate pit (palya) is the measure of Kalpa period, is denoted as pa ३.

The causes (pratyayas) of life-time bond has a number set given by the innumerate universe or $\equiv \partial$. Innumerate universe times this measure is the measure of stations of energy bond over-assiduity (anubhāga bandhādhyavaśāya), given by $\equiv \partial \equiv \partial$. When this is multiplied by innumerate universe one gets the measure of the maximal set of indivisible-corresponding sections (avibhāga praticchedas) of volition (yoga).³

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In the description of the infinite, the six sets mixed for the first time have the symbols as follows. The set of the accomplished souls (Siddha jīva rāśi) is denoted by 3. The set of the vegetable souls (nigoda rāśi) is $13 \equiv$. Here \equiv symbol represents the subtraction of three sets from the set of all mundane (saṃsārī) souls. These sets are the set of pṛthvī (earth) etc., pratyeka vanaspati and the trasa (mobile) souls. Here there is no indication of subtraction from 13 of \equiv . The vegetable souls set is $13 =$ in which pṛthvī etc. and trasa these two sets are to be subtracted from the set 13 of all the mundane souls. Numeral 13 is obtained from 16 which represents the set of all souls in the universe. From 16 is subtracted the numeral symbol 3 from the set of accomplished souls. Thus 13 remain or the set of all mundane souls. Infinite times the set of all souls is 16 kha, the set of all ultimate particles or the matter (pudgala) set. Infinite times this is 16 kha kha is the set of all instants in time (past, present and future). Infinite times this is 16 kha kha kha the set of all points in space (ākāśa). Second time mixed are the infinite sets of indivisible, corresponding-sections of the non-gravity-lavity control (guṇa) of the fluents dharma & adharma.⁴

1. Cf. GJK, vol. I, pp. 207. There is an explicit statement of the commentaries KVR, JTP and SJC (here ASG), regarding the lokottara gaṇita which was developed by the Jaina School.

2. Cf. ibid, pp. 207 et seq.

3. Cf. GJK, vol. I, p. 213

4 Cf. GJK, vol. I, p. 214

The three transfinite sequences, locating various sets are known as the dyadic square (dvirūpavarga dhārā) etc.¹ Ṭoḍaramala gives in the following symbols for filling up gaps through small circles (bindī). The log to the base two is denoted by ardhaccheda and log of log to the base two is denoted by vargaśalākā. Ardhaccheda is denoted by che or छे and vargaśalākā is denoted by va or व which are written before the set, standing as operations to be performed on the sets ahead and the values obtained as छे or व of the sets. First root is denoted by mu 1 and cube is symbolized by writing the set three times.

Most of the symbols have been related earlier alongwith their symbols. These terms appear as terms of the sequences which have dyadic structures, denoted respectively as in the following symbolic representation, transcribed from the ĀSG. There is some difference in the GJK text in KVR and JTP, in so far as the words have been abbreviated in them through their initial alphabets.

The dyadic square sequence (dvirūpa varga dhārā) has its general term given by 2^{2^n} where n is the ordering number of term. For different values of, n, like the fermat numbers, numerate (saṁkhyāta), innumerate (asaṁkhyāta), and infinite (ananta), numerate innumerate, infinite types of sets of existential character are constructed through such an abstraction. The symbolism of various terms produced at difference nth station, for n numerate, innumerate or infinite. When the sets produced are finite, the values of n is numerate, similarly the sets are of innumerate type, the values of n is innumerate. In the same way is the case of the sets of infinite type.²

TRANSCRIPTION DVIRŪPA VARGADHĀRĀ KE STHĀNANI KĪ SAṂDRṢṬĪ

2	4	16	256	65 =	42 =	18 =	o	va	o	mū 1	jaghanya parītāsamkhyāta ॥ 16 ॥	o	āvalī ॥ 2 ॥	
pratarā valī ॥ 4 ॥	o	va	o	che	o	mū 1	palya	o	sūcyaṅgula	pratarāṅgula	o	jagaśreṇī ghanamūla		
o	va	o	che	o	mū 1	jaghanya parītānanta 256	o	jaghanya yuktānanta juju a	jaghanya anantananta juju a va	o	va	o	che	o
mū 1	jīva rāśi 16	o	pudgala rāśi 16 kha	o	kāla rāśi 16 kha kha	o	śreṇī ākāśa 16 kha kha kha	pratarākāśa 16 kha kha kha	o					
dharma adharma ke agurulaghu avibhāga praticcheda kha kha				o	eka jīva ke agurulaghu avibhāga praticcheda kha kha kha				o	jaghanya jñāna kha kha kha kha			o	
jaghanya kṣāyika labdhi kha kha kha kha kha				o	va	o	che	o	kevalajñāna ke aṣṭammūlādi mū ॥ 8 ॥ mū ॥ 7 ॥ mū ॥ 6 ॥ mū ॥ 5 ॥					
mū ॥ 4 ॥ mū ॥ 3 ॥ mū ॥ 2 ॥ mū ॥ 1 ॥						kevala jñāna								

1. Cf. Jain, L. C., Divargam Sequences locating Transfinite Sets in Trilokasāra, 9JHS, vol. 12, no. 1, 1977, pp. 57-75, for details.

2. Cf. GJK, vol. I, p. 216, et seq. The values of n are called varga sthānāni. Small circles in the above table stand for filling up the gaps. Jaga chreṇī is the same as jagaśreṇī. Jaghanya yuktananta is the same as the set of non-accomplishable souls (abhavya jīva rāśi). In the place of ma at the end, one should have mū, error has been corrected.

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Similarly the dyadic cube-sequence (dvirūpa ghana dhaārā) has the general term

TRANSCRIPTION $2^{3(2)^n-1}$ with the same specification as in the preceding sequence :**DVIRŪPA GHANA DHĀRĀ KE STHĀNANI KĪ SAMDR̥ṬĪ¹**

8	64	4096	256 = 6 ³ =	65 = 42 =	42 = 18 =
āvali ghana 8	pratarāvali ghana 64	o	va va va	o	che che che o
mū 1 mū 1 mū 1	palya ghana pa pa pa	o	ghanāṅgula	o	jagacchrenī - jagapratarā = o
va va va o	che che che	mū 1 mū 1 mū 1	jīva rāśi ghana 16 16 16	va va va	o
che che che o	mū 1 mū 1 mū 1	sarva ākāśa	o	kevala jñāna ke dvitīya mūla ghana mū 2 mū 2 mū 2	

The general term of the dyadic cube-non-cube sequence is given by $2^{(3)^2 2^{n-2}}$

TRANSCRIPTION

DVIRŪPA GHANĀGHANA DHĀRĀ VIṢAI STHĀNANI KĪ SAMDR̥ṬĪ

8 8 8	o	lokākāśa ≡	o	agnikāyika guṇakāra śalākā	o	va	che	o	mū 1	agnikāyika rāśi	o		
va	o	che	o	mū 1	agnikāyika sthiti	o	va	o	che	o	mū 1	avadhi viṣaya utkr̥ṣṭa kṣetra	
o	va	o	che	o	mū 1	sthiti bandha adhyavasāya sthāna	o	va	o	che	o	mū 1	anubhāgabandha adhyavasāya sthāna
o	va	o	che	o	mū 1	nigoda śarīra utkr̥ṣṭa saṁkhyā etāvat ≡ ∂ ≡ ∂ ≡ ∂ ≡ ∂ ≡ ∂	o	va	o	che	o		
mū 1	nigoda kāya sthiti	o	va	o	che	o	mū 1	utkr̥ṣṭa yoga sthāna avibhāga praticcheda	o				
kevala jñāna caturthamūla ghanāghana mū 4/9													

1. In the above table, the single horizontal bar below the jagacchraṇī is missing in the ASG., The term repeating, or the operation repeating three times represent the cube of the term or cube of the term obtained after the operation on the term ahead of it. The order of the stations is written as varga sthānāni. Cf. GJK, vol.1, pp. 219-223.

The vertical bar has been placed after certain symbols in the above table, to denote the, ending of the item or as a sign of separation*.

Defⁿ: Guṇakāra Śalākā rāśi (Multiple rod-set)

When all the sets given to the spread set measure (of rods) are multiplied into each other, the number of terms the multiplication is made into a given set, or the power to which the given set, given to every one of the spread set rod, is called guṇakāra śalākā

SIMILE MEASURE (UPAMĀ PRAMĀṆA)¹

In the topic of the simile measure 41 = amount of hair are filled in. The vyavahāra palya or behavioral pit is given by multiplying the trail (āvalī) by two by two twice, getting 2 २ २ . The uddhāra palya or withdrawal pit set is given by

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o
3
vi che che 3
1) | 25 ko 2
3

In Devanāgarī it is

o
३
वि छे छे ३
१) | २५ को २
३

Where the log₂ (world-line) is symbolized by vi che che 3 | Above this line is the symbol of 3 or

o
3

subtraction of 3, getting the log₂ (rajju or the rope) in the form vi che che 3 : Here vi is the spread-set (viralana rāśi) is the multiplicand (guṇya). From this is to be subtracted log₂ (sūcyāṅgula) as increased by the numerator, we see that there is three times multiple of log₂ (sūcyāṅgula), hence on removal rule of three (apanaya trairāśika), the third part as increased is subtracted from the multiplicand spread set getting the total number of all islands and oceans of karṇānuyoga² in the following form :

o
3
vi che che 3
1)
3

where from the spread set (viralana rāśi) the subtraction of the one-third part is given by the symbol) which is a vertical phase of the new-moon type of a curved design. This amount is divided by twenty five crore squared or 25 ko 2, getting the symbol in complete form, as a symbol for uddhāra palya.

* Cf. GJK vol. 1. pp. 223 et seq.

1. Cf. GJK, vol.1, pp. 232 et seq. Cf also TPG, for the concerned verses of GJK.

2. Cf. GJK. vol.1, p. 237. Cf. also TPT vol. 2 topic on island & universes of middle universe. Cf also TPG, p. 56 et seq.

SYMBOL FOR ARDHACCHEDA AND VARGASLĀKĀ OF ADDHĀ PALY¹ ETC.

NĀMA ∅	PALYA	SĀGARA	sūcyaṅgula (finger)	pratāra aṅgula finger square)	ghana aṅgula finger- cube)	jagacch reṇi universe line)	jaga pratara universe -square)	Loka (universe cube
pramāṇa kī	pa	sā	2	4	6	—	=	≡
ardhaccheda kī	che	ॐ che	che che	che che 2	che che 3	che che che 3	vi che che 6	vi che che 9
vargaśālāka kī	va	o	va 2	1— va 2	va 2	va 16 2 va 2	1— va 16 2 va 2	va 16 2 va 2

1. \log_2 is the operation for ardhaccheda. $\log_2 \log_2$ varga śālāka.
 Corrections or exact expressions have already been discussed earlier in the beginning.
 Remaining technical term have already been explained, earlier.

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In the above table, regarding the measure of the logarithm of logarithm to base two (varga śālākas) of the world-line (jagacchreṇī), one should note the following:

The square-root of logarithm to base two (ardhaccheda) set (rāśi) of the addhā pit period (addhā palya) is to be reduced in sequence to logarithm to base two (ardhaccheda) of twice the minimal peripheral innumerate (jaghanya parīta asaṁkhyāta). For this purpose :

First of all, the symbol of logarithm of logarithm to base two (vargaśālākā) of palya is denoted by che va

The half of logarithm of logarithm to base two (vargaśālākā) of pit (palya) is similar to logarithm to base two (ardhaccheda) of first square root (prathama varga mūla) of the logarithm to base two (ardhaccheda) of pit (palya), is denoted by the logarithm to base two (ardhaccheda) of last but one square root are to be known to be logarithm of logarithm to base two (varga śālākā) of pit (palya) as divided by the minimal peripheral innumerate (jaghanya parīta asaṁkhyāta). The logarithm to base two of the last square root are to be known as half of those of the proceeding.

TRANSCRIPTION

che		va
mū	1	va
		2
mū	2	va
		2 2
mū	3	va
		2 2 2
o		o
o		o
o		o
mū		va
		16

The spread set (vīralana rāśi) in relation to world line (jagaśreṇī) is innumerate part of logarithm to base two (ardhaccheda) of palya, obtained by mutually multiplying as many two's as in the logarithm to base two (ardhaccheda) of the last square root (anta mūla).

The logarithm to base two (ardhaccheda) of this spread set (viralana rāśi) are similar to logarithm of logarithm to base two (vargaśālākā) of pit (palya) as divided by twice the minimal peripheral innumerate (jaghanya parīta asaṁkhyāta). To this is added the logarithm of logarithm to base two (vargaśālākā) of the presentable (deya) set, the finger cubed (ghanāṅgula), one then gets the logarithm of logarithm to base two (vargaśālākā) of the world-line (jagaśreṇī). Hence the symbol of the logarithm of logarithm to base two (vargaśālākā) of the world-line (jagaśreṇī) is to be known as mentioned earlier. Similarly the possible symbols are to be known in the description of pride (māna).

**PERIODS IN RELATION TO DEVELOPMENT PRESENTATION
(PARYĀPTI PRARŪPANĀ) :**

The period of transassimilative development (āhāraka paryāpti) is a small intermuhūrta (antarmuhūrta), denoted by

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2 ॐ

This set is divided by 4 the numerical symbol of numerate (sarṅkhyāta), getting

2 ॐ
4

When both the above sets 2 ॐ | 2 ॐ are mixed, one gets the period of body-development (śarīra paryāpti) denoted by

2 ॐ | 5

4 :

This is evident, because 2 ॐ is made of same denominator by multiplying and dividing it by 4 getting 2 ॐ 4 , then on adding the next common denominator

term one gets as the development period (paryāpti kāla) of sense (indriya) is,

which is obtained by adding the numerate part of the above, ie. 2 ॐ ,
4 | 4

2 ॐ | 5 | 5
4 | 4

to the two earlier ie. 2 ॐ | 2 ॐ , by making then of equal denominators.

joḍa (sum)
2 ॐ 5 5 5 5 5
4 4 4 4 4

Transcription: Here joḍa means sum, the columns from first to the last being those of assimilation (āhāra), body (śarīra), sense (indriya), respiration (ucchavāsa), language (bhāṣā) and mind (mana): This is to be known till the development of the mind (manaḥ paryāpti) : yantra (matrix)

				joḍa (sum) 2 ॐ 5 5 5 5 4 4 4 4	2 ॐ 4 4 4 4 4
			joḍa (sum) 2 ॐ 5 5 5 4 4 4	2 ॐ 4 4 4 4	2 ॐ 4 4 4 4
		joḍa (sum) 2 ॐ 5 5 4 4	2 ॐ 4 4 4	2 ॐ 4 4 4	2 ॐ 4 4 4
	joḍa (sum) 2 ॐ 5 4	2 ॐ 4 4	2 ॐ 4 4	2 ॐ 4 4	2 ॐ 4 4
joḍa (sum) 2 ॐ	2 ॐ 4	2 ॐ 4	2 ॐ 4	2 ॐ 4	2 ॐ 4
2 ॐ	2 ॐ	2 ॐ	2 ॐ	2 ॐ	2 ॐ
āhāra (food)	śarīra (body)	indriya (sense)	uccharāsa (breath)	bhāṣā (language)	mana (mind)

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THE RULE OF THREE SETS (TRAIRĀŚIKA)

The symbols for pramāṇa, phala, iccha or measure, acquisition & requisition, respectively are pra, pha, i. The result is given as labdha.

SYMBOLISM ON CHAPTER ON LIFE-COURSE (GATI)

Wherever there is description of number of bios (jīvas) the measure of all hellish bios (nārākī jīvas) is

– 2 mū Here the horizontal bar – denotes the world line (jagāśreṇī). The second square root, ie. square root of square root of the finger cubed (ghanāṅgula) is 2 mū. Here symbol for ghanāṅgula is mute, ie., does not appear and is understood.

Similarly the measure of number of hellish bios in the second etc. hells is denoted by

12 | 10 | 8 | 6 | 3 | 2 |

Here the horizontal bar '—' above the numbers shows the set of points in the numerator amounting to the world line (jagāśreṇī) in each case. Below this the denominators are the 12th square root, 10th square root, 8th square root, 6th square root, 3th square root, and 2nd square root, respectively, of the world-lines (jagāśreṇī) itself.

When all the six above form of square roots are added one gets

1 Here the horizontal bar '—' denotes world-line (jagāśreṇī), as multiplied by 1 (unity).
— 1 Its twelfth square root is the denominator as — 1 , and the vertical bar ' | '
12 12

denotes the addition of others representing an excess (sādhika).

When the preceding set is subtracted from the set of common hellish bios, one gets the set measure of the hellish beings of ghamā hell, as

o | Here the measure set of common hellish bios is denoted as – 2 . Here multiplicand
– 2 – 1 is world line "—" and multiplier is second square root of finger-cubed, or symbolically
12 this is "2" . Ahead of it is the factor (guṇakāra) as subtracted, the factor denoting the sum of six sets as noted earlier. The sign of subtraction is denoted by small circle 'o'.

Now here is the case of removal or subtraction through rule of three sets (apanayana traīrāśika), the measure set (pramāṇa rāśi) is world line (jagāśreṇī) or **pra** as – . The acquisition set (phala rāśi) is 1 or **pha** as 1 . The requisition set (icchā rāśi) is the sum of the six sets of all the six hell's bios denoted as by **i** as

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1
— 1 For finding out the measure of common hellish bios, the multiplicand is world line
12 and the multiplier is second square root of finger cubed (ghanāṅgula). If a world line is to be subtracted from this amount, then one is to be subtracted from the multiplier.

Then if the world-line in excess as divided by the twelfth square root of the world line (jagāśreṇī) is to be subtracted, then the question is how much should be subtracted from the multiplier? Hence the rule of three sets is applied here. Hence the requisition set (icchā rāśi) is multiplied by acquisition set (phala rāśi) and the product is divided by measure set (pramāṇa rāśi), one gets the result set (labdha rāśi) as the one twelfth part in excess (sādhika), of the square root of the world line (jagāśreṇī). This set is subtracted from the second square root of the finger cubed (ghanāṅgula). The remainder is multiplied by the world-line (jagāśreṇī), where the measure set of the hellish bios of first hell ghamā, is obtained.

NOTE : Just see that the treatment of rule of three is with sets. Here are the set of points (pradesa rāṣi) ghanāṅgula denotes the set of points contained in a cube of dimension one aṅgula each way. Similarly the world-line (jagaśreṇi) represents the set of points (pradeśa rāṣi) in a linear stretch of this line which is finite. Thus the rule of three sets is justified for the word trai-rāṣika. The application of the rule was not limited only to numerical quantities but also to sets.

Sub human life course (tiryañca gati) :

Here the symbol for common subhuman (sāmānya tiryañca) in the subhuman life course (tiryañca gati) is

13 ≡ Where the set of worldly bios is 13 as numerical symbol. Ahead of it three sets subtracted are shown as ≡ , the subtraction symbol being suppressed and the three sets being
(i) the hellish bios set (nāraka jīva rāṣi)
(ii) the human set (maṇuṣya rāṣi)
(iii) the divine bios set (deva jīva rāṣi)

The symbol for five sensed sub human set (pañcendriya tiryañca rāṣi) is denoted by ¹

= 5836 Ahead, we shall describe this through the five sensed bios set (pañcendriya
4 | 4 | 6561 jīva rāṣi) as subtracted by the three sets ≡ as mentioned earlier.

∂ ≡ Similarly the symbol for developed five sensed sub human set (paryāpta
pañcendriya tiryañca rāṣi) is

= 5864 Here also, ahead we shall write the symbol for developed five sensed set
4 | 4 | 6561 (paryāpta pañcendriya rāṣi) as subtracted by the ≡ , denoting three sets as
5 ≡ mentioned earlier.

The symbol for the wombed subhuman set (yonigata tiryañca set) is

=

⁰
4 | 65 = | 81 | 4 | 10

This is obtained by first squaring 600 yojanas, and converting this into finger squared (pratarāṅgulas). Then $(2)^{(2)^{(4)}}$ or 65536, known as paṇṇatṭhi and denoted by 65 = symbol is multiplied by 81 as well as 4, and multiplied by $(10)^{10}$ which means the same thing as writing of 10 zeros ahead of the result in the denominator. Thus a circle above 10 shows that 10 zeros are to be added ahead of the number. The number so obtained is the divisor of the world-line-squard (jagapratara). Just below this = is the symbol 4, denoting finger squared (pratarāṅgula).

Now the symbol for non-developed five-sensed-subhuman set is denoted by ²

⁰
5 8 6 4 | 5 ≡
= 5 8 36 ∂ ≡
4 | 4 | 6561

Here also, ahead we shall write the symbol of developed five sensed (paryāptā pañcendriya) and in it, from the negative set and positive set the symbol for subtraction of three sets of the three life-causes of bios as mentioned earlier, is given as

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≡ , Again, about the human life-course (maṇuṣya gati) the symbol for common or general (sāmānya) human-set (maṇuṣya-rāṣi) is , $\frac{1-}{1 | 3}$

1. Cf. GJK. vol.1, pp. 28-286.

2. Cf. GJK. vol.1, pp. 285-286 for different representations of the same set.

where the horizontal line stands for world-line or universe-line (jagaśreṇi). It has below in the product of first and third square root of the finger point-set (sūcyaṅgula pradeśa rāśi) denoted by $1 \mid 3$. Above is the symbol $1-\text{c}$ denoting the subtraction of unity from the quotient.

Again the symbol for developed-human set (paryāpta manuṣya-rāśi) is $42 = 42 = 42 =$. This is known to be the cube of $(2)^{(2)^5}$ ie. the cube of vādāla.

When the above is multiplied by 3 and divided by 4, we get the symbol of-the wombed (yonigata) human-set (manuṣya rāśi) as $42 = 42 = 42 = 3$
4

Again the symbol for the undeveloped (aparyāpta) or nondevelopable (aparyāpta) human-set (manuṣya-rāśi) is $\frac{1-\text{c}}{1 \mid 3} - \text{v}$

Here the symbol $-\text{v}$ denotes the subtraction of numerate developable human-set (paryāpta manuṣya rāśi) from general human-set (sāmānya manuṣya-rāśi).

Again, the symbol for the vyantara type of set among the divine-life-course (deva-gati) is

=
o
4 | 65 = | 81 | 4 | 10
Here the universe-square (jagat pratara) square of 300 yojanas which becomes 81 multiplied by $(2)^{(2)^4}$ or paṇṇatṭhī which has

been denoted by $65 =$. Ahead of it are to be added ten small circles. This amount is multiplied by the square of finger-point set (pratarāṅgula) which has been denoted by the numerical symbol 4 in the denominator.

Again the astral set (jyotiṣkā rāśi) is symbolized by $\frac{=}{4 \mid 65} =$

Here the universe-square (jagapratara) is denoted by $=$ in the numeralor which is divided by the finger-point-set-square (pratarāṅgula) denoted by 4, as well as by $(2)^{(2)^4}$ or paṇṇatṭhī denoted by $65 =$

The symbol for bhavanavāśi life-course set (rāśi) is -1 , where the horizontal bar $-$ denotes the universe-line point set (jagaśreṇi-pradeśa-rāśi) and the 1 stands as a multiple given by first square-root of finger-cubed point-set (ghanāṅgula-pradeśa-rāśi).

The symbol for divine-set (deva rāśi) in the Saudharma-couple is denoted by -3 . Here the universe-line-point set (jagaśreṇi pradeśa-rāśi) is denoted by horizontal bar $-$ and the 3 denotes the multiple given by the third square-root of finger-cubed-point set (ghanāṅgula pradeśa rāśi).

Again, the symbol for the respective devine-sets (deva-rāśi) among the Saṇat Kumāra, Māhendra couple etc., five couples, is $\overline{11} \mid \overline{9} \mid \overline{7} \mid \overline{5} \mid \overline{4}$.

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Here also there should be known the horizontal bar $-$ as the universe line-point-set (jagaśreṇi pradeśa-rāśi), divided respectively by the eleventh, ninth, seventh, fifth and fourth square root [of the finger cubed point set (ghanāṅgula-pradeśa-rāśi)]. Further, among the ānata, etc., two couples, and among the lower middle upper Graiveyika, and among the Anudiśa vimāna Anuttara vimāna, ie., among these seven stations (sthānas), every one has to divine-beings (deva) given by the amount of the pit (palya) instant set as divided by the innumerate. Their symbol is $\frac{\text{pa}}{\partial}$.

Here the structure for the measure of the kalpavāsis is given as follows :

pa ॐ	pa ॐ	pa ॐ	pa ॐ	pa ॐ	pa ॐ	pa ॐ	४	५	७	९	११	३
५	९	३	३	३	१११	१११	११०	११०	११०	११०	१११	१११

Here there is the measure of divine-beings corresponding to two indras, two indras, among the first, second, seventh, eight couples. There the symbol is two, one's. There is one indra and one indra among the third, fourth and fifth couple. There is the symbol of one unity and one small circle (vindī). Again; among the three, three, lower-middle-upper Graiveyikas, there is symbol of 3. Then among the nine Anudisas there is symbol of 9. Among the five Anuttaras, there is symbol of 5. Now among the divine-being set of the sarvārtha siddhi, the symbol is 42= 42= 42= 3 | 3 vā | 7. Here ahead of the measure of the female human (munuṣyaṇī) one should know 3 and 7 as the multiple.

Again the symbol for the set of all divine-beings (deva rāṣi) is given by

$$\begin{aligned} & \parallel \\ & 1 \\ & = \sqrt[4]{4} \\ & 4 | 65 = 1 \end{aligned}$$

Here the astral-set (jyotiṣka-rāṣi) is given by $\frac{1}{4 | 65} =$. And its numerate part is the vyantara set

which is added, hence it is shown by putting ahead of the astral-set (jyotiṣka rāṣi), one added by numerate part of one, $\frac{1}{\sqrt[4]{4}}$ This becomes the multiple, getting the astral-set (jyotiṣka rāṣi)

added by the vyantara set. This amount is $\frac{1}{4 | 65} = \frac{1}{\sqrt[4]{4}}$

above which the two-sets, Bhavanavāṣi and Kalpavāṣi are shown mixed with the help of the symbol \parallel at the top, giving the symbol of set of the divine-beings.

SYMBOLISM ON SENSE-WAY-WARD (INDRIYA-MĀRGAṆA)

In the description of immersion (avagāha) of the fluent-senses (dravyendriyas) in form of finish (nirvṛtti), the immersion of ocular-sense (cakṣu-indriya) is 6 pa .

Here 6 denotes finger-cubed-point-set (ghanāṅgula)

pradeśa rāṣi) which is multiplied by the innumerate part of part (palya), ie. pa further, in the denominator are the innumerate part of part pit (palya) numerate, $\sqrt[4]{4}$; and again numerate $\sqrt[4]{4}$ and innumerate part of

pit (palya) as increased by unity, $\frac{1-}{\partial}$
 $\frac{pa}{\partial}$

Numerate times the preceding is the immersion (avagāha) of audio-sense (śrotra-indriya). There the multiple numerate and denominator are cancelled getting the symbolism as $\frac{6}{\partial} pa$.

$\frac{1-}{\partial} \frac{pa}{\partial} \frac{pa}{\partial}$

This amount is divided by innumerate part of pit (palya), one part there of in excess of it is the immersion of the olfactory-sense (ghrāṇa-indriya).

There the divisor of innumerate part of pit (palya), as well as one in excess becomes the multiple, on cancellation of which the symbolism becomes.

$\frac{6}{\partial} \frac{pa}{\partial}$

Again, on multiplying this by innumerate part of pit (palya), we get the immersion (avagāha) of flavour-sense (jihvā-indriya). Hence on cancellation we get the numerate part of finger-cubed point-set (ghanāṅgula pradeśa rāśi) as $\frac{6}{\partial}$.

Again, the minimal immersion (avagāha) of touch-sense (sparśana-indriya) is

$\frac{6}{\partial} \frac{8}{\partial} \frac{22}{\partial}$
 $\frac{1-}{\partial} \frac{pa}{\partial} \frac{19}{\partial} \frac{8}{\partial} \frac{9}{\partial} \frac{8}{\partial} \frac{22}{\partial} \frac{7}{\partial} \frac{9}{\partial}$

And maximal immersion is

$\frac{6}{\partial} \frac{7}{\partial} \frac{7}{\partial} \frac{7}{\partial} \frac{7}{\partial} \frac{7}{\partial}$

Here, the measure of minimal and maximal immersion (avagāha) of body as stated in the chapter on bios-aggregate or class (jīva-samāsa) is the same as this.

Now, about the number of bios (jīvas), the symbol for one-sensed-set (ekendriya-rāśi) is $13 -$, Here 13 is the set of mundane-bios (saṁsārī-jīva-rāśi), from which the set of the mobile-bios (trasa-jīva-rāśi) is subtracted and denoted by horizontal bar '-' ahead of it.

Now this is divided by the symbol for numerate, 5, and the major part there of is $\frac{13 - 4}{5}$

One part there of is $13 - 1$

$\frac{5}{5}$ which denotes the set of non-developable bios-set (aparyāpta-jīvarāśi). This is also written as $\frac{13 - 1}{5}$

Further the one-sensed (ekendriya) general-set (śamānya-rāśi) is divided by 9 , the symbol of innumerate-universe (asamkhyāta loka) point-set (pradeśa-rāśi), and one part there of is the symbol

$$\frac{13 - 1}{9}$$

which is the set of gross-one-sensed-bios-set (bādara ekendriya rāśi). The major part there of is the symbol $13 - 8$ which is the set of fine (sūkṣma)

$$9$$

Further the set of gross one-sensed bios-set (bādara ekendriya rāśi) is divided by innumerate-universe (asamkhyāta loka) point-set (pradeśa-rāśi), 7 , and major part there of is the set of the non-developable bios-set (aparyāpta jīva-rāśi) symbolised as $13 - 6$. The one part there of is $13 - 1$

$$9 \mid 7$$

$$9 \mid 7$$

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which is the set of the developable (paryāpta)

Again the fine one-sensed bios-set (sūkṣma ekendriya jīva rāśi) is divided by 5 the symbol for the numerate here getting the major part there of as $13 - 8 \mid 4$ which denotes the set $9 \mid 5$

of the developable (paryāpta-rāśi) and one part there of $13 - 8$ is the symble of the non-developable-set (aparyāpta-rāśi)

$$9 \mid 5$$

paryāpta 13 – 4 5		ekendriya 13 – 1		aparyāpta 13 – 1 5	
bādara 13 – 9			sūkṣma 13 – 8 9		
paryāpta 13 – 9 7	aparyāpta 13 – 6 9 7		paryāpta 13 – 8 4 9 5	aparyāpta 13 – 8 9 5	

Again, the symbol for general mobile bios-set (trasa-jīva rāśi) is

$$\frac{=}{4}$$

$$\partial$$

Here the innumerate part of finger-squared (pratarāṅgula), point-set (pradeśa-rāśi) is the divisor, 4 of the universe-square (jagapratara), = , point-set (pradeśa-rāśi).

$$\partial$$

Now this set is divided by 9 , the symbol of innumerate part of trail (āvalī), the amor part there of is = 8 This is divided by 4 , getting = 8

$$4 \mid 9$$

$$4 \mid 9 \mid 4$$

$$\partial$$

$$\partial$$

Of this each equal part is to be given to the two-sensed-the three-sensed the four-sensed, and the five-sensed. The remaining are part there of is = . This is divided by 9 , the counter part as

$$4 \mid 9$$

$$\partial$$

innumerate part of trail (āvalī), and getting the major part there of as

= 8 which is to be given to the two sensed. The remaining one part there of is
4 | 9 | 9
∂

= Which is divided by the counter part then the major part there of is
4 | 9 | 9
∂

= 8 Which is to be given to the three sensed. Again the remaining one part there of is
4 | 9 | 9 | 9
∂

= 8 which is divided by the very counter parts, and getting the major part there of as
4 | 9 | 9 | 9
∂

= 8 which is to be given to the four sensed. The remaining one part is
4 | 9 | 9 | 9 | 9
∂

= 1 which is to be given to the five sensed.
4 | 9 | 9 | 9 | 9
∂

In this way such major parts in form of equal parts are to be established above. The parts given later are to be established below as follows :

TRANSCRIPTION

nāma	bendriya (two-sensed)	tendriya (three-sensed)	cauindriya (four-sensed)	pañcendriya (five-sensed)
sama bhāga	= 8 9 9 9 4 4 9 9 9 9 ∂	= 8 9 9 9 4 4 9 9 9 9 ∂	= 8 9 9 9 4 4 9 9 9 9 ∂	= 8 9 9 9 4 4 9 9 9 9 ∂
deya bhāga	= 8 4 9 9 4 4 9 9 9 9 ∂	= 8 4 9 4 4 9 9 9 9 ∂	= 8 4 4 4 9 9 9 9 ∂	= 1 4 4 4 9 9 9 9 ∂

Again, on making the digits as mutual equi-divisions, the equiparts (samabhāgas) and given-parts (deya-bhāgar) become as below.

nāma	bendriya (two-sensed)	tendriya (three-sensed)	cauindriya (four-sensed)	pañcendriya (five-sensed)
sama bhāga	= 1 8 4 9 4 ∂	= 1 8 4 9 4 ∂	= 1 8 4 9 4 ∂	= 1 8 4 9 4 ∂
deya bhāga	= 8 4 9 9 ∂	= 1 8 4 9 9 9 ∂	= 1 8 4 9 9 9 9 ∂	= 4 9 9 9 9 ∂

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There are, digits of 9, taken four at a time in the divisor of the given part, as maximal. And among the denominator of the equiparts (samabhāgas), there is 9 once. Hence every where in the denominators, placing the digit of nine so as to have it as four times for equipartitioning, 9 is placed three times as multiple and divisor. Among the divisors of the given-set (deya-rāśi) there is no digit of 4, and there is digit of 4 in the denominator of the equiparts. Hence for making the divisors equal, everywhere in the given set we multiply & divide by 4. Again, everywhere the digit of 9 is to be four times in the divisor. And in the given-set (deya rāśi) of the two-sensed there is 9 as divisor two times hence we multiply and divide it by 9 two times. Again in the given-set of the three-sensed there is 9 three times in the denominator hence it is multiplied & divided by 9 once. In the denominator of the given-set of the four-sensed & the five-sensed there is already 9, given four times hence it is kept as it is. Hence it is the least-common multiple (samaccheda).

Again the multiple of equipart is 8, and on mutually multiplying it with 9 placed three times is 8, 9, 9, 9 or we get 5832 [fifty-eight hundred thirty-two]. And in the multiple of given-set of the two sensed, there is 8, 4, 9, 9 which are mutual multiplication produce 2592 [twenty five hundred ninety-two]. Similarly on multiply the eight, four, nine, we get 288 [two hundred and eighty-eight]. The four times 8 of the four sensed give's thirty two. For the five-sensed there is four alone.

Again among the divisor, every where the multiple of 4 is kept separate and 9 taken four times are mutually multiplied getting 6561. In this way equiparts and given parts are produced as follows :

TRANSCRIPTION

nāma	bendriya (two-sensed)	tendriya (three-sensed)	caundriya (four-sensed)	pañcendriya (five-sensed)
sama bhāga	= 5832 4 4 6561 ∂	= 5832 4 4 6561 ∂	= 5832 4 4 6561 ∂	= 5832 4 4 6561 ∂
deya bhāga	= 2592 4 4 6561 ∂	= 288 4 4 6561 ∂	= 32 4 4 6561 ∂	= 4 4 4 6561 ∂

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These equiparts and given-parts are added, getting the measure of two-sensed set etc. of bios in symbolism

TRANSCRIPTION

nāma	bendriya (two-sensed)	tendriya (three-sensed)	caundriya (four-sensed)	pañcendriya (five-sensed)
pramāṇa	= 8424 4 4 6561 ∂	= 6120 4 4 6561 ∂	= 5864 4 4 6561 ∂	= 5836 4 4 6561 ∂

The vertical bar is absent in the ASG. Cf. LDS (o), p. 71.

Again, the measure of developable mobile-bios (paryāpta-trasa jīvas) is =

4
5

Here the universe-square (jagapratara) is denoted by = , and divided by numerate part of finger-squared point-set (pratarāṅgula pradeśa rāśi). The numerate part is denoted by division by 5 as numerate.

There the division of counter-part is made as shown earlier, and major part there of as divided into four equal parts. These are be given to the three-sensed, the two-sensed, the five-sensed and to the four-sensed. Again the one part is again processed to give major part there of and given to the three-sensed, the two-sensed, & five-sensed. The one part so remaining is then given to the four sensed. Their symbolism is obtained as follows:

TRANSCRIPTION

nāma	tendriya (three-sensed)	bendriya (two-sensed)	pañcendriya (five-sensed)	caundriya (four-sensed)
sama bhāga	= 8 4 9 4 5	= 8 4 9 4 5	= 8 4 9 4 5	= 8 4 9 4 5
deya bhāga	= 8 4 9 9 5	= 8 4 9 9 9 5	= 8 4 9 9 9 9 5	= 1 4 9 9 9 9 5

There are added after converting them for equi-divisor, and the symbolism of measure of the developable-bios (paryāpta jīvas) is obtained as follows:

ASG p. 72**TRANSCRIPTION**

nāma	tendriya (three-sensed)	bendriya (two-sensed)	pañcendriya (five-sensed)	caundriya (four-sensed)
pramāṇa	= 8424 4 4 6561 5	= 6120 4 4 6561 5	= 5864 4 4 6561 5	= 5836 4 4 6561 5

Again, when this measure of developable-bios (paryāpta jīvas) is subtracted from the common (sāmānya) measure of the earlier mentioned bios, we get the measure of the non-developable-bios (aparyāpta-jīvas) in the following symbolism :

nāma	bendriya (two-sensed)	tendriya (three-sensed)	caundriya (four-sensed)	pañcendriya (five-sensed)
pramāṇa	o 5 6 20 = 8424 ∂ 4 4 6561	o 5 8424 = 6120 ∂ 4 4 6561	o 5 5836 = 5864 ∂ 4 4 6561	o 5 5864 = 5836 ∂ 4 4 6561

Here the common-set (sāmānya rāśi) is regarded as original-set (mūla rāśi), and the developable-bios set (paryāpta jīva-rāśi) is the negative set. Among these two we see the common factor as the universe-square (jaga-pratara), as divided by finger-squared (pratarāṅgula) and four times the 6561 that is,

$$= \frac{o}{4 | 4 | 6561}$$

This is written as multiple of the original set (mūla rāśi). In to it, for subtracting the multiple of the negative-set, the symbol for subtraction, the small circle, 0 is written above.

Further the divisor of the divisor becomes the multiple of the dividend. According to this logic, there was the divisor, innumerate, of the finger-squared (pratarāṅgula) which was denominator in the original-set (mūla-rāśi). That becomes the multiple of multiple of the original-set (mūla-rāśi). Again, there was digit 5 in the negative set (ṛṇa-rāśi), that becomes the multiple of the multiples of the negative set (ṛṇa-rāśi).

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SYMBOLISM ON BODY-WAY-WARD (KĀYA-MĀRGAṆĀ)

There the measure of the body of four gross, fine, earth, etc. bodied bios has been stated to be innumerate part of the finger-cubed-point-set (ghanaṅgula pradeśa-rāśi).

There the symbolism for minimal body-immersion (śarīra-avagāhanā) of fine earth bodied non-developable (aparyāpta) is given by

$$\begin{array}{ccccccc} & & & & & & 1- \\ & & & & & & \partial \\ \partial & & & & & & \\ \text{pa} & | & 19 & | & 8 & | & 8 & | & 22 & | & \text{ṛ} & | & 9 \\ \partial & & & & \partial & & & & \partial & & & & \end{array}$$

And the maximal immersion (avagāhanā) of gross-developable-earth-bodied (bādara paryāpta pṛthvī-kāyika) bios-set is

$$\begin{array}{ccccccc} & & & & & & 1- \\ & & & & & & \partial \\ \partial & & & & & & \\ \text{pa} & | & 4 & | & 8 & | & 4 & | & \text{ṛ} & | & 9 \\ \partial & & & & \partial & & & & & & \end{array}$$

etc., may be known as the symbolism for the bios-class (jīva-samāsa).

In order to find out the measure of the common-bodied (pratiṣṭhita śarīra),

1. measure set (pramāṇa-rāśi) is the maximal immersion (avagāha) of the common-bodied (pratiṣṭhita) mentioned in bios-class as

6

pa | 2 | २ | 9

∂

ii. fruit-set (phala-rāṣi) is 1

iii. requisition-set (icchā-rāṣi) is numerate finger-cubed measured one particle-multiple (skandha) as 6 २

Thence the acquisition-set (labdha-rāṣi) is innumerate part of pit (palya) as multiplied into itself [i.e., two times multiplied] and the result multiplied by the numerate, ten times :

pa | 2 | २ | 10

∂

This much measure is to be known as the common-bodied (pratiṣṭhita) body in a particle-multiple (skandha).

Again in the description of the vegetable (nigoda) bios the | symbol of the particle-multiplets (skandhas) measuring innumerate-universe (asamkhyāta-loka), is $\equiv \partial$

This is multiplied by innumerate-universe (asamkhyāta-loka) respectively, the symbolism for the measure of the aṇḍara, āvāsa, pulavī bodies : particle-multiplet (skandha)

$$\equiv \partial | \text{aṇḍara} \equiv \partial \equiv \partial | \text{āvāsa} \equiv \partial \equiv \partial \equiv \partial$$

$$\text{pulavī} \equiv \partial \equiv \partial \equiv \partial \equiv \partial \text{śarīra} \equiv \partial \equiv \partial \equiv \partial \equiv \partial \equiv \partial |$$

(i) Again the measure-set (pramāṇa-rāṣi) is measure of all vegetable bodied (nigoda śarīras) is

$$\equiv \partial \equiv \partial \equiv \partial \equiv \partial \equiv \partial$$

(ii) the fruit-set (phala rāṣi) is the vakṣyamāṇa gross vegetable (bādara nigoda) bios as 13 – 9

(iii) the requisition-set (icchā rāṣi) is 1

Thence the acquisition-set (labdha-rāṣi) is obtained which is the measure of the bios (jīvas) among the single gross-vegetable (bādara nigoda) body as

13 –

$$9 \equiv \partial \equiv \partial \equiv \partial \equiv \partial \equiv \partial$$

Again the measure-set is one instant 1.

the fruit-set is measure of one instant production or generation (upajanā) of bios living as vegetable (nigoda), i.e., innumerate-universe (asamkhyāta loka) given by $\equiv \partial$ and the requisition-set (icchā rāṣi) is the maximal time or instant-set of two and a half matter-cyclic-change (pudgala parivartana-kāla) during which the bios live as the vegetable kingdom on return (itara-nigoda) as pu 5

2

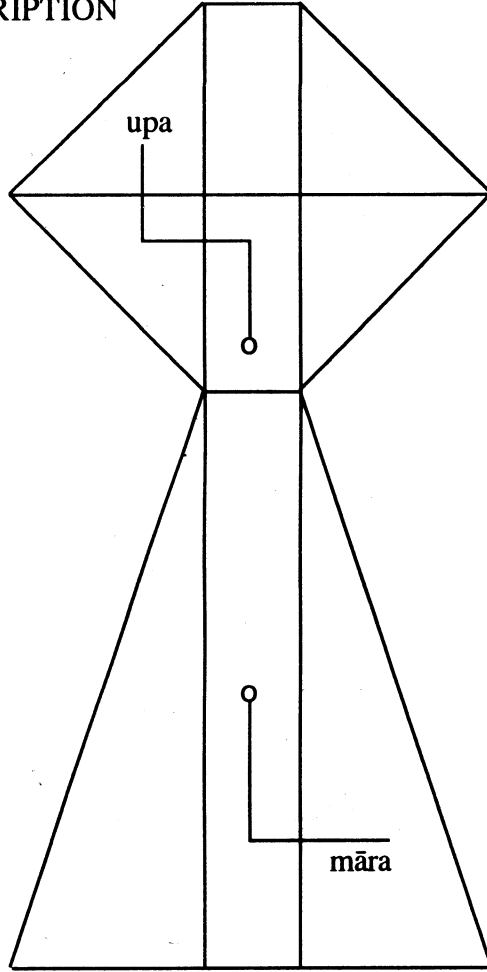
Thence the acquisition-set (labdha-rāṣi) measures the measure of the bios living as the vegetable-kingdom on return (itara-nigoda) as pu 5 $\equiv \partial |$

2

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Again, the existence of the bios, who dies and is in state of transmigration (upapāda) is found out of the mobile-bios-channel (trasa-nālī). There the symbolism is.

TRANSCRIPTION



Here, in the centre middle of the structure of universe, there is structure of the mobile-bios-channel (trasa-nālī), the symbolism in form of point-line (pradeśa-śreṇī) inside and out side the mobile-bios-channel (trasa-nālī) for the transmigrating or dying bios, is to be known.

Again about the number of the bios the fire-bodied, (agnikāya) bios-set is innumerate-universe (asamkhyāta-loka) in measure as $\equiv \partial$.

This set is divided by its counter-part measuring conformally-consistant innumerate-universe, symbolized as 9, getting one part as $\equiv \frac{\partial}{9} 1$. This part is added to the fire-bodied bios-set measure

by converting it into common-divisor (samaccheda), and we get the measure of the earth-bodied bios-set (prthvī-kāyika jīva-rāśi) as $\equiv \frac{\partial}{9} 10$

Note here how 1 and $\frac{1}{9}$ are added as separate from the common-factor.

Similarly when this set is divided by the counter part, one part is $\equiv \frac{\partial}{9} 10 \frac{1}{9}$ which when added to the set, gives the symbolism of the water-bodied (apkāyika) bios-set as $\equiv \frac{\partial}{9} 10 \frac{10}{9}$

Again, this set is divided by the counter part, one part is $\equiv \frac{\partial}{9} 10 \frac{10}{9} \frac{1}{9}$ which when mixed

into the set give the symbolism of air-bodied (vāyukāyika) bios-set as

$$\equiv \partial \mid 10 \mid 10 \mid 10$$

$$9 \quad 9 \quad 9$$

Again the single-bodied individual (apratīṣṭhita-pratyeka) bios-set is conformally consistant innumerate-universe whose symbolism is $\equiv \partial$. Innumerte universe (asamkhyāta loka) times this set is the bios-set of the common-bodied-individual (pratīṣṭhita-pratyeka), symbolized as $\equiv \partial \equiv \partial$. When both these are mixed, we get the individual vegetable-bodied (vanaspati-kāyika) bios-set

$$1—$$

$$\equiv \partial \equiv \partial$$

Here $\equiv \partial$ is taken out common and there remains the $\equiv \partial$ as increased by unity shown by 1— above the $\equiv \partial$.

Further the mobile-bios-set (trasa-rāśi) is

= When the measure of the four bios-sets ie.,
4 earth-bodied (pṛthvī-kāyika), etc., we get the
2 five-bodied bios-set (tejas kāyika) as multiplied
 ∂ by slightly greater than four. This is

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$$1— \equiv \partial \quad 4$$

Again the individual vegetable-bodied (vanaspati-kāyika) bios-set is $\equiv \partial \equiv \partial$

When the sum of those three above sets are subtracted from the set of mundane-bios (saṁsārī-jīva), we get the measure of the bios-set called symbiosis (sādhāraṇa-rāśi). This is written as $13 \equiv$. Here there is \equiv symbol ahead of 13 showing that the three sets are subtracted from the mundane-bios-set (saṁsārī-jīva-rāśi).

Again whatever measure has been stated of the earth-bodied-bios-set (pṛthvī-kāyika jīva-rāśi), etc., that is divided by 9, the symbol of innumerate-universe (asamkhyāta-loka), then the one part there of is the measure of its own gross (bādhara) bios-set. There its own general-set (sāmānya rāśi) when divided by 9 gives the symbolism.

Again remaining major part there of is the fine bios-set (sūkṣma jīva rāśi). There every one of its own set is multiplied by eight and divided by nine, getting the requisite symbolism

When the every one of its own fine (sūkṣma) bios-set measure is divided by the numerate, we get the nondevelopable (aparyāpta) bios-set as one part there of. There every one of its set is divided by five, getting the requisite symbolism. The major part there of is the developable (paryāpta) bios-set. There symbolism is obtained on multiplying the every one of its own set by four and dividing by five. The symbolism is obtained as follows:-

The non-developable-period (aparyāpta kāla) is numerate trail as 2∇ . When this is multiplied by 4, the symbol for the numerate, we get the developable-period (paryāpta kāla) as $2 \nabla 4$. When above the factor 4, we put the symbol for as increased by unity, we get the mixed-period (miśra-kāla) symbolism as

$$1—$$

$$2 \nabla 4$$

This is taken as the measure-set (pramāṇa-rāśi) everywhere. The fruit-set (phala-rāśi) is the every own fine bios-set measure. The requisition-set (icchā-rāśi) is the non-developable-period (aparyāpta kāla) in the description of the non-developable (aparyāpta). Thus through the rule of three sets (trairāśka), among the non-developable (aparyāpta) number, every one of its own fine bios-set is fine as divisor. Where as among the developable (paryāpta) number, there is multiplication by four and division by five.

ASG p. 76 Further when the universe-square (jagapratarā) ie., = is divided by the quotient obtained on dividing the finger-squared (pratarāṅgula) by innumerate part, ie., by

$$\frac{4}{pa \partial}$$

we get the symbolism for the bios-set of the gross-developable-water-bodied (bādara-paryāpta-apkāyika)

$$as = \frac{4}{pa \partial}$$

This set is divided by innumerate part of trail, denoted by the digit 9, getting the symbolism for the measure of the bios-set of the gross-developable-earth bodied (bādara-paryapta pṛthvīkayika) as =

$$\frac{4}{pa 9 \partial}$$

Similarly on writing the digit of nine as divisor ahead, we get the symbolism for the developable common-bodied-individual (paryāpta pratiṣṭhita-pratyeka), single-bodied-individuals (apraṭiṣṭhita-pratyekas).

Again the bios-set of gross-fire-bodied is trail-cubed instant-set (ghanāvalī samaya rāṣi) as divided by innumerate, getting the symbolism as

$$\partial$$

Again the bios-set of the gross-air-bodied (bādara-vāyukāyika) is the numerate part of the universe (loka) as =

$$\frac{7}{\partial}$$

Again the measure of the common-gross-bios-set (sādhāraṇa-bāara-jīva-rāṣi) is

$$\frac{13}{9} \equiv$$

This is divided by the innumerate whose symbol is the digit of 7, one part there of is, as

multiplied by unity, gives the bios-set of the developable (paryāptas) as

$$\frac{13}{9} \equiv \frac{1}{7}$$

When the major part there of is obtained on multiplying it by 6 we get the measure of the non developable (aparyāta) as

$$\frac{13}{9} \equiv \frac{6}{7}$$

Note that Ṭoḍaramala has written this as $\frac{13}{9} - \frac{6}{7}$ which appears to be wrongly taken by the scribe.

Again, when the universe-square (jagapratarā) ie. = is divided by the quotient obtained on dividing the finger-square (pratarāṅgula) point-set 4, by innumerate part of trail

$$\partial$$


we get the symbolism of the bios- set of the general mobile (sāmānya trasa) as,

$$= \frac{4}{pa \partial}$$

ASG p.77

When the universe square (jaga-pratara) is divided by numerate part of the finger square (pratarāṅgula) point set (pradeśa rāśi) we get the bios set of the developable mobile (paryāpt trasa) as = Here the symbol for the numerate is 5 or the digit of five.

4
5

Again on writing the general sets of their own measures of the gross (bādara) earth (pṛthvī), water (upa), fire (teja), air (vāyu) bodied, and the vegetable, non-vegetable individual, mobile bios and writing their own developable bios sets below alongwith a symbol of vertical crescent) denoting subtraction of the set below from the set written above, the crescent ususally being  we get the symbolism for the non-developable bios-sets. The matrix for the measure of all these is as below :

TRANSCRIPTION

sāmānya rāśi (general set)	pṛthvī kāya (earth-corpus) ≡ ∂ 10 9		apa kāya (water-corpus) ≡ ∂ 10 10 9 9		teja kāya (fire-corpus) ≡ ∂	
bādara sūkṣma rāśi (gross-fine- set)	bādara (gross) ≡ ∂ 10 9 9	sūkṣma (fine) ≡ ∂ 10 8 9 9	bādara (gross) ≡ ∂ 10 10 9 9 9	sūkṣma (fine) ≡ ∂ 10 10 8 9 9 9	bādara (gross) ≡ ∂ 9	sūkṣma (fine)
paryāpta rāśi (developed set)	≡ 49 pa ∂	≡ ∂ 10 8 4 9 9 5	≡ 4 pa ∂	≡ ∂ 10 10 8 4 9 9 9 9	8 ∂	≡ ∂ 8 4 9 5
aparyāpta rāśi (non- developed set)	≡ ∂ 10 9 9 = 4 9 pa ∂	≡ ∂ 10 8 9 9 5	≡ ∂ 10 10 9 9 9 = 4 pa ∂	≡ ∂ 10 10 8 9 9 9 9	≡ ∂ 9 8 ∂	≡ ∂ 8 1 9 5

Note : Ṭḍaramala mentions this to be 4 , where as in GJK, vol.1, p. 343, there is 1.

continued from the last page
TABLE PAGE NO. 174

TRANSCRIPTION
ASG P. 77 (ka)

vāta kāya (air-corpus) $\equiv \begin{matrix} \partial & 10 & 10 & 10 \\ 9 & 9 & 9 & 9 \end{matrix}$		pratyeka vanaspati (every-vegetable) 1- $\equiv \partial \equiv \partial$		sādhāraṇa (common) 13 \equiv		trasa (mobile) = 4 2 ∂
bādara (gross) $\equiv \begin{matrix} \partial & 10 & 10 & 10 \\ 9 & 9 & 9 & 9 \end{matrix}$	sūkṣma (fine) $\equiv \begin{matrix} \partial & 10 & 10 & 10 & 8 \\ 9 & 9 & 9 & 9 \end{matrix}$	pratiṣṭhita (common-bodied) $\equiv \partial \equiv \partial$	apraṭiṣṭhita (single-bodied) $\equiv \partial$	bādara (gross) 13 \equiv 9	sūkṣma (fine) 13 \equiv 8 9	0
\equiv $\sqrt{2}$	$\equiv \begin{matrix} \partial & 10 & 10 & 10 & 8 & 14 \\ 9 & 9 & 9 & 9 & 5 \end{matrix}$	= 4 9 9 pa ∂	= 4 9 9 9 pa ∂	13 \equiv 9 7	13 \equiv 8 4 9 5 •	= 4 5
$\equiv \begin{matrix} \partial & 10 & 10 & 10 \\ 9 & 9 & 9 & 9 & 5 \end{matrix}$ \equiv $\sqrt{2}$	$\equiv \begin{matrix} \partial & 10 & 10 & 10 & 8 \\ 9 & 9 & 9 & 9 & 5 \end{matrix}$	$\equiv \partial \equiv \partial$ = 4 9 9 pa ∂	$\equiv \partial$ = 4 9 9 9 pa ∂	13 \equiv 6 9 7	13 \equiv 8 9 5	= 4 2 ∂ = 4 pa

Note : This pa is actually 5 in the GJK vol.1, p. 347.

Again the logarithm to base two (ardhacchedas) of the five bios-sets, viz., gross, fine, single bodied individual, common bodied individual, earth, water (bādara, teja, apratiṣṭhita pratyeka, pratiṣṭhita pratyeka, pṛthvī, apa) are respectively obtained on subtracting the sea-instant-set (sāgara samaya pramāṇa rāśi) by the measures obtained on dividing the pit-instant-set (palya-samaya-rāśi) respectively once, twice, thrice, four times, five times by inumerate part of trail-instant-set (āvalī-samaya-rāśi). And about the gross-air-bodied bios-set (bādara-vāyukāyika-jīva rāśi), the measure is to be known as logarithm to base two (ardhacchedas) of complete sea-instant-set (sāgara-samaya-rāśi). Their symbolism is as follows :-

teja (fire)	apraṭiṣṭhita (single-bodied)	pratiṣṭhita (common-bodied)	pṛthvī (earth)	apa (water)	Vāyu (air)
sā - pa	sā - pa	sā - pa	sā - pa	sā - pa	sā
9	9 9	9 9 9	9 9 9 9	9 9 9 9 9	

Note : Here the sign for subtraction is $-$, for subtracting the bios-sets, namely fire-bodied, etc. from the sea-instant set (sāgara-samaya-rāśi). The measure of sā is written there is the symbol for subtraction, $-$, and then ahead is the pa, the symbol for pit-instant-set (palya-samaya-rāśi) and the symbol below is 9 which is a digital symbol denoting division of trail (āvalī) by the divisor 9, once, twice, thrice, four times and five times respectively.

Again, regarding the excess of logarithm to base two (ardhacchedas) among the single-bodied individual (apratīṣṭhita-pratyeka) bodies in excess of those of the fire-bodied bios-set, we have the following symbolism :

ASG p. 78

apratīṣṭhita (single-bodied)	pratiṣṭhita (common-bodied)	prthvī (earth)	jala (water)	vāta (air)
pa 8 9 9	pa 8 9 9 9	pa 8 9 9 9 9	pa 8 9 9 9 9 9	pa 1 9 9 9 9 9

Here the pit-instant-set (palya samaya-rāśi) is divided by the divisor (bhāgahāra) and the remaining one part unity is divided by the divisor, and then the major part is given into the single bodied (apratīṣṭhita) individual, etc. There the pit (palya) is multiplied by eight, and then there are divisors of counter part two, three, four, five times respectively. Again at the end one part is taken, hence there the pit (palya) and one as multiplier and the divisor is written five times.

Here the rule of three sets (trairāśika) is applied. There about the measure-set (pramāṇa rāśi), the given-set (daya-rāśi) is two, spread-set (viralāṇa rāśi) is logarithm to base two (ardhacchedas) of the universe-point-set (loka-pradeśa-rāśi), ie.,

pra de 2
vi che che che 9
∅

Again the fruit-set (phala-rāśi) is
pha ≡

Again about the requisition set (icchā-rāśi), the given-set (daya-rāśi) is two, spread-set (viralāṇa-rāśi) is the pit (palya) as divided by the divisor once. This is subtracted from the sea (sāgara), getting the requisition-set (icchā-rāśi) as

i de 2
vi s̄a - pa
9

There the spread-set (viralāṇa-rāśi) of the requisition-set (icchā rāśi) is divided by the spread-set (viralāṇa-rāśi) of the measure-set (pramāṇa-rāśi), we get

s̄a - pa
che che che 9 9
∅

which on cancellation gives slightly less than numerate pit (palya) as divided by logarithm to base two (ardhacchedas) of universe (loka) :

pa 7 -
che che che 9
∅

These many of the universes are placed and mutually multiplied. There become innumerate-universe (asamkhyāta-loka) on mutual multiplication of the universes which are original-set (mūla-rāṣi) in measure. Its symbolism is $\equiv \partial$.

ASG p. 79 When the negative-set measure of universes (lokas) are mutually multiplied, we get innumerate-universe (asamkhyāta-loka) which a small amount. Hence its symbol is taken as the digit of 9 , and division is made by it, getting the measure of gross-fire-bodied-bios-set (teja-kāyika-jīva-rāṣi) as $\equiv \partial$. Similar rule of three sets (trairāṣika) is to be applied for others.

ASG p. 79

SYMBOLISM ON VOLITION WAY-WARD (YOGA MARGAṆĀ)

There are five types of bodies macro (audārika) transformable (vaikriyaka), assimilating (āhāraaka), phosphorescent (taijasa), karma-finishing (kārmāṇa). The instant-effective bonds of the bodied will be given. Moreover the immersion (avagāhanā) of the instant-effective bond in relation to bodies, as well as immersion of the variform (vargaṇā) in relation to the bodies is given as follows :*

TRANSCRIPTION

NĀMA	AUDĀRIKA (physical)	VAIKRIYAKA (transformable)	ĀHĀRAKA (assimilating)	TAIJASA (phosphorescent)	KĀRMĀṆA (functional-finishing)
SAMAYA PRABADDHA	sa	sa $\bar{\partial}$	sa $\bar{\partial} \mid \bar{\partial}$	sa $\bar{\partial} \bar{\partial}$ kha	sa $\bar{\partial} \bar{\partial}$ kha kha
ŚAMAYA PRABADDHA KĪ AVAGĀHANĀ	6 2 ∂	6 2 2 $\partial \partial$	6 2 2 2 $\partial \partial \partial$	6 2 2 2 2 $\partial \partial \partial \partial$	6 2 2 2 2 2 $\partial \partial \partial \partial \partial$
VARGAṆĀ KĪ AVAGĀHANĀ	6 2 2 $\partial \partial$	6 2 2 2 $\partial \partial \partial$	6 2 2 2 2 $\partial \partial \partial \partial$	6 2 2 2 2 2 $\partial \partial \partial \partial \partial$	6 2 2 2 2 2 2 $\partial \partial \partial \partial \partial \partial$

Commentary

In case of the macro-body (audārika-śarīra), the instant-effective-bond (samaya prabaddha) is given by the symbol sa or स in Devanāgarī.

For the transformable body the preceding is multiplied by innumerate part of the world-line (jagaśreṇī) ie. by $\bar{\partial}$ so that it becomes sa $\bar{\partial}$. Similarly the following for assimilating one is obtained by multiplying the preceding by $\bar{\partial}$ so that one gets sa $\bar{\partial} \bar{\partial}$. When this amount is multiplied by the infinite kha , one gets the phosphorescent sa $\bar{\partial} \bar{\partial}$ kha . Similarly, when this is again multiplied by kha one gets for the karma-finishing, sa $\bar{\partial} \bar{\partial}$ kha kha .

* Cf. GJK, vol.1, p. 381 et seq. Note that the symbols sa & kha are not written in line with the used line, and this is not correct in the original ASG & GJK.

Now the sa and kha in the texts have been written in line of ँ , actually they should have been written in the line of the world line.

Again the finger-cubed point set (ghanāṅgula-pradeśa-rāśi) is 6 which is divided once, twice, thrice, four times and five times by innumerate part of the linear-finger-point-set (sūcyaṅgula-pradeśa-rāśi), ie. by 2 . This gives the measure of immersion (avagāhanā) of the instant-effective-bond

ॐ .

(samaya-prabaddha). Again the finger-cubed (ghanāṅgula) point set is 6 which is divided by innumerate part of linear-finger (sūcyaṅgula) point-set given by 2 . Once, twice, thrice, four times, five times and

ॐ

six times respectively giving the measure of immersion of the variforms (vargaṇās) of the macro-body (audārika śarira), etc.

Again about the measure of natural-accumulation (viśrasopacaya), the measure-set (pramāṇa-rāśi) is pra 1 ; fruit-set (phala-rāśi) is infinite times the bios-set (jīva rāśi), ie. pha 16 kha ; requisition-set (icchā-rāśi) is instant-effective-bond (samaya-prabaddha) as multiplied by slightly less, one and half geometric-regression (kiñcidūna dvyardha guṇahāni)

i sa ॐ 12 -

There the acquisition-set is to be known as natural-accumulation of ultimate-particles (viśrasopacaya-paramāṇus) as

sa ॐ 12 - 16 kha

Again the table for symbolism of fluent (dravya), life-time (sthiti), geometric-regression (guṇahāni), various-geometric-regression (nānā-guṇahāni), two geometric-regression (do-guṇahāni), mutual-product-set (anyonyābhyasta rāśi) of the macro-body (audārika-sarīra), etc., is as follows :

NĀMA (name)	AUDĀRIKA (physical)	VAIKRIYIKA (transformable)	ĀHĀRAKA (assimilating)	TAIJASA (phosphorescent)	KĀRMĀṆA (functional- finishing)
DRAVYA (fluent)	sa	— sa ॐ	— — sa ॐ ॐ	— — sa ॐ ॐ kha	— — sa ॐ ॐ kha kha
STHITI (life-time)	pa 3	sā 33	2 ॐ ॐ	sā 66	sā 70 ko 2
GUṆAHĀNI-ĀYĀMA (length of geometric regression)	2 ॐ	2 ॐ	2 ॐ	pa ॐ che va che ॐ — —	pa ॐ che va che — —
NĀNĀ GUṆAHĀNI (various geon. regr.)	pa 3 2 ॐ	sā 33 2 ॐ	ॐ	che va che ॐ — —	che va che — —
DO GUṆAHĀNI (two geon. regr.)	2 ॐ 2	2 ॐ 2	2 ॐ 2	pa ॐ 2 che va che ॐ — —	pa ॐ 2 che va che — —
ANYONYĀBHYASTA (mutual-product)	≡ ॐ	≡ ॐ ≡ ॐ	ॐ ॐ	ka ॐ vā sū 2 ॐ	pa vā

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Here, whatever symbolism of the instant-effective-bond (samaya-prabaddha) was* stated earlier, that is to be known as the symbolism for the fluent (dravya). Again the life-time (sthiti) of the macro-body (audārika śarīra) is three pits (palyas), pa 3 ; that of the transformable (vaikriyika) body is thirty-three seas (sāgaras), sā 33 ; that of the assimilative-body (āhāraka śarīra) is trail (āvalī) as multiplied by numerate two times, 2 २ २ ; that of phosphorescent body (taijasa-kāya) is sixty-six seas (sāgaras), sā 66 ; that of the karma-finishing (kārmāṇa) body is seventy crore squared seas (sāgara) relative to charm (moha), sā 70 ko 2.

Again the geometric-regression-length of the three macro-body (audārika śarīra), etc., is inter-muhūrta (antar-muhūrta), 2 २ ; that of the phosphorescent-body (taijasa śarīra) and karma-finishing-body (kārmāṇa śarīra) is numerate pit (palya) which is their own life-time, pa २ , as divided by their own various-geometric-regression (nānā-guṇahāni); that of assimilative-body (āhāraka śarīra) is numerate, २ ; that of phosphorescent-body (taijasa-śarīra) is obtained on multiplying by innumerate, ∂ , the difference set obtained by subtracting logarithm to base two (ardhaccheda) of logarithm of logarithm to base two (varga-śalākā) of pit (palya) from logarithm to base two (ardhaccheda) of pit (palya) instant-set (samaya-rāśi). This is shown by che $\underbrace{\quad}$ va che ∂ ;

where che denotes logarithm to base two (ardhaccheda) of pit (palya), from which is subtracted va che which denots logarithm to base two (ardhaccheda) of logarithm of logarithm to base two (vargaśalākā) of pit (palya). The sign of subtraction is denoted by crescent symbol. Here ∂ is the innumerate.

Again whatever the symbol for geometric-regression (guṇahāni), in the two-geometric-regression (do-guṇahānis) it is multiplied by two, and hence two as the digital symbol is placed ahead of it.

Further, regarding the mutual-product-set (anyonyābhyasta-rāśi), the measure of macro (audārika) is innumerate-universe (asaṁkhyāta loka), $\equiv \partial$; that of the transformable (vaikriyika) is $\equiv \partial \equiv \partial$ which innumerate-universe (asaṁkhyāta loka) times the preceding; that of the assimilative (āhāraka) is numerate times numerate, २ २ ; that of the phosphorescent-body (taijasa-kāya) is linear finger (sūcyaṅgula) point-set (pradeśa-rāśi) as divided by the innumerate, 2 , of which on reduction we get ∂

innumerate times the cycle of two aeons (kalpa kāla) denoted by ka ∂ ; that of the karma-finishing-body (kārmāṇa-kāya) is pit (palya) as divided by its own logarithm of logarithm to base two (vargaśalākās), denoted by pa symbolism.

va

Here there is simple symbolism of the application of the rule of three sets (trairāśika), etc., in the geometric-regression (guṇahāni), various-geometric-regression (nānā guṇahāni) and mutual-product-set (anyonyābhyasta-rāśi). Hence each of its own geometric-regression length (guṇahāni-āyāma) is made the measure-set (pramāṇa-rāśi), one is made the fruit-set (phala rāśi), and each of its own life-time is made the requisition-set (icchā-rāśi). This is how various-geometric-regression-set (nānā-guṇahāni-rāśi) of macro-body (audārika-śarīra) etc. are obtained as, acquisition-set (labdha-rāśi) separately.

This is shown as follows through tabular illustration of symbolism :

TRANSCRIPTION **ASG P. 82**

nāma (name)	pramāṇa guṇahāni (measure-geom. regr.)	phala eka (fruit one)	icchā sthiti (requisition life-time)	labdha nānā guṇahāni (acquisition various geom. regr.)
audārika (physical body)	2 ॐ	1	pa 3	pa 3 2 ॐ
vaikriyika (transformable body)	2 ॐ	1	sā 33	sā 33 2 ॐ
āhāraka (assimilating body)	2 ॐ	1	2 ॐ ॐ	ॐ
taijasa phosphorescent body	sā 66 che va che ॐ	1	sā 66	che va che ॐ
kārmāṇa (functional finishing body)	sā 70 ko 2 che va che	1	sā 70 ko 2	che va che

In place of a single crescent, two crescents have been used in the print, meaning the same subtraction as detailed above.

Again their own various-geometric-regression-set (nānā-guṇahāni-rāśi) is made the measure-set (pramāṇa-rāśi), their own life-time (sthiti) is made the fruit-set (phala-rāśi), and unity is made the requisite-set (icchā rāśi) for obtaining the measure of geometric-regression-length (guṇahāni-āyāma) of macro-body (audārika-śarira), etc. bodied. This is as follows :

nāma (name)	pramāṇa nānā-guṇahāni (measure of various geom. regression.)	phala sthiti (fruit-life- time)	icchā eka (requisition- one)	labdha guṇahāni āyāma (acquisition length of geom. regression.)
audārika (physical)	pa 3 2 ॐ	pa 3	1	2 ॐ
vaikriyika (transformable)	sā 33 2 ॐ	sā 33	1	2 ॐ
āhāraka (assimilating)	ॐ	2 ॐ ॐ	1	2 ॐ
taijasa phosphorescent	che va che ॐ	sā 66	1	sā 66 che va che ॐ
kārmāṇa (functional finishing)	che va che	sā 70 ko 2	1	sā 70 ko 2 che va che

For finding out the measure of the mutual-product-set (anyonyābhyāsta-rāśi), we have to apply the rule of three sets :

(i) the measure-set (pramāṇa-rāśi) is obtained from given-set (deya rāśi) as two, and spread-set (viralana-rāśi) as logarithm to base two (ardhaccheda) of universe (loka)

$$\begin{array}{ccccccc} \text{pra} & \text{de} & 2 & & & & \\ \text{vi} & \text{che} & \text{che} & \text{che} & 9 & & \\ & & & & & \partial & \end{array}$$

(ii) fruit-set (phala-rāśi) is the universe (loka) point-set as
pha \equiv

(iii) requisition-set (icchā rāśi) is obtained from the given-set (deya-rāśi) as two, and the spread-set (viralana-rāśi) as three pit (palya) as divided by inter muhūrta (antar-muhūrta)

$$\begin{array}{cccc} \text{i} & \text{de} & 2 & \\ & \text{vi} & \text{pa} & 3 \\ & & 2 & \text{३} \end{array}$$

There on dividing the spread-set (viralana-rāśi) of the requisition-set (icchā rāśi) by the spread-set (viralana rāśi) of the measure-set (pramaṇa rāśi), we get

$$\begin{array}{ccccccc} & \text{pa} & 3 & & & & \\ 2 & \text{३} & \text{che} & \text{che} & \text{che} & 9 & \\ & & & & & \partial & \end{array}$$

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As many universes (lokas) as above are placed and mutually multiplied, getting innumerate-universe (asamkhyāta-loka) as $\equiv \partial$. This is the mutual-product-set (anyonyābhyāsta-rāśi) of the macro-body (audārika śarīra). Similarly on having divided the various-geometric-regression (nānā guṇahāni) by the logarithm to base two (ardhaccheda) of universe (loka) point-set, we get

$$\begin{array}{ccccccc} \text{sā} & 3 & 3 & & & & \\ 2 & \text{३} & \text{che} & \text{che} & \text{che} & 9 & \\ & & & & & \partial & \end{array}$$

this amount of universes are placed and mutually multiplied which results in the mutual-product-set (anyonyābhyasta rāśi) as $\equiv \partial \equiv \partial$.

Or the mutual-product-set (anyonyābhyasta rāśi) of the transformable-body (vaikriyika-śarīra) can also be obtained as follows: the spread-set (viralana rāśi) about the measure-set (pramāṇa-rāśi), is the various-geometric-regression (nānā-guṇahāni) of the macro-body :

$$\begin{array}{ccc} \text{pra} & \text{pa} & 3 \\ & 2 & \text{३} \end{array}$$

fruit-set (phala rāśi) is innumerate universe (asamkhyāta loka) pha $\equiv \partial$ and about the requisition-set (icchā rāśi) the spread-set is the various-geometric-regression (nānā guṇahāni) of the macro-body (audārika śarīra) as multiplied by ten crore-squared :

$$\begin{array}{ccc} \text{i} & \text{pa} & 3 \mid 110 \text{ ko } 2 \\ & 2 & \text{३} \end{array}$$

Here the mutual-product-set (anyonyābhyasta-rāśi) of the macro-body (audārika-śarīra) is mutually multiplied as many times as is the acquisition set obtained above, ie, one hundred ten crore squared times. This gives the mutual-product-set (anyonyābhyasta-rāśi) of the transformable body

(vaikriyika-śarīra). Hence the mutual-product-set (anyonyābhyasta-rāśi) of the transformable body (vaikriyika śarīra) is a multiple of the mutual-product-set (anyonyābhyasta-rāśi) of the macro-body (audārika-śarīra).

The mutual-product-set (anyonyābhyasta-rāśi) of the assimilative-body (āhāraka-śarīra) is obtained by mutually multiplying the dyad "two" as many times as the numerate getting २ २.

About the phosphorescent body (taijasa kāya) the various-geometric-regression (nānā guṇahāni) is
che va che ∂

This is divided by set of logarithm to base two (ardhaccheda rāśi) of pit (palya) getting
che va che ∂

che

From the above the negative as

va che ∂
che

is separated, the remaining is che ∂
che

which on cancellation give the innumerate (asamkhyāta), ie, ∂ .

This much amount of pit (palya) are placed and mutually multiplied, resulting is innumerate part of linear-finger (sūcyaṅgula) point-set as 2

∂

Again when as many twos (dvika) as is the measure of the negative set, are multiplied, we get innumerate part of pit (palya) as pa and when divides the 2 we get 2

∂

∂

∂

which when reduced we get pa only innumerate part of the linear finger (sūcyaṅgula)
∂

point set as the mutual-product-set of the phosphorescent-body, (taijasa-rāśi) as 2
∂ .

ASG p. 84 About the karma-finishing (kārmāṇa) body the various-geometric-regression (nānā guṇahāni) is che va che . There the square-root set (mūla-rāśi) is the logarithm of pit (palya) to base

two, ie. che which when raised as power of two, we get pit (palya). It is multiplied by the quantity obtained on mutually multiplying as many two's as is the set of logarithm to base two (ardhaccheda) of logarithm of logarithm to base two (varga-śalākā) of pit (palya) which is the negative set, we get logarithm of logarithm to base two (vargaśalākā) of pit (palya), when it divides, we get the mutual-product-set (anyonyābhyasta-rāśi) of the karma-finishing (kārmāṇa) body as pa .
va

That is how the solutions are obtained.

Now here the structure is described : The karma-finishing (kārmāṇa) instant-effective-bond (samaya prabaddha) fluent is sa ∂ ∂ kha kha
which is now abbreviated as sa.

Again the symbol of the mutual product-set (anyonyābhyasta-rāśi) is in the form of the initial alphabet as | a |

In this way structure is effected regarding second etc. geometric-regression (guṇahāni), sa
the fluent (dravya) regarding the last geometric-regression (guṇahāni) is 1—

This is divided by geometric-regression (guṇahāni),
we get the middle-sum (madhya dhana) as

sa a
1—
a gu

This is divided by two-geometric-regression (do-guṇahāni)
as reduced by half of geometric-regression (guṇahāni) as
reduced by unity, then we get the common-difference as

sa 1—
1— a gu gu 3
2

This is multiplied by two-geometric-regression (do-
guṇahāni), gu 2 , we get the first nisus (niṣeka) as

sa gu 2
1— 1—
a gu gu 3
2

From this comon-difference (caya) is reduced one by one,
and get the last nisus (niṣeka) which measures own-
common-difference (nija-caya) multiplied by geometric-
regression (guṇahāni) as increased by unity :

1—
sa gu
1— 1—
a 2 gu gu 3
2

Table for all the above is as follows :-

TRANSCRIPTION

ASG P. 86

nāma	prathama guṇahāni	dvitiya guṇahāni	madhyama guṇahāni	upānta guṇahāni	anta guṇahāni
anta niṣeka	1— sa a gu 1— 1— a 2 gu gu 3 2	1— sa a gu 1— 1— a 2 gu gu 3 2	0 0 0 0 0	1— sa 2 gu 1— 1— a gu gu 3 2	1— sa gu 1— 1— a gu gu 3 2
madhya niṣeka	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
ādi niṣeka	sa a gu 2 1— 1— a 2 gu gu 3 2	sa a gu 2 1— 1— a 2 2 gu gu 3 2	0 0 0 0 0	sa 2 gu 2 1— 1— a 2 gu gu 3 2	sa gu 2 1— 1— a gu gu 3 2
sarva dravya pramāṇa	sa a — a 2	sa a 1— a 2 2	0 0 0 0 0	sa 2 a 1— a 2	sa 1— a

NOTE that Ṭoḍaramala ASG, p. 86, in prints have 1— and 1— in place of 1— . and 1—
gu 3 a 2 gu 3 a 2
2 2

Then sa is divided by a as reduced by unity getting $\frac{sa}{1-a}$
 a

Again, becoming twice, twice, twice, in sequence, half of the mutual-product-set (anyonyābhyasta rāṣi) is $\frac{1}{2} a$
 2

when the fluent (dravya) of the last geometric regression (guṇahāni) is multiplied by $\frac{a}{2}$
 we get the fluent (dravya) of first geometric-regression (guṇahāni) becomes. $\frac{sa}{1-a} \cdot \frac{a}{2}$

This is divided by the symbol gu the initial alphabet of the geometric-regression (guṇahāni) we get the middle sum (madhya dhana) as $\frac{sa}{1-a} \cdot \frac{a}{2} \cdot gu$

Again, two-geometric-regression (do-guṇahāni) as subtracted by half of geometric-regression (guṇahāni) is decreased by unity is $\frac{1}{2} gu$. Here on subtracting half geometric-regression
 2

(guṇahāni) from two-geometric-regression (do-guṇahāni) one gets one and half geometric-regression (guṇahāni) as $\frac{3}{2} gu$. Further there was half of the reduced unity in the negative of
 2

negative half geometric-regression (guṇahāni), for it the symbol has been made as increased by unity.

ASG p. 85 On observing the divisor two below for making the set positive. Hence dividing that middle-sum (madhya dhana) by this, we get the common-difference (caya) corresponding to the first geometric-regression (guṇahāni) as

$$\frac{sa}{1-a} \cdot \frac{a}{2} \cdot gu \cdot \frac{1}{2} gu \cdot \frac{3}{2}$$

This is multiplied by [nisus-divisor (niṣekahāra)] two-geometric-regression (do guṇahāni) as gu^2 , getting the first nisus (niṣeka) of the first geometric-regression (guṇahāni) as

$$\frac{sa}{1-a} \cdot \frac{a}{2} \cdot gu^2 \cdot \frac{1}{2} gu \cdot \frac{3}{2}$$

From the common difference (caya) is subtracted one by one, when the own common-difference (caya) is multiplied by a geometric-regression (guṇahāni) as increased by unity, $1 -$, we get the last nisus (niṣeka) as

$$\frac{sa}{1-a} \cdot \frac{a}{2} \cdot gu \cdot \frac{1}{2} gu \cdot \frac{3}{2}$$

Here on dividing the fluent (dravya), nisus (niṣeka), etc., of the first geometric-regression (guṇahāni), we get the fluent (dravya) etc., of second geometric-regression (guṇahāni). When the fluent (dravya), etc., of the last geometric-regression (guṇahāni) is multiplied by two, we get the fluent (dravya) etc. about the last-but-one geometric-regression (guṇahāni). Small circular symbols have been given to fill up the gaps of the fluent (dravya) etc., of the middle geometric-regression (guṇahānis).

Further the structure of the fluent (dravya), nisusus (niṣekas) etc., have been written through numerical-symbolism (aṅka-saṁdṛṣṭi); and the structure of the triangular matrix (trikoṇa yantra) relative to numerical symbolism for showing the state (sattva) of functionals (karmas), have been given in the commentary (cf. GJK (0). p. 568).

In the triangular matrix (trikoṇa yantra), whatever are the forty-eight rows. From below, in them, one should know one, one nisus (niṣeka) corresponding to one, one instant (samaya), in form of one, one row.

The aggregate (samūha) of eight-rows is denominated as geometric-regression (guṇahāni). Hence here, the summation of the triangular-matrix (trikoṇa-yantra) is stated. There first description is given relative to reduced sumamtion (hīna-saṅklana).

ASG p. 87

The first geometric-regression (guṇahāni) is inform of eight rows from below, in which whatever nisusus (niṣekas) in the second, etc., rows, are reduced, their measure to be subtracted is in form of negative measure which when mixed we get the sum of the geometric-regression (guṇahāni) ammounting to the instant-effective-bond (samaya-prabaddha) as multiplied by the geometric-regression (guṇahāni), because the sum of the first row is instant-effective-bond (samaya prabaddha). On addition of the negative, the sum of other rows also becomes equal to this. Hence the measure of the geometric-progression is eight by which the instant-effective-bond (samaya-prabaddha) is multiplied, getting 6300.

Now what amount of the negative is to be subtracted from this amount is described below :

The first-nisus (prathama niṣeka) is geometric-regression (guṇahāni) as reduced by unity 512 | 7. Second-nisus (dvitiya-niṣeka) is geometric-regression (guṇahāni) as reduced by two 512 | 6 . Similarly third, etc., nisusus, are obtained on reduction by unity and unity respectively. The measure of the last but one nisus (dvicarama-niṣeka) is unity. This one nisus is reduced in rows, amounting to one geometric-regression (guṇahāni). Every where the last-nisus (anta niṣeka) is existent. Hence in the second-nisus (dvitiya-niṣeka), etc., whatever are the amounted of the own common-differences (cayas) they are added, getting all the nisusus (niṣekas) equal to the first-nisus (prathama-niṣeka), as follows :

512 | 7

512 | 6

512 | 5

512 | 4

512 | 3

512 | 2

512 | 1

Their sum happens to be the summation (saṅkalana) once of number of terms (gaccha) as reduced by unity, ie, the sum happens to be equal to the measure of first-nisus (prathama-niṣeka). Hence, here the measure of number of terms (gaccha) is eight, hence relative to the formula, "vyekapadottara ghataḥ" etc., quoted in the jñāna-mārgaṇā chapter in the commentary, the number of terms (gaccha) as reduced by unity is divided by two, where as the complete number of terms (gaccha) is divided by one, log both of these, the first-nisus (prathama niṣeka) here is 512 which is multiplied, getting the sum as

$$\begin{array}{r} 1 \text{—} \\ 512 \mid 8 \quad 8 \\ 2 \quad 1 \end{array}$$

ASG P. 88

Further whatever common differences (cayas) has been added here, are to be subtracted as they were are as follows :

$$32 \mid 21$$

$$32 \mid 15$$

$$32 \mid 10$$

$$32 \mid 6$$

$$32 \mid 3$$

$$32 \mid 1$$

Here no nīsus (niṣeka) has been reduced in the first row (panktī). In the second row, one nīsus has been reduced, where no common-difference (caya) has been added.

In the third row, one first, one second nīsus (dvitīya niṣekas). It reduced in to which, in the second-nīsus (dvitīya niṣeka) one common difference (caya) has been added which has been noted. In the fourth row, one first, one second, one third-nīsus (tṛtīya-niṣeka) get reduced, where in the second-nīsus (dvitīya-niṣeka) is written one common difference (caya) in the third-nīsus (tṛtīya-niṣeka) is written two common-difference (cayas) thus these three-common-differences (cayas) have been written. Similar is to be known above.

Hence the sum of the above happens to be the measure of common-difference (caya) amounting to two times summation of number of terms (gaccha) as reduced by unity. Hence according to summation (saṅklana) formula, the measure of common-difference (caya), ie, 32, is multiplied by number of terms (gaccha) as reduced by two, number of terms (gaccha) as reduced by unity, and number of terms (gaccha), as well as divided by three, two, are respectively getting.

$$\begin{array}{r} 2\text{—}1\text{—} \\ 32 \quad 8 \quad 8 \quad 8 \\ \quad 3 \quad 2 \quad 1 \end{array}$$

Note : There is misprint in ASG, where 1— has been written in place of 2— in the second column. Further the negative-fluent (ṛṇa dravya) mentioned earlier is as

$$\begin{array}{r} 1\text{—} \\ 512 \mid 8 \mid 8 \\ \quad 2 \quad 1 \end{array}$$

There the first-nīsus (prathama niṣeka) is factorized through two-geometric-regression (do guṇahāni) as 8 | 2 , we get therefore in place of 51 2 , the amount 32 | 8 | 2 and the about amount becomes :

$$\begin{array}{r} 1\text{—} \\ 32 \mid 8 \mid 2 \mid 8 \mid 8 \\ \quad 2 \quad 1 \end{array}$$

Here the multiplier and divisor are multiplied by 3 for the purpose fo symbolism as

$$\begin{array}{r} 1\text{—} \\ 32 \mid 8 \mid 6 \mid 8 \mid 8 \\ \quad 3 \quad 2 \quad 1 \end{array}$$

Here six geometric-regression (guṇahānis) are 8 | 6 into which the measure of multiplication, by one geometric-regression (guṇahāni) is as follows :

$$\begin{array}{r} 1\text{---} \\ 32 \mid 8 \mid 8 \mid 8 \\ 3 \quad 2 \quad 1 \end{array}$$

ASG P. 69

In this, the negative (ṛṇa) of negative (ṛṇa) in form of addition of the common-differences (cayas) fit to be subtracted

$$\begin{array}{r} 2\text{---} \quad 1\text{---} \\ 32 \mid 8 \mid 8 \mid 8 \\ 3 \quad 2 \quad 1 \end{array}$$

which is subtracted. Hence observing other equivalent, there was multiplier of the geometric-regression (guṇahānis) eight ahead of thirty-two, from which this multiplier as geometric-regression (guṇahāni) as reduced by two is subtracted, there then remains the multiplier as two, thence becomes as

$$\begin{array}{r} 1\text{---} \\ 32 \mid 2 \mid 8 \mid 8 \\ 3 \quad 2 \quad 1 \end{array}$$

This amount is to be added into the measure remaining as of five geometric-regressions (guṇahānis) when one geometric-regression (guṇahāni) was subtracted from six geometric-regressions (guṇahānis), given by

$$\begin{array}{r} 1\text{---} \\ 32 \mid 8 \mid 5 \mid 8 \mid 8 \\ 3 \quad 2 \quad 1 \end{array}$$

on observing other all similar, excess of two is made above five geometric-regressions (guṇahānis), and on mutually multiplying the divisors, the negative (ṛṇa) regarding the first-geometric-regression (prathama-guṇahāni) becomes as

$$\begin{array}{r} 2\text{---} \quad 1\text{---} \\ 32 \mid 8 \mid 5 \mid 8 \mid 8 \\ 6 \end{array}$$

In this way the positive (dhana) and the negative (ṛṇa) corresponding to the first-geometric-regression (prathama guṇahāni) are to be known.

Again the sum (dhana) of the first-geometric-regression (pratham guṇahāni) is as 6300 | 8 from which the positive (dhana) of the last-geometric-regression (anta guṇahāni) is subtracted, ie. 100 | 8 is subtracted, getting the remainder as 6200 | 8 whose half is as 3100 | 8 which is to be known as the positive (dhana) of the second-geometric-regression (dviṭīya-guṇahāni).

Similarly, for all those above also, the positive (dhana) of all-geometric-regressions (sarva-guṇahāni) are to be known as.

$$\begin{array}{r} 100 \mid 8 \\ 300 \mid 8 \\ 700 \mid 8 \\ 1500 \mid 8 \\ 3100 \mid 8 \\ 6300 \mid 8 \end{array}$$

Here corresponding to the positive (dhana) of each one of geometric-regressions, the positive (dhana) of the last-geometric-regression (carama-guṇahāni) is the negative (rṇa) as 100 | 8 | 2, is added and factorized through two, getting the positive, (dhana) as

ASG p. 90

$$100 | 8 | 2$$

$$200 | 8 | 2$$

$$400 | 8 | 2$$

$$800 | 8 | 2$$

$$1600 | 8 | 2$$

$$3200 | 8 | 2$$

On applying the formula "anta dhanaṁ guṇa guṇyaṁ", etc., we get the last-sum (anta-dhana) as 3200 | 8 | 2 which is multiplied by the multiplier two, getting 6400 | 8 | 2, from which the initial (ādi) 100 | 8 | 2 is subtracted, getting the positive (dhana) of all the geometric-regression as 6300 | 8 | 2.

Further negative (rṇa) of second, etc., geometric-regressions (guṇahānis) is also half, half respectively, which happens to be as follows :

$$\begin{array}{r} 2 \text{ — } 1 \text{ — } \text{—} \\ 1 | 8 | 5 | 8 | 8 \\ 6 \end{array}$$

$$\begin{array}{r} 2 \text{ — } 1 \text{ — } \text{—} \\ 2 | 8 | 5 | 8 | 8 \\ 6 \end{array}$$

$$\begin{array}{r} 2 \text{ — } 1 \text{ — } \text{—} \\ 4 | 8 | 5 | 8 | 8 \\ 6 \end{array}$$

$$\begin{array}{r} 2 \text{ — } 1 \text{ — } \text{—} \\ 8 | 8 | 5 | 8 | 8 \\ 6 \end{array}$$

$$\begin{array}{r} 2 \text{ — } 1 \text{ — } \text{—} \\ 16 | 8 | 5 | 8 | 8 \\ 6 \end{array}$$

$$\begin{array}{r} 2 \text{ — } 1 \text{ — } \text{—} \\ 32 | 8 | 5 | 8 | 8 \\ 6 \end{array}$$

ASG p. 91

Here the multiplicand (guṇya) has been halved continuously, hence applying the formula, "antadhāṇaṁ guṇa guṇyaṁ", etc., the last positive (anta dhana) becomes

$$\begin{array}{r} 2 \text{ — } 1 \text{ — } \text{—} \\ 32 | 8 | 5 | 8 | 8 \\ 6 \end{array}$$

which is multiplied by the multiplier two, getting

$$\begin{array}{r} 2 \text{ — } 1 \text{ —} \\ 64 \mid 8 \mid 5 \mid 8 \mid 8 \\ 6 \end{array}$$

From the above, the initial as

$$\begin{array}{r} 2 \text{ — } 1 \text{ —} \\ 1 \mid 8 \mid 5 \mid 8 \mid 8 \\ 6 \end{array}$$

is to be subtracted, for which from the multiplicand (guṇya) sixty-four is subtracted one multiplicand (guṇya), thus the negative of all geometric-regressions is

$$\begin{array}{r} 2 \text{ — } 1 \text{ —} \\ 63 \mid 8 \mid 5 \mid 8 \mid 8 \\ 6 \end{array}$$

Again, the second multiplicand (guṇya) which is added to six geometric-regressions (guṇahānis) later, is as

$$100 \mid 8$$

$$100 \mid 8$$

$$100 \mid 8$$

$$100 \mid 8$$

$$100 \mid 8$$

$$100 \mid 8$$

The sum of this is the amount of the last-geometric-regression (anta-guṇahāni) as multiplied by various-geometric-regression (nānā-guṇahāni) as

$$100 \mid 8 \mid 6$$

In this way the three sets obtained are

TRANSCRIPTION

dhana (sum)	prathama ṛṇa (first negative)	dvitīya ṛṇa (second negative)
6300 8 2	$\begin{array}{r} 2 \text{ — } 1 \text{ —} \\ 32 \mid 8 \mid 5 \mid 8 \mid 8 \\ 6 \end{array}$	100 8 6

Here these are divided by maximal instant-effective-bond (samaya prabaddha) measure of counting-rods (śālākās) amountes, ie, by sixty-three hundred, getting.

TRANSCRIPTION

dhana (sum)	prathama ṛṇa (first negative)	dvitīya ṛṇa (second negative)
6300 8 2 6300	$\begin{array}{r} 2 \text{ — } 1 \text{ —} \\ 64 \mid 8 \mid 5 \mid 8 \mid 8 \\ 6 \end{array}$	100 8 6 6300

Note that in the ASG, there has appeared 1— in place of 1— in the second box, which is just a misprint.

ASG p. 92

On reduction through cancellation, we have

TRANSCRIPTION

dhana (sum)	prathama ṛṇa (first negative)	dvitīya ṛṇa (second negative)
sa ॐ 8 2	2— 1— sa ॐ 8 5 8 8 100 6	sa ॐ 8 6 63

Here corresponding to the first negative there was hundred as divisor which is factorized through three times geometric-regression (guṇahāni) as increased by unity, hence in place of hundred we write 1—

three-times geometric-regression (guṇahāni) as increased by unity as 8 | 3 which is equal to twenty five, and then ahead of it is written 4 as multiplier. The six which is ahead, is then multiplied by this four, the measure becomes only three geometric-regressions (guṇahānis). On this manipulation we get

$$\begin{array}{r}
 2— 1— \\
 \text{sa } ॐ | 8 | 5 | 8 | 8 \\
 1— \\
 8 | 3 | 8 | 3 \\
 1—
 \end{array}$$

Note that in the lower row, there is 8 | 3 in the ASG which is a misprint, similarly as above in the 5th line Here geometric-regression (guṇahāni) is 8, which is cancelled, getting the first negative as

$$\begin{array}{r}
 2— 1— \\
 \text{sa } ॐ | 8 | 5 | 8 | 8 \\
 1— \\
 8 | 3 | 3
 \end{array}$$

Note that in ASG in the second row, below there is 8 which is a misprint.

Again here there is the multiplier 8 as reduced by unity in the first row, and when the measure of the negative of the negative as multiplied by it and remaining kept separately established, we get two sets as follows :

TRANSCRIPTION

ṛṇa rāśi	ṛṇa kā ṛṇa rāśi
2— sa ॐ 8 5 8 1— 8 3 3	2— sa ॐ 8 5 1— 8 3 3

Further, among there two sets, there was two in excess above five-geometric-regressions (guṇahānis) multiplier, the measure as multiplied by it is established separately below and the remaining is established above, getting

TRANSCRIPTION

ṛṇa rāṣi $\text{sa } \partial \mid 8 \mid 5 \mid 8$ 1— $8 \mid 3 \mid 3$	ṛṇa kā ṛṇ 2— $\text{sa } \partial \mid 8 \mid 5$ 1— $8 \mid 3 \mid 3$
ṛṇa kā dhana $\text{sa } \partial \mid 2 \mid 8$ 1— $8 \mid 3 \mid 3$	$\text{ṛṇa ke ṛṇa kā dhana}$ $\text{sa } \partial \mid 2$ 1— $8 \mid 3 \mid 3$

Note that in ASG symbol for $\frac{1}{8 \mid 3}$ is written as $\frac{1}{8 \mid 3}$ which appears to be misprint, as also above.

ASG p. 93

Again, here, the positive (dhana) of the first-negative (prathama ṛṇa) is multiplied by three into its factors above, and is multiplied by three into its divisors below getting

$$\begin{array}{c} \text{sa } \partial \mid 6 \mid 8 \\ \text{1—} \\ 8 \mid 3 \mid 3 \mid 3 \end{array}$$

Note that there is $\frac{1}{8 \mid 3}$ in ASG in place of $\frac{1}{8 \mid 3}$. Here corresponding to six the five form is as

$$\begin{array}{c} \text{sa } \partial \mid 5 \mid 8 \\ \text{1—} \\ 8 \mid 3 \mid 3 \mid 3 \end{array}$$

These are to be added into the negative-set (ṛṇa rāṣi) above it self. Hence the upper negative (ṛṇa) is multiplied by 3 above and below, we get

$$\begin{array}{c} \text{sa } \partial \mid 8 \mid 3 \mid 5 \mid 8 \\ \text{1—} \\ 8 \mid 3 \mid 3 \mid 3 \end{array}$$

Note that in ASG there is $\frac{1}{8 \mid 3}$ in place of $\frac{1}{8 \mid 3}$

Now observing other equality in this and that, the three times geometric-regression (guṇahāni) is $8 \mid 3$. Above it placing the symbol of one in excess, it becomes

$$\begin{array}{c} \text{1—} \\ \text{sa } \partial \mid 8 \mid 3 \mid 5 \mid 8 \\ \text{1—} \\ 8 \mid 3 \mid 3 \mid 3 \end{array}$$

Note that in ASG there is $\frac{1}{8 \mid 3}$ in place of $\frac{1}{8 \mid 3}$

Thus we cancel out $\frac{1}{8 \mid 3}$ in the numerator and denominator, and there are two digits of 3 in the divisor, which are mutually multiplied and we get

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 5 \\ 9 \end{array}$$

Again, into the six numeral of the positive (dhana) of the negative (ṛṇa), five is added into the negative set (ṛṇa rāṣi), and one remains which happens to be as

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 1 \\ 1 \text{—} \\ 8 \mid 3 \mid 3 \mid 3 \end{array}$$

Now this is to be subtracted from the negative of the negative, hence the negative of the negative is multiply by three in the numerator and denominator, getting

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 15 \\ 1 \text{—} \\ 8 \mid 3 \mid 3 \mid 3 \end{array}$$

Into these, observing other equal, one is subtracted from the multiplier, getting

$$\begin{array}{r} 1 \text{—} \\ \text{sa } \partial \mid 8 \mid 15 \\ 1 \text{—} \\ 8 \mid 3 \mid 3 \mid 3 \end{array}$$

Further this is multiplied above and below by three, getting

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 3 \mid 14 \\ 1 \text{—} \\ 8 \mid 3 \mid 3 \mid 3 \end{array} \quad \text{.....A}$$

Now on multiplying the positive of the negative of the negative by nine in the numerator and denominator we get

$$\begin{array}{r} \text{sa } \partial \mid 18 \\ 1 \text{—} \\ 8 \mid 3 \mid 3 \mid 9 \end{array}$$

Into the 18 numeral here, the 14 numeral form is

$$\begin{array}{r} \text{sa } \partial \mid 14 \\ 1 \text{—} \\ 8 \mid 3 \mid 3 \mid 9 \end{array} \quad \text{.....B}$$

ASG p. 94 This amount B is to be added into the negative of negative A, so observing other similarity, one excess is made above three times the geometric-regression (guṇahāni), then the negative of negative becomes

$$\begin{array}{r} 1 \text{—} \\ \text{sa } \partial \mid 8 \mid 3 \mid 14 \\ 1 \text{—} \\ 8 \mid 3 \mid 3 \mid 3 \mid 3 \end{array}$$

Here we cancel out three times the geometric-regression (guṇahāni) as increased by unity, and get

$$\begin{array}{r} \text{sa } \partial \mid 14 \\ 3 \mid 3 \mid 3 \end{array}$$

Now here above there is 14 and below there are three time three which when multiplied become twenty-seven, where fourteen can cancel with twenty-eight, hence neglecting minus one, cancelling by 14 gives half the instant-effective-bond (samaya prabaddha) as

$$\begin{array}{r} \text{sa } \partial \\ 2 \end{array}$$

Now out of eighteen numerals, fourteen numeral have been added and there remain four numeral as

$$\begin{array}{r} \text{sa } \partial \mid 4 \\ 1 \text{—} \\ 8 \mid 3 \mid 3 \mid 9 \end{array}$$

This is innumerate part of instant-effective-bond (samaya prabaddha) in measure, for mixing of which there is made the symbol for slightly greater as | symbol, then the negative of negative set (rāṣi) becomes

$$\begin{array}{r} | \\ \text{sa } \partial \\ 2 \end{array} \quad \text{.....A}^1$$

Now the second negative (dvitīya ṛṇa) is instant-effective-bond (samaya-prabaddha) divided by mutual-product-set (anyonyābhyasta-rāṣi) as reduced by unity and as multiplied by various geometric-regression (nānā guṇahāni), getting

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 6 \\ 63 \end{array}$$

according to numerical symbolism and getting

$$\begin{array}{r} \text{sa } \partial \text{ pa } \text{२} \mid \text{che va che} \\ \text{che va che pa} \\ \text{—} \\ \partial \end{array} \quad \text{.....B}$$

Now subtracting A₁ from B₁ and on cancellation, the remainder is found to be the second-negative (dvitīya ṛṇa) amounting to slightly less instant-effective-bond (samaya prabaddha) as multiplied by logarithm of logarithm to base two (varga śalākā) of numerate pit (palya). Again the first-negative (prathama-ṛṇa) is remained as

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 5 \\ 9 \end{array}$$

for symbolism of which it is multiplied above and below by two, getting

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 10 \\ 18 \end{array}$$

Here, out of the 10 digits one digit is

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 1 \\ 18 \end{array}$$

which is kept separate and the remainder is

$$\begin{array}{c} \text{sa } \partial \mid 8 \mid 9 \\ 18 \end{array}$$

ASG p. 95 which is cancelled by nine, we get the negative amounting to instant-effective-bond (samaya prabaddha) as multiplied by $\frac{8}{2}$.

This gives $\text{sa } \partial \mid 8 \mid 2$ This amount is now subtracted from the positive set (dhana rāṣi) which was

instant-effective-bond (samaya-prabaddha) as multiplied by two geometric-regressions (guṇahāni), ie., subtracted from

$$\text{sa } \partial \mid 8 \mid 2$$

getting instant-effective-bond (samaya prabaddha) as multiplied by one and half geometric-regressions (guṇahānis) as:

$$\begin{array}{c} \text{sa } \partial \mid 8 \mid 3 \\ 2 \end{array}$$

Now there was kept separate corresponding to this, instant-effective-bond (samaya prabaddha) as multiplied by geometric-regression (guṇahāni) as divided by eighteen as

$$\begin{array}{c} \text{sa } \partial \mid 8 \mid 1 \\ 18 \end{array} \quad \text{..... } A_2$$

The second-negative (dvitīya-ṛṇa) is slightly less instant-effective-bond (samaya prabaddha) as multiplied by numerate logarithm of logarithm to base two (varga śalākā) as

$$\text{sa } \partial \text{ va } \text{ २ } \quad \text{..... } B_2$$

Adding A_2 and B_2 , the symbolism is represented as slightly greater, through application of slightly greater symbol as

$$\begin{array}{c} | \\ \text{sa } \partial \mid 8 \mid 1 \\ 18 \end{array} \quad \text{..... } A_3$$

Subtracting A_3 from A_2 , we have to place the symbol of slightly less, ie., — a horizontal bar, ahead of the 12 which is the multiplier as one and half geometric-regression (guṇahāni), of instant-effective-bond (samaya-prabaddha).

This gives the sum total of the triangular-matrix (trikoṇa yantra), or the measure of the state-fluent (sattva dravya) as

$$\text{sa } \partial \mid 12 -$$

Now the summation of the triangular-matrix (trikoṇa-yantra) is described relative to more and more summation (saṅkalana).

There in the triangular-matrix (trikoṇa-yantra), starting from the top, upto eight rows there is the last-geometric regression (anta-guṇahāni). There, in the top row alone the last (anta) nisus (niṣeka) is 9. Below it the next row has nisusus (niṣekas) of the end are 9 | 10. Below it the next row has three nisusus (niṣekas) of the end as 9 | 10 | 11. In this way nisusus (niṣekas) go on increasing one after one, one by one, where the nisusus (niṣekas) amounting to geometric-regression (guṇahāni) in the first-nisus (pratham-niṣeka) corresponding to various-instants of the last-geometric-regression (anta guṇahāni) in form of eight rows found to be are as 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16.

Here all-nisusus (sarva niṣeka) equal to the last-nisus (anta niṣeka) are established separate, and the common-differences (cayas) of the last-geometric-regression (anta-guṇahāni) possible in the nisusus (niṣekas) are established separate then the following to matrix is obtained :

$$\begin{array}{cccc}
 9 & | & 1 & | & 0 \\
 9 & | & 2 & | & 1 & | & 1 \\
 9 & | & 3 & | & 1 & | & 3 \\
 9 & | & 4 & | & 1 & | & 6 \\
 9 & | & 5 & | & 1 & | & 10 \\
 9 & | & 6 & | & 1 & | & 15 \\
 9 & | & 7 & | & 1 & | & 21 \\
 9 & | & 8 & | & 1 & | & 28
 \end{array}$$

ASG p. 96 Here in the top row there is only one nisus (niṣeka) 9 which has been written and there is absence of common-difference (caya). Below it there are two nisusus (niṣekas) hence after writing two nisusus (niṣekas) of the end, one common-difference (caya), increases in the last-but-one-nisus (dvicarama niṣeka), which has been written. Again below it there are three nisusus (niṣekas), hence three last nisusus (niṣekas) have been written, and ahead in the last-but-one nisus (niṣeka) there increases one common-difference (caya) in the last-but-two there is increase of two common-differences (cayas), thus there is a total increase of three common-differences (cayas) hence three common-differences (cayas) have been written. Similarly is to be known about the all. Here the measure of common difference (caya) is to be known to be one. The measure of the last-nisus (anta-niṣeka) is to be known as nine. Ahead of it is to be known multiplier. Both there rows are to be added, hence the addition of the first row becomes the measure of the last-nisus (carama niṣeka) amounting to summation once of the number of terms (gaccha).

Thus the number of terms (gaccha) here amounts to a geometric-regression (guṇahāni), that is eight, hence applying the summation formula (saṅkalana sūtra), the number of terms (gaccha) and the number of terms (gaccha) as increased by unity are divided by two and one, and this result is multiplied by the last-nisus (anta-niṣeka), that is nine or eight as increased by unity, this gives the sum of the first row as

$$\begin{array}{cccc}
 1- & & 1- & \\
 8 & | & 8 & | & 8 \\
 2 & | & 1 &
 \end{array}$$

For the summation of the second row amounts to common-difference (caya) multiplied by two times the summation of the number of terms (gaccha) as reduced by unity. Hence applying the summation-formula (saṅkalana-sūtra), the product of number of terms (gaccha) as reduced by unity, the complete number of terms (gaccha) and the number of terms (gaccha) as increased by unity is divided respectively by three, two and one and multiplied by the common-difference (caya) which is one. This gives the summation of the second row as

$$\begin{array}{cccc}
 1- & & 1- & \\
 1 & | & 8 & | & 8 & | & 8 \\
 3 & | & 2 & | & 1 &
 \end{array}$$

Now sums of both these rows are added, hence making the least common-multiple (samaccheda) equal through three, the sum of the first row is

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$$\begin{array}{cccc} 1- & & 1- & \\ 8 & 8 & 8 & 3 \\ & 3 & 1 & 2 & 1 & 1 \end{array}$$

Note that in ASG there is $\begin{array}{cc} 1- & \\ 8 & 3 \end{array}$.

Observing this and the sum of the next row for other equality, $\begin{array}{cc} 1- & \\ 8 & 3 \end{array}$ is added to the multiplier $8 \mid 3$. Than the multiplier becomes four geometric-regression (guṇahānis) as increased by two. The reason is that $9 \mid 3$ is equal to 27 which become 34 when 8 or 7 is added to it. This 34 is eight multiplied by four and increased by two. This is $8 \mid 4$.

The summation of terms (gaccha saṅkalana) amounting to the geometric-regression (guṇahāni) is

$$\begin{array}{cc} 1- & \\ 8 & 1 & 8 \\ 2 & 1 & 1 \end{array}$$

which is multiplied by the above and divided by three. The result is the initial-positive (ādi-dhana) corresponding to the last-geometric-regression (anta-guṇahāni) as

$$\begin{array}{cccccc} 1- & & 2- & & & \\ 8 & 1 & 8 & 1 & 8 & 1 & 4 & 1 & 1 \\ & & & & 6 & & & & \end{array}$$

Note that in ASG there is $\begin{array}{cc} 2- & \\ 8 & 4 \end{array}$ in place of $\begin{array}{cc} 2- & \\ 8 & 4 \end{array}$.

Here is no past-positive (uttara-dhana).

Below it there is last-but-one (dvicarana) geometric-regression (guṇahāni) in form of eight-rows. In that, in the first-nisus (prathama-niṣeka) in form of the eight rows from above, of the last-geometric-regression (anta-guṇahāni) have nine, etc., upto 16 as nusus (niṣekas), stated as a nusus (niṣeka), are found separately separately in all the rows. Initiating with the last row of the last-geometric-regression (anta-guṇahāni), whatever nusus (niṣekas) has been stated in the rows, twice as much as those are the measures of the nusus are found in excess in the rows initiating with its last row. In those nusus (niṣekas) in excess, all nusus (niṣekas) equal to the last-nisus (anta-niṣeka) of last-but-one geometric-regression (guṇahāni) are established separate. And where the common-difference (cayas) of the increasing last-but-one, geometric-regression (guṇahāni) have been separately established, the both of the row with twice the measure of the last-geometric-regression (anta-guṇahāni) becomes as.

TRANSCRIPTION

0	2 1	2 3	2 6	2 10	2 15	2 21	2 28
9 2 1	9 2 2	9 2 3	9 2 4	9 2 5	9 2 6	9 2 7	9 2 8

The summation of these above happens to be twice the sum of the two-rows of the last-geometric-regression (anta-guṇahāni), as

TRANSCRIPTION	sum of the first row	sum of the second row
	prathama pañkti joḍa	dvitīya pañkti joḍa
	1— 1—	1— 1—
	8 2 8 8	2 8 8 8
	2 1	3 2 1

Note that in ASG there is 8 | 2 in place of 8 | 2 .

Adding there as before, twice the initial positive (ādi-dhana) of the last-geometric-regression (anta-guṇahāni) is obtained as the initial positive (ādi-dhana) of this last-but-one-geometric-regression (upānta-guṇahāni) as

Note that initial positive may be taken to be initial sum as ādi dhana, etc.

$$\begin{array}{c} 1- \quad 2- \\ 8 | 8 | 8 | 4 | 2 \\ 6 \end{array}$$

Note that in ASG there is 8 | 4 in place of 8 | 4 .

Further the sum of the initial row of the last-geometric-regression (anta guṇahāni) is 100 , whose existence is to be known in all the rows, hence it is multiplied by 8 getting the post-positive (uttara-dhana) corresponding to the last-but-one-geometric-regression (upānta-guṇahāni) as

$$100 | 8$$

Again below it is the last-but-two-geometric-regression (tricarama-guṇahāni) in form of eight rows. There the all the nisusus (niṣekas) of the initial row of the last-but-one-geometric-regression (guṇahāni) are found in all the rows. Initiating with the last row, in the rows, there are found increased nisusus (niṣekas) as one, two, etc., having twice as much measure as that of the nisusus (niṣekas) of the last-but-one geometric-regression (guṇahāni). Hence there the initial-positive (ādi-dhana) is twice as much as the initial-positive (ādi-dhana) of the last-but-one geometric-regression (guṇahāni). Further the post-positive (uttara-dhana) is to be known eight times the sum of the nisusus (niṣekas) of the initial row of the last-but-one geometric-regression (guṇahāni), getting, 300 | 8 . Similarly, corresponding to the last-but-three, etc., geometric-regressions (guṇahānis), the initial sum [positive] (ādi dhana) goes on becoming doubling where as the post-sum [positive] (uttara dhana) goes on multiplying respectively by 8 .

2- 2 —
Note that in ASG there is 8 | 4 in place of 8 | 4 .

TRANSCRIPTION

nāma	ādi dhana	uttara dhana
anta guṇahāni (last geometric regression)	$\begin{array}{r} 1- \quad 2- \\ 8 8 8 4 1 \\ 6 \end{array}$	0
pañcama guṇahāni (fifth geometric regression)	$\begin{array}{r} 1- \quad 2- \\ 8 8 8 4 2 \\ 6 \end{array}$	100 8
caturtha guṇahāni (fourth geometric regression)	$\begin{array}{r} 1- \quad 2- \\ 8 8 8 4 4 \\ 6 \end{array}$	300 8
tr̥tīya guṇahāni (third geometric regression)	$\begin{array}{r} 1- \quad 2- \\ 8 8 8 4 8 \\ 6 \end{array}$	700 8
dvitīya guṇahāni (second geometric regression)	$\begin{array}{r} 1- \quad 2- \\ 8 8 8 4 16 \\ 6 \end{array}$	1500 8
pratham guṇahāni (first geometric regression)	$\begin{array}{r} 1- \quad 2- \\ 8 8 8 4 32 \\ 6 \end{array}$	3100 8

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Here the summation of the initial-positive (ādi dhana) all geometric-regressions (guṇahānis). The last-positive [last-sum] (anta-dhana) is as

$$\begin{array}{r} 1- \quad 2- \\ 8 | 8 | 8 | 4 | 32 \\ 6 \end{array}$$

This is multiplied by the multiplier two, getting

$$\begin{array}{r} 1- \quad 2- \\ 8 | 8 | 8 | 4 | 64 \\ 6 \end{array}$$

From this we subtract the initial

$$\begin{array}{r} 1- \quad 2- \\ 8 | 8 | 8 | 4 | 1 \\ 6 \end{array}$$

getting the summation of the initial-positive [initial-sum] (ādi dhana) of all the geometric-regressions (guṇahānis) is given by

$$\begin{array}{r} 1- \quad 2- \\ 8 | 8 | 8 | 4 | 63 \\ 6 \end{array}$$

2— 2—

Note that here and in the above in ASG there is 8 | 4 in place of 8 | 4 .

Corresponding to post-positive [post sum] (uttara-dhana), every where the post-positive [post sum] (uttara dhana) of the last-but-one geometric-regression (guṇahāni) is 100 | 8 , and this much measure is the negative (ṛṇa) at six places is mixed becoming as

100 | 8

200 | 8

400 | 8

800 | 8

1600 | 8

3200 | 8

Here the last-positive [last-sum] (anta-dhana) is 3200 | 8 which when multiplied by two as multiplier gives 6400 | 8 from which we subtract the initial, ie., 100 | 8 , getting the post-positive [post-sum] (uttara dhana) as

6300 | 8 .

Now in this post-positive [post sum] (uttara dhana) the mixed negative is 100 | 8 which is mixed at six places which is the measure of various-geometric-regression (nānā guṇahāni). Hence is summation becomes the post-positive [post sum] (uttara dhana) of the last-but-one geometric-regression (guṇahāni) as multiplied by the various-geometric-regression (nānā guṇahāni), that is 100 | 8 | 6. In this way there three sets (rāśi) become

TRANSCRIPTION

ādi dhana (initial sum)	uttara dhana (post-sum)	ṛṇa (negative)
1— 2—		
8 8 8 4 63	6300 8	100 8 6
6		

Note that as ASG the vertical symbol do not appear which have been given here for clarity.

Here, in order to convert then into instant-effective-bond (samaya prabaddha) unit, we divide by 6300 and on cancellation, the above three sets become.

TRANSCRIPTION

ādi dhana (initial sum)	uttara dhana (post-sum)	ṛṇa (negative)
1— 2—		
sa 8 8 8 8 4	sa 8 8	sa 8 8 6
100 6		63

2—

Note that we have placed vertical symbol for clarity which do not appear in the ASG. Simply 8 | 4

2—

is written in place of 8 | 4 given in the ASG.

ASG p. 100

Again here in the divisor of the initial-positive [initial-sum] (ādidhana) there was divisor 100 , there on factorization (sambhedana) there is made the multiplier of form ahead of the thrice the geometric-regression (guṇahāni) as increased by unity. Again after making this multiplier of four, there was multiplier of six, multiplying which we get three geometric-regressions (guṇahānis) which are written. On cancellation from numerator and denominator the geometric-regression (guṇahāni), then the initial-positive [initial sum] (ādi dhana) becomes as

2 — 1—
 sa ॐ | 8 | 4 | 8
 1—
 8 | 3 | 3

Note that in ASG vertical strokes are not given and

2— 2—
 8 | 4 appear in place of 8 | 4 .

similarly above 8 | 3

1—

Again here above the multiplier 8 there was one more, ie, 8, its measure is kept separate, and established ahead, and first let the remainder established separate. Than both the sets become

ādi dhana
 (initial sum)

ādi dhan kā dhana
 (positive of initial sum)

2 —

2 —

sa ॐ | 8 | 4 | 8

sa ॐ | 8 | 4

1—

1—

8 | 3 | 3

8 | 3 | 3

2—

2 —

Note that stroke do not appear in ASG, and 8, 4 is given there in place of 8 | 4 . Similarly

1—

above 8 | 3

on separation the following :

<p>ādi dhana (initial sum)</p> <p>sa ॐ 8 4 8 </p> <p>1—</p> <p>8 3 3</p>	<p>ādi dhana kā dhana (positive of initial sum)</p> <p>sa ॐ 8 4</p> <p>1—</p> <p>8 3 3</p>
<p>pahile dvika kā dhana (positive of former dual)</p> <p>sa ॐ 2 8</p> <p>1—</p> <p>8 3 3</p>	<p>dūsare, dvika kā dhana (positive of second dual)</p> <p>sa ॐ 8 2</p> <p>1—</p> <p>8 3 3</p>

Here the positive [sum] (dhana) of the first dyad (dvika) is multiplied above and below by thrice getting. sa ॐ | 6 | 8

1—

8 | 3 | 3 | 3 | 3

In its six digital forms, the four forms are as

sa ० | 4 | 8

1 —

8 | 3 | 3 | 3

These are mixed in the above initial positive [initial sum] (ādidhana), hence the initial positive [initial sum] (ādidhana) is multiplied above and below by thee, getting

ASG p. 101

sa ० | 8 | 3 | 4 | 8

1 —

8 | 3 | 3 | 3

Observing other similarity between this and the preceding, we make the multiplier 8 | 3 as increased by unity, getting

sa ० | 8 | 3 | 4 | 8

1 —

8 | 3 | 3 | 3

Note that in ASG there appears 8 | 3 in the upper row. Similarly in the lower row.

1 —

Thus cancelling 8 | 3 in the numerator and denominator and multiplying two times the threes, we get the initial-positive [initial sum] (ādidhana) as

sa ० | 4 | 8

9

Note We have placed vertical strokes for clarity which are not in ASG. Again the positive [sum] (dhana) of the other dyad (dvika) is multiplied above and below by thrice, getting

sa ० | 6

1 —

8 | 3 | 3 | 3

Here in the six digits, four digits are added to the positive [sum] (dhana) of initial-positive [initial sum] (ādi dhana) which is as multiplied above and below by three getting

sa ० | 4

1 —

8 | 3

the positive [sum] (dhana) of the initial-positive [initial-sum] (ādidhana) in the form as

sa ० | 8 | 3 | 4

1 —

8 | 3 | 3 | 3

For addition, observing other similarity, one is increased over 8 | 3 which is thrice the geometric-regression (guṇahāni), getting

sa ० | 8 | 3 | 4

1 —

8 | 3 | 3 | 3

Here thrice the geometric-regression (guṇahāni) as increased by unity is cancelled and the two three's in the denominator are mutually multiplied.

1—

1—

Note that in the above, 8 | 3 has been written as 8 | 3 in ASG which may be corrected. Thus we get the positive [sum] (dhana) of the initial-positive [initial-sum] (ādidhana) as

$$\begin{array}{r} \text{sa } \partial \mid 4 \\ 9 \end{array}$$

Again in the positive [sum] (dhana) of the first dyad (dvika) there remains two digits as

$$\begin{array}{r} \text{sa } \partial \mid 2 \mid 8 \\ 1— \\ 8 \mid 3 \mid 9 \end{array}$$

into which is added the remaining two digits of the second dyas as

$$\begin{array}{r} \text{sa } \partial \mid 2 \\ 1— \\ 8 \mid 3 \mid 9 \end{array}$$

getting the sum on making the symbol fo slightly greater, as

$$\begin{array}{r} \text{sa } \partial \mid 8 \\ 1— \\ 8 \mid 3 \mid 9 \end{array}$$

This added into the initial positive [initial-sum] ādidhana symbolized as

$$\begin{array}{r} \text{sa } \partial \mid 4 \\ 9 \end{array}$$

and on cancellation we get slightly smaller half instant-effective-bond (samaya prabaddha) as given by

ASG p. 102

$$\begin{array}{r} \text{sa } \partial \mid 1— \\ 2 \end{array}$$

The above is to be subtracted from the numerate logarithm of logarithm to base two (varga śalākā) measure of instant-effective-bond (samaya prabaddha) which is a negative set as

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 6 \\ 63 \end{array}$$

we place the symbol of slightly less ahead of it and get the negative set as

$$\text{va } \nabla —$$

Again the earlier mentioned initial-positive [initial-sum] (ādidhana) remains as

$$\begin{array}{r} \text{sa } \partial \mid 4 \mid 8 \\ 9 \end{array}$$

which is added to the post-positive [post sum] (uttara dhana) as sa ∂ | 8 . Hence the post-positive [post sum] (uttara dhana) is made equi-divisor (samaccheda) through nine, getting

$$\begin{array}{r} \text{sa } \partial \mid 9 \mid 8 \\ 9 \end{array}$$

Hence observing other similarity in it, into the four digits of that are added the 9 digits of this, getting

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 13 \\ 9 \end{array}$$

Again for the purpose of symbolism here, the eighteenth part of instant-effective-bond (samaya-prabaddha) as multiplied by geometric-regression (guṇahāni), is

$$\begin{array}{r} \text{sa } \partial \mid 8 \\ 18 \end{array}$$

which is negative and to be mixed. Hence that set is multiplied above and below by two, getting

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 26 \\ 18 \end{array}$$

In order to mix this, suitable negative is observed for other similarity, and one is added to the multiplier of twenty-six, getting

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 27 \\ 18 \end{array}$$

Here cancellation by nine gives the instant-effective-bond (samayaprabaddha) as multiplied by one and half geometric-regressions (guṇahāni) as

$$\begin{array}{r} \text{sa } \partial \mid 8 \mid 3 \\ 2 \end{array}$$

From this is to be subtracted the second negative, which amounts to eighteenth part of instant-effective-bond (samaya prabaddha) multiplied by geometric-regression (guṇahāni) and the product as increased by instant-effective-bond (samaya prabaddha) as multiplied by slightly less numerate logarithm of logarithm to base two (varga śalākā). For this purpose a symbol for slightly less is made in the multiplier of the one and half geometric regression (guṇahāni), and the measure of eight as multiplied by one and half is taken as twelve, thus we get the state (sattva) as instant-effective-bond (samaya prabaddha) as multiplied by slightly less one and half geometric-regression (guṇahāni) as $\text{sa } \partial \mid 12 -$

Now the summation of the triangular matrix (trikoṇa yantra) is described relative to regular (anuloma) and converse (viloma) methods :

There, corresponding to the triangular-structure (trikoṇa-racanā), first-nisus (prathama niṣeka) of first-geometric-regression (prathama guṇahāni) is found to be one, second-nisus (dvitīya-niṣeka) are two third-nisus (tṛtīya-niṣeka) are three (Note the mistake in ASG where 480 3 is written). In this way in the order of increase one by one the last-nisus (anta niṣeka) amounts to the measure of geometric-regression (guṇahāni)	512 1
	480 2
	448 3
	288 8
ASG p. 103 Again the first-nisus (prathama niṣeka) of the second-geometric-regression (dvitīya guṇahāni) are one geometric-regression (guṇahāni) as increased by unity, second-nisus (dvitīya niṣeka) are a geometric-regression as increased by two	1-
	256 8

In this increasing one by one, the last-nisus (anta-niṣeka) is twice the geometric-regression. This is the second column. Again increasing one by one there happen to be nisusus (niṣekas) in the third column. Similarly the fourth etc. columns are to be know. Whatever nisus (niṣeka) happens to be, that much measure of nisusus (niṣekas) are to be known. Their structure is as follows :-

$$\begin{array}{r} 2- \\ 240 \mid 8 \\ 144 \mid 8 \mid 2 \end{array}$$

TRANSCRIPTION

288 8	8— 144 8	8— 72 8 2	8— 36 8 3	8— 18 8 4	8— 9 8 5
320 7	7— 160 8	7— 80 8 2	7— 40 8 3	7— 20 8 4	7— 10 8 5
352 6	6— 176 8	6— 88 8 2	6— 44 8 3	6— 22 8 4	6— 11 8 5
384 5	5— 192 8	5— 96 8 2	5— 48 8 3	5— 24 8 4	5— 12 8 5
416 4	4— 208 8	4— 104 8 2	4— 52 8 3	4— 26 8 4	4— 13 8 5
448 3	3— 224 8	3— 112 8 2	3— 54 8 3	3— 28 8 4	3— 14 8 5
480 2	2— 240 8	2— 120 8 2	2— 60 8 3	2— 30 8 4	2— 15 8 5
512 1	1— 256 8	1— 128 8 2	1— 64 8 3	1— 32 8 4	1— 16 8 5

Again, in the first column here, whatever nisusus (niṣekas) have been stated, in these the first-nisus (prathama niṣeka) of second-geometric-regression (dvitīya guṇahāni) is 256, in excess of which whatever amounts of common differences (cayas) are found as 32, they are written separately

ASG p. 104

32 | 1 | 8

32 | 2 | 7

32 | 3 | 6

32 | 4 | 5

32 | 5 | 4

32 | 6 | 3

32 | 7 | 2

32 | 8 | 1

Here below, in the nisus-set of five hundred and twelve, there happen to increase own eight common-differences (cayas) having thirty-two measure over the nisus-set of two hundred and fifty-six. And that nisus (niṣeka) is one alone, hence eight common-differences (cayas) as multiplied by one have been written.

Above that, corresponding to nisusus (niṣekas) of four hundred and eighty, there is increase of seven common-differences (cayas) and there are two nisusus (niṣekas), hence two times seven common-difference have been written. Still above it, corresponding to nisus set (niṣeka rāṣi) of four hundred and forty-eight, there increase six common-differences (cayas), and there nisusus (niṣekas) are found to be three. Hence six common-differences (cayas) as multiplied by three have been written.

Similarly the structure above and above are to be known. Again, ahead of the common-difference (caya) there is multiplier, which when mutually multiplied we get.

32 8		32 36
32 14	Again, these are established by	32 28
32 18	increase decrease, then one com-	32 21
32 20	mon-difference (caya) number of	32 15
32 20	terms (gaccha) which is the	32 10
32 18	geometric-regression (guṇahāni)	32 6
32 14	amounting, eight, its two times	32 3
32 8	summation is	32 1

There are added by application of the summation-formula (saṅkalana sūtra), getting product of complete number of terms (gaccha) as increased by one and number of terms (gaccha) as increased by two, as divided by three, two, one and the quotient multiplied by common-difference (caya), getting

$$\begin{array}{r} 1- \quad 2- \\ 32 | 8 | 8 | 8 \\ 3 \quad 2 \quad 1 \end{array}$$

ASG p. 105

Again subtracting these common-difference, remaining all nisusus (niṣekas) remain with measure of first-nisus (prathama niṣeka) of second geometric-regression (dvitīya guṇahāni) as

$$\begin{array}{l} 256 | 8 \\ 256 | 7 \\ 256 | 6 \\ 256 | 5 \\ 256 | 4 \\ 256 | 3 \\ 256 | 2 \\ 256 | 1 \end{array}$$

Adding these, the measure of the first-nisus (prathama niṣeka) of second geometric-regression (dvitīya guṇahāni) amounting to summation of number of terms (gaccha) once.

Hence according to summation formula the product of total number of terms (gaccha) and the number of terms (gaccha) as increased by one, is divided by two and one, and then by this is multiplied the first-nisus (prathama niṣeka) of second geometric-regression (dvitīya guṇahāni), the sum becomes

$$\begin{array}{r} 1- \\ 256 | 8 | 8 \\ 2 \quad 1 \end{array}$$

Now this is made equi-divisor by three, and one factorizing the first-nisus (prathama-niṣeka) of second-geometric-regression (dvitīya guṇahāni) through eight which is the geometric-regression (guṇahāni), we get eight times thirty-two in place of two hundred and fifty six as

$$\begin{array}{c}
 1- \\
 32 \mid 8 \mid 8 \mid 8 \mid 3 \\
 3 \quad 2 \quad 1
 \end{array}$$

Hence of this, and of the sum of common differences (cayas), observing other similarity, in the thrice geometric-regression (guṇahāni) in form of multiplier of this, we mix one geometric-regression (guṇahāni) as increased by two belonging to that, this we get the multiplier as four geometric-regression (guṇahāni) as increased by two, than summing the common-difference-sum (caya-joḍa) and nīsus-sum (niṣeka joḍa), the measure becomes

$$\begin{array}{c}
 2- \quad \quad 1- \\
 32 \mid 8 \mid 4 \mid 8 \mid 8 \\
 6
 \end{array}
 \quad \text{Note that in ASG, the symbol as } 8 \mid 4 \text{ in place of } 8 \mid 4$$

Again corresponding to second column (paṅkti) (:), ahead of the own nīsus (niṣekas) is the multiplier eight which is kept separate, and whatever are excess of multiplies, as one, two, etc., the nīsus as multiplied by those excess of multiplies are established as follows :

ASG p. 106

144 | 8
160 | 7
176 | 6
192 | 5
208 | 4
224 | 3
240 | 2
256 | 1

In these, as earlier, all the nīsus (niṣekas), having the measure amounting to first-nīsus (prathama-niṣeka) of third-geometric-regression (tṛtīya guṇahāni), are established separate.

And remaining own common differences (cayas) are established separate as follows :-

niṣeka	jude sthāpe caya	guṇakāra milāye aise	hinādhika kari gaccha kaum doya bāra saṁkalana kīe hue caya
128 8	16 8 1	16 8	16 36
128 7	16 7 2	16 14	16 28
128 6	16 6 3	16 18	16 21
128 5	16 5 4	16 20	16 15
128 4	16 4 5	16 20	16 10
128 3	16 3 6	16 18	16 6
128 2	16 2 7	16 14	16 3
128 1	16 1 8	16 8	16 1

The measure of the nisus (niṣeka) and common-difference (caya) here is to be known to be half of those of the first-geometric-regression (prathama guṇahāni). Again, when, as earlier, the common-differences (cayas) and nisusus (niṣekas) are added, half of the measure of the earlier quoted form of addition of these two happens to be like this :

niṣeka joḍa (sum of nisusus)	caya joḍa (sum of common difference)
1—	1— 2—
32 8 8	16 8 8 8
2 1	3 2 1

Again, on adding both these as earlier, we get the initial-positive [initial-sum] (ādidhana) of half the second-geometric-regression (dvitiya guṇahāni) of the first-geometric-regression (prathama-guṇahāni)

as

2—	1—	2—	2—
16 8 4 8 8			
6			

Note that in ASG, there is 8 | 4 in place of 8 | 4

Again all nisus (niṣekas) here are alongwith multipliers of eight in the second column as

144 | 8
160 | 8
176 | 8
192 | 8
208 | 8
224 | 8
240 | 8
256 | 8

Among these or out of these, as before, taking the measure of the first-nisus (prathama niṣeka) of third-geometric-regression (tṛtīya guṇahāni), all nisusus (niṣekas) are established separate.

And their own remaining increasing measure of common-differences (cayas) are established separate as follows :

niṣekas (nisusus)	Adhika caya (additional common-differences)
128 8	16 8 1
128 8	16 8 2
128 8	16 8 3
128 8	16 8 4
128 8	16 8 5
128 8	16 8 6
128 8	16 8 7
128 8	16 8 8

Among there, the sum of the common-differences (cayas) is the summation (saṅkalana) of number of terms (gaccha) amounting to geometric-regression (guṇahāni) as

$$\begin{array}{r} 1- \\ 8 \mid 8 \\ 2 \mid 1. \end{array}$$

When own common-difference (caya) measure is multiplied by geometric-regression (guṇahāni) as multiplied by

$$\begin{array}{r} 1- \\ 8 \mid 8 \\ 2 \mid 1. \end{array}$$

we get as follows:

$$\begin{array}{r} 1- \\ 16 \mid 8 \mid 8 \mid 8 \\ 2 \mid 1. \end{array}$$

Further the sum of nīśusus (nīṣekas) is the square of geometric-regression (guṇahāni) as $8 \mid 8$, multiplied by which the first-nīśus (prathama nīṣekas) of the third-geometric-regression (tṛtīya guṇahāni) becomes $128 \mid 8 \mid 8$

Now the first-nīśus (prathama nīṣeka) of third-geometric-regression (tṛtīya guṇahāni) is factorized through eight which is the geometric regression (guṇahāni), and on making the set equidivisor (samaccheda) by multiplying it above and below by two we get

$$\begin{array}{r} 16 \mid 8 \mid 8 \mid 8 \mid 2 \\ 2 \end{array}$$

For adding this amount with the common-difference (caya), similarity is observed, the twice the geometric-regression (guṇahāni) is the following multiplier as $8 \mid 2$ in to which is multiplier ie., a geometric-regression (guṇahāni) as increased by unity, ie., 8 is mixed, getting thrice the geometric-regression (guṇahāni) as increased by unity. Then the post-positive [post-sum] (uttara dhana) of second column in form of summation of these two becomes as

$$\begin{array}{r} 1 \text{ —} \\ 16 \mid 8 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$$

$$\begin{array}{r} 1- \qquad \qquad 1 \text{ —} \end{array}$$

Note that in ASG, there is $8 \mid 3$ in place of $8 \mid 2$ in the first row.

In this way, the initial-positive [initial-sum] (ādi dhana) and post-positive [post-sum] (uttara dhana) of the third column, etc., are to be known as respectively, succeedingly, half and then half.

In particular, whatever is the measure of geometric-regression (guṇahāni) of the post-positive [post sum] (uttara dhana), that much measure as reduced by unity is the multiplier. Their symbolism is as follows :

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TRANSCRIPTION

nāma (name) anta guṇahāni (last geometric regression)	ādi dhana (initial sum) 2— 1— 1 8 4 8 8 6	uttara dhana (post sum) 1— 1 5 8 8 8 3 2
pañcama guṇahāni (fifth geometric regression)	2— 1— 2 8 4 8 8 6	1— 2 4 8 8 8 3 2
caturtha guṇahāni (fourth geometric regression)	2— 1— 4 8 4 8 8 6	1— 4 3 8 8 8 3 2
ṭṭīya guṇahāni (third geometric regression)	2— 1— 8 8 4 8 8 6	1— 8 2 8 8 8 3 2
dvitīya guṇahāni (second geometric regression)	2— 1— 16 8 4 8 8 6	1— 16 1 8 8 8 3 2
prathama guṇahāni (first geometric regression)	2— 1— 32 8 4 8 8 6	0

Again, here the last-positive [last sum] (anta dhana) in the initial-positive [initial-sum] (ādi dhana) is as

$$\begin{array}{ccccccc} & 2 & \text{---} & & 1 & \text{---} & \\ 32 & | & 8 & | & 4 & | & 8 & | & 8 \\ & & & & 6 & & & & \end{array}$$

Note : in the ASG, there is 8 | 4 in place of 8 | 8 in the first row.

This is multiplied by two getting

$$\begin{array}{ccccccc} & 2 & \text{---} & & 1 & \text{---} & \\ 64 & | & 8 & | & 4 & | & 8 & | & 8 \\ & & & & 6 & & & & \end{array}$$

Note : same as above

From the above, the initial (ādi) which is

$$\begin{array}{ccccccc} & 2 & \text{---} & & 1 & \text{---} & \\ 1 & | & 8 & | & 4 & | & 8 & | & 8 \\ & & & & 6 & & & & \end{array}$$

is subtracted, we get the sum of the initial-positive [initial sum] (ādi dhana) of all geometric-regressions (guṇahānis) is

$$\begin{array}{c} 2 \text{ — } \quad 1 \text{ — } \\ 63 \mid 8 \mid 4 \mid 8 \mid 8 \\ 6 \end{array}$$

Note : that in ASG, that is 8 | 4 in place of 8 | 4 .

Further, whatever one, etc., multipliers (guṇakāras) have been stated corresponding to post-positive [post sum] (uttara dhana), those are established ahead and ahead of their own multiplicand (guṇya) one by one.

There is non-existence of post-positive [post sum] (uttaradhana) corresponding to first-geometric-regression (prathama guṇahāni).

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Again corresponding to the second-geometric-regression (dvitīya guṇahāni) the multiplier was unity, hence in the first column, at only one place, its, multiplicand is

$$\begin{array}{c} 1 \text{ — } \\ 16 \mid 8 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$$

Again these were two multipliers of the third-geometric-regressions (tṛtīya guṇahāni), hence in the first and second column/rows? as two places, their multipliers are established as

$$\begin{array}{c} 1 \text{ — } \\ 8 \mid 8 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$$

Similar placing is to be made up to the end. This is shown in the following table :

TRANSCRIPTION

anta guṇahāni (last geometric regression)	$\begin{array}{c} 1 \text{ — } \\ 118 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 118 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 118 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 118 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 118 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	0
pañcama guṇahāni (fifth geometric regression)	$\begin{array}{c} 1 \text{ — } \\ 218 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 218 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 218 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 218 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	0	0
caturtha guṇahāni (fourth geometric regression)	$\begin{array}{c} 1 \text{ — } \\ 418 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 418 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 418 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	0	0	0
tṛtīya guṇahāni (third geometric regression)	$\begin{array}{c} 1 \text{ — } \\ 818 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	$\begin{array}{c} 1 \text{ — } \\ 818 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	0	0	0	0
dvitīya guṇahāni (second geometric regression)	$\begin{array}{c} 1 \text{ — } \\ 1618 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$	0	0	0	0	0
prathama guṇahāni (first geometric regression)	0	0	0	0	0	0

Again, by applying the formula, "anta dhaṇaṁ guṇa gaṇiyam", the vertical form of columns here are added respectively, getting the following sums :

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prathama paṅktī kā joḍa	dvitīya paṅktī kā joḍa	trītiya paṅktī kā joḍa	caturtha paṅktī kā joḍa	pañcama paṅktī kā joḍa	ṣaṣṭha paṅktī kā joḍa
1— 31 8 8 8 3 2	1— 15 8 8 8 3 2	1— 7 8 8 8 3 2	1— 3 8 8 8 3 2	1— 1 8 8 8 3 2	0

Again in these six places, separate negative as much as $\begin{array}{c} 1— \\ 1 | 8 | 8 | 8 | 3 \\ 2 \end{array}$ is mixed.

There, observing other summilarity, making one in excess of each of the multiplies of the five sums, and writing the negative amount alone in the sixth column, the six sets are as follows :

1— 32 8 8 8 3 2	1— 16 8 8 8 3 2	1— 8 8 8 8 3 2	1— 4 8 8 8 3 2	1— 2 8 8 8 3 2	1— 1 8 8 8 3 2
-------------------------------	-------------------------------	------------------------------	------------------------------	------------------------------	------------------------------

Adding all the six sets we get

$$\begin{array}{c} 1— \\ 63 | 8 | 8 | 8 | 3 \\ 2 \end{array}$$

Again here the digit of eight was written before, that is established ahead as

$$\begin{array}{c} 1— \\ 63 | 8 | 8 | 3 | 8 \\ 2 \end{array}$$

Again thrice the geometric-regression (guṇahāni) as increased by unity is

$$\begin{array}{c} 1— \\ 8 | 3 \end{array}$$

which equals twenty five. The multiplier eight was ahead of sixty three is divided by two, on cancellation these becomes the digit of four. Again multiplying twenty-five by four, getting one hundred when sixty-three is multiplied by this hundred we get sixty three hundred, and ahead of it is the multiplier eight as 6300 | 8 . This is the measure of instant-effective-bond (samaya prabaddha) as multiplied by geometric-regression (guṇahāni) in numerical-symbolism (aṅka-saṁdr̥ṣṭi).

Again whatever negative measure was mixed its measure was

$$\begin{array}{c} 1— \\ 1 | 8 | 8 | 8 | 3 \\ 2 \end{array}$$

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This much negative is mixed at six places, the number of various geometric regression (nānā guṇahāni). Hence this is multiplied by six and writing the digit of eight ahead which was written before we get

$$\begin{array}{r} 1— \\ 1 \mid 8 \mid 8 \mid 3 \mid 8 \mid 6 \\ 2 \end{array}$$

On mutually multiplying the numerals of

$$\begin{array}{r} 1— \\ 1 \mid 8 \mid 8 \mid 3 \\ 2 \end{array}$$

we get one hundred. Ahead of its multiplier is written, thence the negative-set becomes

$$100 \mid 8 \mid 6$$

Again the initial positive [initial sum] (ādi dhana) is

$$\begin{array}{r} 2— \quad 1— \\ 63 \mid 8 \mid 4 \mid 8 \mid 8 \\ 6 \end{array}$$

All these three sets are for conversion to instant-effective-bond (samaya prabaddha) unit, the three sets are divided by sixty three hundred getting three sets as follows :

ādi dhana	uttara dhana	ṛṇa
$\begin{array}{r} 2— \\ \text{sa } \partial \mid 8 \mid 4 \mid 8 \mid 8 \mid \\ 100 \mid 6 \end{array}$	$\text{sa } \partial \mid 8$	$\begin{array}{r} \text{sa } \partial \mid 8 \mid 6 \\ 63 \end{array}$

Again, ahead of this, in a manner similar to the rule of summation (saṅkalana), the state (sattva) is instant-effective-bond (samaya prabaddha) as multiplied by slightly less one and a half geometric-regression (guṇahāni), $\text{sa } \partial \mid 12 -$

In this way the methodical procedure for summation of the triangular-matrix (trikoṇa yantra) has been stated.

Again, in the description of maximal accumulation (utkrṣṭa-saṅcaya), conformally possible generally mentioned symbolism is to be known. Now the symbolism above the number-measure of bios is stated

The common measure of gross developable fire bodied and air-bodied, as well as that of five-sensed-developable subhuman human have been already described.

Among than the measure of the transformable (vaikriyika)-power associated bios with-phosphorescent-body is obtained on dividing the trail-cubed (ghanāvalī) two times by the innumerate, as

$$\partial \partial$$

The air bodied bios-set associated with transformability power (vaikriyika śakti) is innumerate part of pit (palya), as

$$\partial$$

The five-sensed subhuman human associated with transformability-powr (vaikriyika-śakti) is universe-line (jaga-śreṇi) – as multiplied by innumerate part of pit (palya), pa

∂ ,

as multiplied by finger cubed (ghanāṅgula), 6 . Their matrix (yantra) is given as follows :

nāma sāmānya rāśi	teja 8 ∂	vāyu ≡ २	pañcendriya tiryāṇca manuṣya = 5864 4 6561 5
vikriyā śakti yaktā rāśi	8 ∂ ∂	pa ∂	- 6 pa ∂

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Again the triple-volitional (triyogī) bios-set (jivarāśi) is

$$\begin{array}{r} ||| २ | 1 \\ = २ \\ 4 | 65 = 1 \\ 5 \end{array}$$

Here the symbolism is to be known to have in excess three sets, viz., the hellish (nārakī), the developable-rational-subhuman (paryāpta-saṁjñī-tiryāṇca) and developable-human (paryāpta-manuṣya).

Again double-volitional (dvi yogi) bios-set is

$$\begin{array}{r} = \\ 4 = \\ 5 \end{array} \quad \begin{array}{l} \text{Here ahead of the mobile developable-set (trasa-paryāpta-rāśi), there is symbol of} \\ \text{subtraction of the triple-volitional-set (triyogi-rāśi).} \end{array}$$

Again single-body-volitional (eka-kāya yogī) bios-set is 13 = . Here from the mundane (saṁsāri) is subtracted the double-volitional-set (dviyogi-rāśi) and symbolized there on.

Again the periods of true, false, both, non-both, volitions are as follows:

non-both (ubhaya)	2 २ 64
both (ubhaya)	2 २ 16
false (asatya)	2 २ 4
true (satya)	2 २ 1

Here the period of truth mental-volition (satya manoyoga) is one inter-muhūrta (anta-muhūrta) as 2 २ | 1 .

When this is multiplied by numerate, ie, is symbol 4 , we get respectively the above amount whose sum is 2 २ | 85 .

In to this sum, when multiplication of symbol of numerate, four, is made successively we get the symbolism, for the true, false, both, nonboth vocal-volition (vacana yoga) as

non-both (ubhaya)	2 २ 85 256
both (ubhaya)	2 २ 85 64
false (asatya)	2 २ 85 16
true (satya)	2 २ 85 4

Their sum total is

2 २ | 85 | 340

When this is multiplied by numerate, symbolized by form, we get the period of bodily-volition (kāya yoga) as 2 २ | 85 | 1360 .

In this way the sum total of all the three types of volition (yoga) periods is

2 २ | 85 | 1701 . When the triple-volitional-set (triyogi-rāṣi) is divided by this sum, we get the measure of true mental volitional (satya-manoyogi) etc., bios as multiplied by each of their own periods.

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TRANSCRIPTION

nāma	manoyogī		vacana yogī		kāya yogī
sarva	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad २ \\ 4 65 = 1 1701 \end{array}$	sarva	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 340 \quad २ \\ 4 65 = 1 1701 \end{array}$	sarva	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 1340 \quad २ \\ 4 65 = 1 1701 \end{array}$
anubhaya	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 64 २ \\ 4 65 = 1 85 1701 \end{array}$	anubhaya	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 256 \quad २ \\ 4 65 = 1 1701 \end{array}$		
ubhaya	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 16 २ \\ 4 65 = 1 85 1701 \end{array}$	ubhaya	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 64 \quad २ \\ 4 65 = 1 1701 \end{array}$		
asatya	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 4 २ \\ 4 65 = 1 85 1701 \end{array}$	asatya	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 16 \quad २ \\ 4 65 = 1 1701 \end{array}$		
satya	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 1 \quad २ \\ 4 65 = 1 85 1701 \end{array}$	satya	$\begin{array}{r} \quad \\ \quad 1 \\ = \quad 4 \quad २ \\ 4 65 = 1 1701 \end{array}$		

There, wherever there is equality of intermuhūrta (antar-muhūrta) and eighty-five, in the numerator and denominator : cancellation is to be performed.

Again corresponding to the double volitional and volition's period is one inter-muhūrta (antar-muhūrta) as 2 १ | 1

Numerate times this is the period of body-volition (kāya-yoga) as 2 १ | 4 . When both of these are mixed, we get 2 १ | 5 .

ASG p. 114 When this double-volitional bios-set (dviyogī jīvarāśi) is divided by this, we get the measure as multiplied by each of its own period, as

the non both vocal volitional
(anubhaya vacana yogī)

$$\begin{array}{r} = 2 \text{ १ } | 1 \\ 4 = 2 \text{ १ } | 5 \\ 5 \end{array}$$

the physical bodily-volitional
(audarika kāya-yogī)

$$\begin{array}{r} = 2 \text{ १ } | 4 \\ 4 = 1 \text{ 2 १ } | 5 \\ 5 \end{array}$$

Again, corresponding to the bodily-volitional (kāya yogī), the karma-finishing (kārmāṇa) period is instants, 3, that of ie period of physical-mixed (audārika miśra) is inter-muhūrta (antar-muhūrta), 2 १, Numerate times this amount is the period of the physical (audārika), as 2 १ | 4 . When these are added we get five times the inter muhūrta (antar-muhūrta) as increased by three instants, symbolized as

$$\begin{array}{r} 3 \text{ —} \\ 2 \text{ १ } | 5 \end{array}$$

When the single-volitional (eka yogī) bios-set (jīvarāśi) is divided by this amount, we get the number of the bios each of their own volition as multiplied by each of their periods :-

karma finishing
(kārmāṇa)

$$\begin{array}{r} 13 = 1 \text{ 3} \\ 3 \text{ —} \\ 2 \text{ १ } | 5 \end{array}$$

physical mixed
(audārika miśra)

$$\begin{array}{r} 13 = 1 \text{ 2 १ } | \\ 3 \text{ —} \\ 2 \text{ १ } | 5 \end{array}$$

physical
(audārika)

$$\begin{array}{r} 13 = 1 \text{ 2 १ } | 4 \\ 3 \text{ —} \\ 2 \text{ १ } | 5 \end{array}$$

Here the sum total set is made the measure-set (pramāṇa-rāśi), the fruit-set (phala-rāśi) is the number of the single-volitional bios (eka-yogī-jīvas), and the requisition-set (icchā rāśi) is each of its own period, then the acquisition-set (labdha-rāśi), measures the bios-sets.

Again among the vyantara divine-beings, the accidental (sopakrama) period is form of continuous generation is innumerate part of trail (āvalī) as 2

$$\text{१}$$

The non-accidental (anupakrama) period without generation happens to the numerate trail as 2 १. There corresponding to the life-time of ten-thousand years, the pure accidental (upakrama) counting-rod (śalākā) in relation to both, the developable and non-developable periods (paryāpatāparyāpta kālas) is numerate times that period, as 2 १ १ |

Numerate time less than this is the corresponding period of non-developable period as 2 १
0

Here both the accidental and non-accidental periods are mixed, then the measure set (pramāṇa rāśi) is

2

∅

2 ॡ

the fruit-set (phala rāśi) is one, and the requisition-set (icchā rāśi) is ten thousand years, as multiplied by trail (āvalī) as multiplied by the numerate three times as 2 ॡ ॡ ॡ . Thus the acquisition set (labdha rāśi) is the mixed counting-rod as

2 ॡ ॡ ॡ

1—

2 ॡ | ∅

∅

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Here in the dividend set we mix 2 ॡ ॡ making the negative of the
∅

negative set, as a positive set, it becomes

1—
2 ॡ ॡ ॡ | ∅ |
1—
2 ॡ ॡ | ∅ |

Here, observing

1—
2 ॡ ॡ | ∅ |

similarity in the dividend and divisor, cancellation is performed getting ॡ ॡ . In this, for subtraction of the negative set, symbol for slightly less is made ahead, getting the mixed counting rod (śalākā) measure as ॡ ॡ — .

Again, measure counting rod (pramāṇa śalākā) is 1 , fruit accidental period (phala-upakrama kāla) is 2

∅ and requisition counting rod (icchā śalākā) is ॡ ॡ — . There the acquisition set (labdha rāśi) is, corresponding to all time, the pure accidental (upakrama) period as

2 ॡ ॡ —
∅

Again, measure-set (pramāṇa rāśi) is all-time (sarva kāla) as 2 ॡ ॡ ॡ , the fruit-set (phala rāśi) pure accidental (upakrama) period is 2 ॡ ॡ —
∅

the requisition set (icchā rāśi) is the non-developable (aparyāpta) period as 2 ॡ .

Then the acquisition-set (labdha rāśi) measures the pure accidental (upakrama) period corresponding to non-developable period as 2 ॡ —
∅

Hence the earlier mentioned vyantara set is divided by the pure accidental (upakrama) counting-rods (śalākā) corresponding to all-time (sarva kāla), and multiplying by pure accidental (upakrama) counting-rods (śalākās) corresponding to non-developable-period (aparyāpta-kāla), we get the measure of the transforming (vaikriyika) mixed volitional bios (yogīs) among the vyantara-set as

$$\begin{array}{c}
 = 2 \text{ २ } — \\
 \partial \quad o \\
 4 \mid 65 = 81 \mid 10 \mid 2 \text{ २ } \text{ २ } — \\
 \partial
 \end{array}$$

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Into this are to be mixed the remaining divine bios and the hellish mixed volitional-bios (yogī jīvas), hence above this expression symbol for excess is placed above. This the total transforming (vaikriyika) mixed-volitional (miśra yogī) bios-set is

$$\begin{array}{c}
 \parallel \\
 = 2 \text{ २ } — \\
 \partial \quad o \\
 4 \mid 65 = 181 \mid 10 \mid 2 \text{ २ } \text{ २ }
 \end{array}$$

Again from among the triple-volitional-bios (triyogī jīvas), from among the number of the bodily-volitional (kāya yogīs), for subtraction the number of the physical-bodily-volitional (audārika kāya yogīs), symbol of = is placed, hence the number of the transforming bodily-yogis (baikriyika-kāya yogīs) becomes

$$\begin{array}{c}
 \parallel \parallel \\
 = 1360 \text{ 1 } = \\
 \text{ २ } \\
 4 \mid 65 = 1 \mid 1701
 \end{array}$$

Again the assimilating bodily-volitional (āhāraka kāya yogīs) are fifty four, and the assimilating mixed-volitional (āhāraka miśra yogīs) are twenty seven.

SYMBOLISM ON SEX-WAYWARD (VEDA MARGAṆĀ)

Now the symbolism (saṁdṛṣṭi) is described in the chapter the pathos-wayward (veda mārgaṇā). There the biōs-set of the astral-divine (jyotiṣka-deva) amounts to the universe-square (jaga-pratara) $4 \mid 65 =$ prompt-set (pradeśa-rāśi) divided by $(2)^{2 \mid (4)}$ finger-square point-set (pañṇatṭhī pratarāṅgula pradeśa rāśi) as

This is divided respectively by numerate २, once, twice, thrice, four times, five times, and six times, resulting in the measure of bios-set denominated as the 'vyantara', the subhuman-fluent-female (tiryañca dravya strī), the subhuman-fluent-male (tiryañca dravya puruṣa), the subhuman-rational-five-sensed (tiryañca saṁjñī pañcendriya), the subhuman-rational-five sensed (tiryañca saṁjñī pañcendriya) having yellow complex (tejo-leśyā), and the sub-human rational five-sensed (tiryañca saṁjñī pañcendriya) having pink complex (padma leśyā). The table is as follows :

TRANSCRIPTION

tiryañca padma leśyā vāle	= 4 65 = ३ ३ ३ ३ ३ ३
tiryañca pīta leśyā vāle	= 4 65 = ३ ३ ३ ३ ३
saṁjñī tiryañca	= 4 65 = ३ ३ ३ ३
puruṣa tiryañca	= 4 65 = ३ ३ ३
strīvedī tiryañca	= 4 65 = ३ ३
vyantara deva	= 4 65 = ३
jyotiṣka deva	= 4 65 =

Again corresponding to four life-courses (gatis), in the divine-life-course (devagati), the measure of the female-pathetic bios-set (strīvedī jīva rāśi) is obtained by dividing its, general-set (sāmānya rāśi) on dividing its by this by thirty-three and multiplying it by thirty-two. On multiplying this by one, the measure of the male-pathetic (puruṣa vedī) bios-set is obtained. There is no common-sex-pathetic-bios (napuṁsaka-vedī-jīva). Again, among the human life-course (manuṣyagati) for cubing the $(2)^{(2)^5}$ or

(bādāla) ahead of the $(2)^{(2)^{(5)}}$ is written the symbol three to be note its multiplication mutually three times, and dividing the result by four, the measure of the male-pathetic (puruṣa-vedī) bios-set is obtained. When this is divided by four and multiplied by three, measure of the female-pathetic (strī-vedī) bios-set is obtained. For subtraction this from the general-set (sāmānya-rāśi), the symbol for subtraction of numerate is made ahead so that the measure of common-sex-pathetic (napuṁsaka-vedī) bios-set is obtained.

In the sub-human-life-course (tiryañca-gati), when square of six hundred yojanas, is multiplied by $(2)^{(2)^{(4)}}$, ie., pañṇatthī, eighty-one, and four, and writing ten small circles (vindīs) ahead, we get as many finger-squared (pratarāṅgula) point-set (pradeśa-rāśi). When the universe-square (jagapratarā) point-set (pradeśa-rāśi) is divided by this point-set (pradeśa rāśi), the measure of female-pathetic (strī-vedī) bios-set is obtained. Numerae part of this is the male-pathetic (puruṣa vedī) bios-set. In order to subtract these and also the bios-sets of three life-courses (gatis) from the mundane-set (saṁ sārī-rāśi), symbol of slightly less is made getting the measure of the common-sex-pathetic (napuṁsaka-vedī) bios set. In the hellish-life-course (nārakū-gati), all the common-sex-pathetic (napuṁsaka-vedī) is of general-set (sāmānya-rāśi) measure.

TRANSCRIPTION

Note that paṇṇaṭṭhī is $65 = \text{or } [2]^{[2]^4}$

and bādāla is $42 = \text{or } [2]^{[2]^5}$

nāma (name)	puṛuṣa vedī (male sexual)	strī vedī (female sexual)	napuṃsaka vedī (erunuch seaul)
devagati (divine life-course)	$\begin{array}{c} \parallel \\ = 1 \quad 1 \\ \quad \quad \quad \text{३} \\ 4 \mid 65 = \mid 1 \mid 33 \end{array}$	$\begin{array}{c} \parallel \\ = 32 \quad 1 \\ \quad \quad \quad \text{३} \\ 4 \mid 65 = \mid 1 \mid 33 \end{array}$	0
manuṣya gati (human life-course)	$\begin{array}{c} 42 = 3 \\ 4 \end{array}$	$\begin{array}{c} 42 = 3 \mid 3 \\ 4 \end{array}$	$\begin{array}{c} 0 - \text{३} \\ \frac{1}{13} \end{array}$
tiryañca gati (sule human life-couse)	$\begin{array}{c} = \quad \quad \quad 0 \\ 4 \mid 65 = \mid 81 \mid 4 \mid 10 \text{ ३} \end{array}$	$\begin{array}{c} = \quad \quad \quad 0 \\ 4 \mid 65 = \mid 81 \mid 4 \mid 10 \end{array}$	13 —
naraka gati (hellish life-couse)	0	0	—2

Note that in ASG, second column, second row from below, 0 is not placed exactly above 10

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In this way above the symbolism of the divine bios with male-sex (puṛuṣa veda) and female sex (strī veda), the symbol for mixing human (manuṣya) subhuman (tiryañca) male (puṛuṣa) female (strī) sex (vedī) bios-sets is \parallel , which when so effected gives the symbolism of all male-sex-bios-set (puṛuṣa-vedī-jīva-rāṣi) and female-sex bios-set (strī vedī-jīva-rāṣi).

Further, the symbolism for subtracting three sets, viz., two sex and one non-sex bios-sets is \equiv . This is placed ahead of the mundane-set (saṃsārī-rāṣi), we have the symbolism of all common-sex (napuṃsaka-veda) bios-sets. The matrix there of is as follows :

TRANSCRIPTION

puṛuṣa (male)	strī (female)	napuṃsaka (eunuch)
$\begin{array}{c} \parallel \\ = \parallel \quad 1 \\ \quad \quad \quad \text{३} \\ 4 \mid 65 = \mid 1 \mid 33 \end{array}$	$\begin{array}{c} \parallel \\ = \parallel \quad 1 \\ \quad \quad \quad \text{३} \\ 4 \mid 65 = \mid 1 \mid 33 \end{array}$	13 \equiv

The following eleven types of bios-sets are established one above the other : the rational-five-sensed womb born common-sex bios-set (saṁjñī pañcendrī-garbhaya napuṁsaka-vedī),
 the rational-five-sensed-womb-born-male-sex bios-set
 (saṁjñī-pañcendrī-garbhaya-puruṣa vedī),
 the rational-five sensed-womb-born-female-sex bios-set
 (saṁjñī-pañcendrī-garbhaya-strī vedī),
 the spontaneously-generated (sammūrchana) irrational five-sensed
 (asaṁjñī-pañcendriya) developable (paryāpta) common-sex bios-set (napuṁsaka vedī),
 the spontaneously-generated rational five-sensed developable common-sex bios set (sammurchana saṁjñī
 pañcendriya paryāpta napuṁsaka vedī)
 the pleasant-land-born rational five sensed developable female or male sex bios-set (bhaga bhūmiyām
 saṁjñī pañcendriya paryāpta strī va puruṣa vedī),
 the irrational five sensed-womb-born common-sex bios-set
 (asaṁjñī pañcendriya garbhaya napuṁsaka vedī),
 the irrational five sensed womb-born male sex bios-set
 (asaṁjñī pañcendriya garbhaya puruṣa vedī),
 the irrational five sensed womb-born female-sex bios-set
 (asaṁjñī pañcendriya garbhaya strī vedī),
 the vyantara or astral (vyantara vā jyotiṣka),.

Whatever the set (rāśi) below, that is obtained when universe square (jagapratara) = is divided by
 the numerate ८ eight times, and by innumerate part of trail-cubed (ghanāvalī) 8 , and by innumerate
 ∂
 part of pit (palya) $\frac{pa}{\partial}$ and by the $[2]^{[2]^4}$ into finger squared (pañṇatthī pratarāṅgula) $4 \mid 65 =$.

Above it are the second, third, fourth sets, etc., which are respectively numerate ८ times the
 preceding. The fifth set its innumerate part of trail (āvalī) times, 8 five times, the sixth set is
 ∂
 innumerate part of pit (palya), that is, $\frac{pa}{\partial}$ times. The seventh, eighth, ninth, tenth, eleventh sets are
 ∂
 respectively numerate times. Hence when the numerator and denominator are similar, they are
 cancelled, getting the following result as symbolism for these eleven sets :

TRANSCRIPTION

jyotiṣka (astral)	= 4 65 =
vyantara (a spirit)	= 4 65 = ३
asaṁ = paṁ = ga = strī	= 4 65 = ३ ३
asaṁ = paṁ = ga = puruṣa	= 4 65 = ३ ३ ३
asaṁ = paṁ = ga = napuṁ	= 4 65 = ३ ३ ३ ३
bho = saṁ = paṁ = ga = pu = strī	= 4 65 = ३ ३ ३ ३ ३
sa = saṁ = paṁ = napuṁsaka	= 4 65 = ३ ३ ३ ३ ३ pa ०
sa = asaṁ = paṁ = napuṁsaka	= 4 65 = ३ ३ ३ ३ ३ pa 8 ० ०
saṁ = paṁ = ga = strī	= 4 65 = ३ ३ ३ ३ ३ pa 8 ३ ० ०
saṁ = paṁ = ga = puruṣa	= 4 65 = ३ ३ ३ ३ ३ pa 8 ३ ३ ० ०
saṁ = paṁ = ga = napuṁsaka	= 4 65 = ३ ३ ३ ३ ३ pa 8 ३ ३ ३ ० ०

**SYMBOLISM ON AFFECTION-WAY WARY
(KAṢĀYA MĀRGAṆĀ)**

Now the symbolism is described on the chapter of the affection-wayward (kaṣāya-mārgaṇā). There the total rise-stations (udaya-sthānas) of affections (kaṣāyas) is innumerate-universe (asaṁkhyāta loka) as $\equiv 0$.

Again the symbolism for the counter part (pratibhāga) for the conformally consistant innumerate-universe (asaṁkhyāta-loka) is the digit of nine, 9, that is the divisor, then the major part there of and major part there of is to be given to those which are associated with more intense, intence and mild energy.

There the multiplier is eight, and the divisors are to be known as once, twice, thrice the divisor nine respectively, and one part there of is to be given to that associated with milder energy. There the multiplier is one and divisor is the nine taken three times. In this way there is division corresponding to four terms (padas).

Now the division is related corresponding to fourteen terms (padas) :-

Corresponding to the more intense, all stations (sthānas) belong to the black complex (kṛṣṇa-leśyā) as

$$\begin{array}{r} \equiv \partial \ 8 \\ 9 \end{array}$$

When the preceding is divided by the counter-part, the major part there of, major part there of, is to be given to black (kṛṣṇa), etc., one, two, three, four, five stations (sthānas) associated with complexes (leśyās). There the multiplier is eight, and divisor is to be known to be nine, for once, twice, thrice, four times and five times respectively.

Further one part is to be given to stations (sthānas) associated with six complexes (leśyās). There the multiplier is one, and the divisor is nine for five times. Here the symbolism for once, twice, etc., are the digits of one, two, etc., ahead of nine.

Now corresponding to the mild, the measure of all stations is as follows :

$$\begin{array}{r} \equiv \partial \ 8 \\ 9 \ 9 \ 9 \end{array}$$

This is divided by the counter part 9, then the major part there of, the major part there of are to be given to the stations (sthānas) of the complexes (leśyās) as blue, etc., five; grey (kāpota), etc., four; yellow, etc., three, pink etc., two. There those have eight as multiplier, and the nine as the divisor once, twice, thrice, four-times, five times respectively. One part is to be given to the stations (sthānas) of the white complex (leśyā). There the multiplier is one and the divisor, is nine for five times. Here also, the symbolism for once, etc., are placed as digits of one, two, etc. The total stations for the milder are

$$\begin{array}{r} \equiv \partial \ 1 \ 1 \\ 9 \ 9 \ 9 \end{array}$$

belonging to the white complex (leśyā)

Now there are described corresponding to twenty terms (padas) :

Among the more intense, the stations of the black complex (leśyā) are

$$\begin{array}{r} \equiv \partial \ 8 \\ 9 \end{array}$$

which are divided by the counter part, and the major part there of is to be given to the stations (sthānas) of age-bond (āyū bandha), and one part there of is to be given to the hellish-age-bond (narakāyū-bandha) stations (sthānas).

There that is divided by nine. The major part has one as multiplier corresponding to one part out of eight.

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Again, corresponding to the intense, all the stations of the black (kṛṣṇa), and black (kṛṣṇa) etc., two complex as (leśyās), causal for the bond of hellish age, are as

$$\begin{array}{r} \equiv \partial \ 1 \ 8 \ 1 \ 8 \\ 9 \ 1 \ 9 \ 1 \ 9 \ 1 \ 1 \end{array} \quad \begin{array}{r} \equiv \partial \ 1 \ 8 \ 1 \ 8 \\ 9 \ 1 \ 9 \ 1 \ 9 \ 1 \ 2 \end{array}$$

Again the stations (sthānas) of black (kāṣṇa) etc., of three complexes (leśyās) are

$$\begin{array}{c} \equiv \quad \partial \mid 8 \mid 8 \\ 9 \mid 9 \mid 9 \mid 1 \end{array}$$

That is divided by the counter part, major part, major part there of is to be given to bond-stations (bandha-sthānas) corresponding to hell (naraka) and hell (naraka) sub human (tiryañcā) age.

There it is multiplied by eight and divided by nine two times. One part there of is to be given into the bond-stations (bandha-sthānas) corresponding to hell (naraka), etc., three ages (āyus). Here multiplier is one, and divisor is nine kept two times there.

Here also for placing of 9 once, twice, digits of one, two are placed ahead of 9 in the denominator.

Again, all stations (sthānas) of black (kāṣṇa), etc., four, five and six complexes (leśyas), are causal for bonding of all the four ages (āyus), and are as follows:

$$\begin{array}{ccc} \equiv \quad \partial \mid 8 \mid 8 & \equiv \quad \partial \mid 8 \mid 8 & \equiv \quad \partial \mid 8 \mid 1 \\ 9 \mid 9 \mid 9 \mid 4 & 9 \mid 9 \mid 9 \mid 5 & 9 \mid 9 \mid 9 \mid 5 \end{array}$$

Again the stations (sthānas) associated with black (kāṣṇa) etc., six complexes (leśyās) corresponding to the mild are as

$$\begin{array}{c} \equiv \quad \partial \mid 8 \mid 8 \\ 9 \mid 9 \mid 9 \mid 9 \mid 1 \end{array}$$

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This is divided by the counter part, the major part, major part there of are to be given into stations (sthānas) of four ages (āyus), and three ages (āyus) excluding the hell-age (naraka āyu). There, it has eight as multiplier, and the divisor is to be known as once, twice respectively.

One part is given into the bond-stations (bandha-sthānas) corresponding to two ages (āyus) excluding that of the hell (naraka) and the subhuman (tiryañca). There is to be known one as multiplier and divisor as nine placed two times. Here also, symbol for once, twice, is to be known as one, two digits placed ahead of nine.

Again all stations of blue (nīla) etc., five, grey (kāpota) etc., four, complex (leśyas), causal for one divine-age (devāyu) bond, as

$$\begin{array}{ccc} \equiv \quad \partial \mid 8 \mid 8 & \equiv \quad \partial \mid 8 \mid 8 \\ 9 \mid 9 \mid 9 \mid 9 \mid 2 & 9 \mid 9 \mid 9 \mid 9 \mid 3 \end{array}$$

Again the stations (sthānas) of yellow (pīta) etc., three complexes (leśyas) are as

$$\begin{array}{c} \equiv \quad \partial \mid 8 \mid 8 \\ 9 \mid 9 \mid 9 \mid 9 \mid 4 \end{array}$$

This is divided by nine which is the counter part (pratibhāga), and the major part there of is to be given into stations (sthānas) causal for bond of divine age (devāyu).

One part there of is given to age (āyu) non-bond (abandha) stations (sthānas). Corresponding to major part there of, in the one part out of eight, multiplier is one, corresponding to both, divisor as nine once, for it is to be known.

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Again all stations (sthānas), of pink (padma), etc., two and white complex (śukla-leśyā) not causal for age-bond (āyu bandha) are as

$$\begin{array}{ccc} \equiv & \partial & | & 8 & | & 8 \\ 9 & | & 9 & | & 9 & | & 5 \end{array} \quad \begin{array}{ccc} \equiv & \partial & | & 8 & | & 1 \\ 9 & | & 9 & | & 9 & | & 5 \end{array}$$

Again corresponding to milder, all stations of white-complex (śukla-leśyā), not causal for the age-bond (āyu bandha) are as

$$\begin{array}{ccc} \equiv & \partial & 1 \\ 9 & | & 9 & | & 9 \end{array}$$

Thus stations (sthānas) have been stated, whose structure is given as follows :

TRANSCRIPTION

cyāripada vā lina viṣairṇ saṁkhyā	tīviatara $\equiv \partial 8$ 9	(number in fourth or third term)
caudaha pada	kṛṣṇa 1 (black)	(fourteenth term) (number in fourteenth term)
caudaha pada viṣai saṁkhyā	$\equiv \partial 8$ 9	
vīsa pada	0 1 narakāyu	(twentieth term)
vīsa padāni viṣai saṁkhyā	$\equiv \partial \ 8 \ 8$ $\equiv \partial \ 8 \ 1$ 9 8 9 8	(number in twentieth term continued)

continued

tīvra | ≡ | 8
(intense) 9 | 9

kr̥ṣṇa 1 (black)	kr̥ṣṇādi 2 (black etc.)	kr̥ṣṇādi 3 (black etc.)	kr̥ṣṇādi 4 (black etc.)	kr̥ṣṇādi 5 (black etc.)	kr̥ṣṇādi 6 (black etc.)
≡ 0 8 8 9 9 9 1	≡ 0 8 8 9 9 9 2	≡ 0 8 8 9 9 9 3	≡ 0 8 8 9 9 9 4	≡ 0 8 8 9 9 9 5	≡ 0 8 8 9 9 9 6
1 narakāyu	1 narakāyu	1 narakāyu	1 narakāyu	2 na = ti =	2 na = ti =
≡ 0 8 8 9 9 9 1	≡ 0 8 8 9 9 9 2	≡ 0 8 8 9 9 9 3	≡ 0 8 8 9 9 9 4	≡ 0 8 8 9 9 9 5	≡ 0 8 8 9 9 9 6

continued

TRANSCRIPTION continued

manda ≡ 0 8 9 9 9						
kṛṣṇādi 6 (black etc.)		nīlādi 5 (blue etc.)	kāpotādi 4 (gray etc.)	pītādi 3 (yellow etc.)	padmādi 2 (pink etc.)	śukla 1 (white etc.)
≡ 0 8 8 9 9 9 1		≡ 0 8 8 9 9 9 2	≡ 0 8 8 9 9 9 3	≡ 0 8 8 9 9 9 4	≡ 0 8 8 9 9 9 5	≡ 0 8 1 9 9 9 5
4 sarva	3 naraka vinā	2 ma=deva=	1 devāyu	1 devāyu	0	0
≡ 0 8 8 8 9 9 9 9 1	≡ 0 8 8 8 9 9 9 9 2	≡ 0 8 8 1 9 9 9 9 2	≡ 0 8 8 9 9 9 3	≡ 0 8 8 8 9 9 9 4 9 1	≡ 0 8 8 9 9 9 5	≡ 0 1 9 9 9

continued

mandatara (milder)
$\equiv \partial \mid 1$ 9 9 9
śukla 1
$\equiv \partial \mid 1 -$ 9 9 9
0
$\equiv \partial \quad 1$ 9 9 9

Note : Vide GJK vol. 1, 498 for a similar table.

ASG p. 122 (ka)

Again, corresponding to the number of bios (jīvas) the periods of greed (lobha) etc., of the hellish (nārakīs), and that of the anger (krodha), etc., of the divine (devas) extends from one inter-muhūrta (antar-muhūrta), 2 ॡ 1, respectively numerate times, where the symbol for numerate is the digit of four as becomes as follows :

TRANSCRIPTION

naraka kāla (hell period)	krodha (anger) 2 ॡ 64	māna (pride) 2 ॡ 16	māyā (deceit) 2 ॡ 4	lobha (greed) 2 ॡ 1
deva kāla (divine period)	krodha (anger) 2 ॡ 1	māna (pride) 2 ॡ 4	māyā (deceit) 2 ॡ 16	lobha (greed) 2 ॡ 64

Sum total of the above is 2 ॡ | 85 which is made the measure-set (pramāṇ rāṣi). The fruit-set (phala rāṣi) is the general-measure (sāmānya pramāṇa) of the hellish (nārakīs) and the divine (devas) as

$$\begin{array}{rcl}
 \text{nāraka} & & \text{deva} \\
 \text{(hell)} & & \text{(divine)} \\
 & & \parallel \\
 - 2 & = & 9 - \\
 & & ॡ \\
 & & 1 \\
 4 | 65 = & & 1
 \end{array}$$

The requisition-set (icchā rāṣi) is their own affection period (kaṣāya-kāla). Then on multiplying the fruit-set by the requisition-set and dividing it by the measure-set, we get the on cancelling the inter-muhūrta (antar-muhūrta), the measure of the angry etc., the hellish (nārakī) and the divine as follows in the matrix.

nāma (name) nāraka (hellish)	krodhī (angry) – 2 64 85	mānī (proud) – 2 16 85	māyāvī (deceit ful) – 2 4 85	māyāvī (deceit ful) – 2 1 85
deva (divine)	$= 1 \quad \begin{array}{c} \parallel \\ 1 \\ \text{ॐ} \end{array}$ $4 65 = 1 85$	$= 4 \quad \begin{array}{c} \parallel \\ 1 \\ \text{ॐ} \end{array}$ $4 65 = 1 85$	$= 16 \quad \begin{array}{c} \parallel \\ 1 \\ \text{ॐ} \end{array}$ $4 65 = 1 85$	$= 64 \quad \begin{array}{c} \parallel \\ 1 \\ \text{ॐ} \end{array}$ $4 65 = 1 85$

In the chapter on sense way-ward (indriya-mārgaṇā), for finding out the measure of the two-sensed, the three--sensed, the four sensed, the five-sensed bios corresponding to the mobile-set (trasa-rāṣi), the rule was stated about equal division through given part similarly the general set of the human (manuṣya), the sub human (tiryāṅcas) are

13 -

nāma	lobhī (greedy)	māyāvī (deceitful)	krodhī (angry)	mānī (proud)	0
manuṣya (human)	8 1- 1 3 9 4	8 1- 1 3 9 4	8 1- 1 3 9 4	8 1- 1 3 9 4	samāna bhāga
	8 1- 1 3 9 4	8 1- 1 3 9 9 9	8 1- 1 3 9 9 9 9	8 1- 1 3 9 9 9 9	deya bhāga
tīryaṇca (sub- human)	13 — 8 9 4	13 — 8 9 4	13 — 8 9 4	13 — 8 9 4	samāna bhāga
	13 — 8 9 9	13 — 8 9 9 9	13 — 8 9 9 9 9	13 — 8 9 9 9 9 9	deya bhāga

At the question mark, there may be 8 for consistant results. Again there alone, whatever rule has been stated, in that way, here the equal part and the given part are to be added by equi-divisor (least common multiple) method, the measure of the greedy, etc., bios-sets as follows :

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nāma	lobhī (greedy)	māyāvī (deceitful)	krodhī (angry)	mānī (proud)
manuṣyā (human)	1— — 84 24 1 3 4 65 61	1— — 61 20 1 3 4 65 61	1— — 58 64 1 3 4 65 61	1— — 58 36 1 3 4 65 61
tiryāṇca (sub human)	13 – 84 24 4 65 61	13 – 61 20 4 65 61	13 – 58 64 4 65 61	13 – 58 36 4 65 61

Or, corresponding to the human (manuṣya), sub-human (tiryāṇca), relative to time also, similarly during the period of affections (kaṣāyas), amounting to inter-muhūrta (antar-muhūrta), the addition of equal part and given part when added through equi-divisor [least common multiple] (samaccheda), getting :

ASG p. 125 TRANSCRIPTION

nāma (name)	lobha kāla (greed period)	māyā kāla (deceit period)	krodha kāla (anger period)	māna kāla (pride period)
sama bhāga (equal part)	2 २ 8 9 4	2 २ 8 9 4	2 २ 8 9 4	2 २ 8 9 4
deya bhāga (given part)	2 २ 8 9 9	2 २ 8 9 9 9	2 २ 8 9 9 9 9	2 २ 1 9 9 9 9 1
samaccheda kari milāyā huvā kāla (period added after making denominator equal)	2 २ 84 24 4 65 61	2 २ 61 20 4 65 61	2 २ 58 64 4 65 61	2 २ 58 36 4 65 61

Here the inter muhūrta (antar-muhūrta) is 2 २ which is made the measure-set (pramāṇ rāṣi), and the human-set (manuṣya rāṣi) and subhuman set (tiryāṇca rāṣi) is made the fruit-set (phala-rāṣi), and the mixed amount through equi-divisor (samaccheda) is made the requisition-set (icchā-rāṣi), the measure of the greedy etc., of the human (manuṣyas) and the sub-human (tiryāṇcas) comes to be the same.

The human-set (manuṣya-rāṣi) and the subhuman set (tiryāṇca-rāṣi) is multiplied, relative to symbolism respectively by 8424, 6120, 5864, 5836, then divide every where by four as multiplied 6561, getting the measure of the greedy (labhi), the delusive (mayāvī), the angry (krodhī) the proud (maṇī).

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SYMBOLISM ON KNOWLEDGE-WAYWARD (JÑĀNA MĀRGAṆĀ)

Further symbolism is stated on the chapter of knowledge-way-ward (jñāna-mārgaṇā) - . There corresponding to the developable (paryāpta) aggregate (samāsa) scriptural-knowledge, there is description of six-stationed-cascade-increase (ṣaṭ-sthāna patita vṛddhi). There the symbolism of division etc. by infinite is to be known as

TRANSCRIPTION

nāma (name)	ananta bhāga (infinite part)	asamkhyāta bhāga (innumerate part)	samkhyāta bhāga (numerate part)	samkhyāta guṇā (numerate times)	asamkhyāta guṇā (innumerate times)	ananta guṇā (infinite times)
sāmānya anantādi sarindṛṣṭi (general infinite etc. symbolism)	kha	∅	३	३	∅	kha
viśeṣajīva rāśi ādi kī sarindṛṣṭi (symbolism of specific bios-set etc.)	16	≡ ∅	15	15	≡ ∅	16
ananta bhāgādi ki laghu sarindṛṣṭi (abbreviated symbolism of infinite part etc.)	u	4	5	6	7	8

Here in the first row, the symbols for infinite is kha, for innumerate is ∅, for numerate is ३, and in the second row, the symbol for infinitesimal part, etc., is to be known as urvaṅka [alphābet u] etc.

Again in the increase etc. of infinitesimal part, the symbol for urvaṅka etc., is written. and when there is earlier increase as many times as the innumerate part of finger (aṅgula) point-set (pradeśa-rāśi), there is once other increase, then the symbol for innumerate part of linear-finger (sūcyaṅgula) point-set (pradeśa rāśi) is written as ūrvaṅka two times. Then the matrix (yantra) becomes as follows :

TRANSCRIPTION

2 1 ∂	2 2 ∂ ∂	2 1 ∂	2 1 ∂	2 2 ∂ ∂	2 1 ∂ ∂	2 1 ∂	2 2 ∂ ∂	2 1 ∂	
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 6	1
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 6	2 ∂
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 7	1
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 6	2 ∂
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 6	1
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 7	2 ∂
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 6	1
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 6	2 ∂
u u 4	u u 4	u u 5	u u 4	u u 4	u u 5	u u 4	u u 4	u u 8	1

The implication of this matrix is to be known from the commentary (Cf. GJK, vol.2, pp. 531-534)

Above the matrix, wherever has been written 2 1, there the arbitrarily chosen increase is to
∂

be known as innumerate part of linear-finger (sūcyaṅgula) point-set (pradeśa-rāśi) times the quotient set denoting the frequency of the increase. And wherever is written 2 2, there the product set of 2
∂ ∂ ∂
is implied, ie. increase frequency is innumerate part of linear finger (sūcyaṅgula) into innumerate part of linear-finger (sūcyaṅgula).

Again corresponding to horizontal (tiryaḥ) row (pankti), wherever, ahead of six, etc., digit of one is written, there should be known to be numerate times increase etc., only once.

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Wherever is written 2, there the increase is to be known as many times as is the innumerate
∂ part of linear-finger (sūcyaṅgula) point-set (pradeśa-rāśi).

Now the symbol of the least-knowledge or the minimal knowledge (jaghanya knowledge), called event (paryāya), in the sequence of this increase is ja. When this is divided by the set of all bios (jīva rāśi) which is infinite, one part there of is considered as giveable (deya) and one part is added through equi-divisor (samaccheda) method, we then get the first station (sthāna) continued after the ASG p. 127.

ASG p. 127- ka

There, corresponding to the types of infinitesimal part of increase (ananta-bhāga vṛddhi), above is the minimal (jaghanya), and lower and lower are the projections (praksepakas) amounting to number

of terms (gaccha), the projector-projections (prakṣepaka-prakṣepakas) amounting to summation once of the number of terms (gaccha) as reduced by unity, the granular (piśuli) amounting to the two times summation of the number of terms (gaccha) as reduced by two, the granular-granular (puśuli-piśuli) amounting to summation three times of the number of terms as reduced by three, the powder (cūrṇi) amounting to the summation four times of the number of terms as reduced by four, and the powder-powder (cūrṇi-cūrṇi) amounting to the summation five times of the number of terms (gaccha) as reduced by five, etc. This established in sequence becoming as follows :

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TRANSCRIPTION

nāma (name)	Prathama sthāna (first station)	dvitīya sthāna (second station)	tātīya sthāna (third station)	caturthā sthāna(fourth station)	pañcana sthāna (fifth station)	ṣaṣtha sthāna (sixth station)
jaghanya (minimal)	ja	ja	ja	ja	ja	ja
prakṣepaka (projector)	ja 1 16	ja 2 16	ja 3 16	ja 4 16	ja 5 16	ja 6 16
	prakṣepaka- prakṣepaka (projector- projector)	ja 1 16 16	ja 3 16 16	ja 6 16 16	ja 10 16 16	ja 15 16 16
		piśuli (infinitesimal process)	ja 1 16 16 16	ja 4 16 16 16	ja 10 16 16 16	ja 20 16 16 16
			piśuli- piśuli infinitesimal process infinitesimal process)	ja 1 16 16 16 16	ja 5 16 16 16 16	ja 15 16 16 16 16
				cūrṇi (pulverized)	ja 1 16 16 16 16 16	ja 6 16 16 16 16 16
					cūrṇi cūrṇi	ja 16 16 16 16 16 16
						dvi cūrṇi-cūrṇi ādi

continued from the previous page

madhyama sthāna) (middle stations)	anta sthāna (last station)	
0 0 0	ja	
0 0 0	ja 2 16 ∂	
0 0 0	ja 2 - 1 2 16 16 ∂ 2 ∂ 1	
0 0 0	ja 2- 2 2- 1 2 16 16 16 ∂ 3 ∂ 2 ∂ 1	
0 0 0	ja 2 - 3 2 - 2 2 - 1 2 16 16 16 16 ∂ 4 ∂ 3 ∂- 2 ∂ 1	
0 0 0	ja 2- 4 2 - 3 2 - 2 2 -1 2 16 16 16 16 16 ∂ 5 ∂ 4 ∂ 3 ∂ 2 ∂ 1	
0 0 0	ja 2- 5 2 - 4 2 - 3 2 - 2 2 - 1 2 16 16 16 16 16 16 ∂ 6 ∂ 5 ∂ 4 ∂ 3 ∂ 2 ∂ 1	
0 0 0	0 0 0 0	
dvicarama cūrṇi cūrṇi (last but one pulverized- pulverized)	ja 2 1- 16 2 ∂ ∂	
	anta cūrṇi-cūrṇi (last pulverized- pulverized)	ja 1 16 2 ∂

of infinitesimal part (ananta-bhāga) increase as

$$\begin{array}{l} \text{ja} \\ 1- \\ 16 \mid 2 \\ \partial \end{array}$$

Here there is division by the bios-set (jīva-rāśi) and multiplication of the bios-set (jīva-rāśi) as increased by unity.

Similary this is divided by the bios-set (jīva-rāśi) and adding one part, we get the second division (bheda) or type as

$$\begin{array}{c} 1- \quad 1- \\ \text{ja} \quad 16 \quad 16 \\ \quad 16 \quad 16 \end{array}$$

Similarly going ahead innumerate part of linear-finger (sūcyaṅgula times, there is reached the last station (anta-sthāna) of the infinitesimal part-increase (ananta-bhāga-vṛddhi).

There, the least or the minimal (jaghanaya) is divided by the infinite equal to the bios-set (jīva-rāśi), once, twice, thrice, four times, five times, six times, respectively, we get the projector or projectile (prakṣepaka), projector-projector (prakṣepaka-prakṣepaka) and granular (piśuli), granular-granular (piśuli-piśli), and powder (cūrṇi), powder-powder (cūrṇi-cūrṇi) :

prakṣepaka (projector)	prakṣepaka (projector- projector)	piśuli (infinitesimal process)	piśuli-piśuli (infinitesimal- infinitesimal- process)	cūrṇi (pulverized)	cūrṇi-cūrṇi (pulverized- pulverized)
ja	ja	ja	ja	ja	ja
16	16 16	16 16 16	16 16 16 16	16 16 16 16 16	16 16 16 16 16 16

In this sequence, the minimal (jaghanaya) is divided by the bios-set (jīva-rāśi) symbolized as 16 , a many times as is the point-set (pradeśa rāśi) given by innumerate part of linear-finger (sūcyaṅgula) as reduced by unity. Thus we get the last but one powder-power (cūrṇi-cūrṇi), as

$$\begin{array}{c} \text{ja} \\ 1- \text{c} \\ 16 | 2 \\ \partial \end{array} \quad \text{Note that } 1- \text{ shown in ASG and here should have been } 1- \text{c} .$$

Further when the minimal (jaghanaya) is divided by the bios-set (jīva rāśi) as many times as is the innumerate part of the linear-finger (sūcyaṅgula), we get the last powder-powder (cūrṇi-cūrṇi), as

$$\begin{array}{c} \text{ja} \\ 16 | 2 \\ \partial \end{array}$$

ASG p. 128 Here is to be known this : When the minimal (jaghanaya) and one projector (prakṣepaka) are added, there happens to be the first-station (prathama-sthāna) of infinitesimal-part-increase (ananta bhāga-vṛddhi). Further the minimal (jaghanaya) when added with two projectors (prakṣepakas) and one projector-projector (prakṣepaka-prakṣepaka), we get the second station (sthāna).

When minimal (jaghanaya) is added with three projectors (prakṣepakas) and three projector-projector (prakṣepaka-prakṣepakas) and one granular (piśuli) then the third station (sthāna) is obtained.

Again, when to the minimal (jaghanaya) we add four projectors (prakṣepakas), six projector-projectors (prakṣepaka-prakṣepakas) and four granular (piśuli) as well as one granular-granular (piśuli-piśuli), we get the furth station (sthāna). Again when to the minimal (jaghanaya) added five projectors (prakṣepakas), ten projector-projectors (prakṣepaka-prakṣepakas), ten granular (piśuli), five granular-granular (piśuli-piśuli), and one powder (cūrṇi), we get the fifth station.

Similarly, when we add to the minimal (jaghanya), six projectors (prakṣepakas), fifteen projector projectors prakṣepaka-prakṣepakas), twenty granular (piśuli), twenty granular granular (piśuli-piśuli), six powder (cūrṇi), one powder powder (cūrṇi-cūrṇi), we get the sixth station (sthāna).

For the middle stations, gaps have been shown by symbols of small circles (vindis).

In order to get the last station (sthānas), to the minimal we add the projector (prakṣepaka) as multiplied by number of terms (gaccha), 2 which is innumerate part of linear-finner-point-set (sūcyaṅgula-

∂

pradeśa rāśi); and then we add the projector-projector (prakṣepaka prakṣepakas) obtained as acquisition-set (labdha rāśi) obtained on mutually multiplying the number of terms (gaccha) as divided by one as

$$\begin{array}{ccc} 2 & - & 1 & 2 \\ \partial & & 2 & \partial & 1 \end{array}$$

where symbol – denote subtraction from the original-set (mūla rāśi). To that sum we further add the resulting measure obtained when granular (piśuli) as multiplied mutually by

$$\begin{array}{ccc|ccc} 2 & - & 2 & 2 & - & 1 & 2 \\ \partial & & 3 & \partial & & 2 & \partial & 1 \end{array}$$

Note : In ASG, there is 1 in place of 2 is first box, second column.

3

3

where there are respectively number of terms (gaccha) as reduced by two, and number of terms (gaccha) as reduced by unity, and complete number of terms (sampūrṇa gaccha), each respectively divided by three, two, one. To the result is added the as many granular-granular (piśuli-piśuli) as are obtained as mutual multiplication of

$$\begin{array}{ccc|ccc|ccc} 2 & - & 3 & 2 & - & 2 & 2 & - & 1 & 2 \\ \partial & & 4 & \partial & & 3 & \partial & & 2 & \partial & 1 \end{array}$$

where number of terms (gaccha) as reduced by three | number of terms (gaccha) as reduced by two, and number of terms (gaccha) as reduced by one, as well as number of terms (gaccha) as complete, as mutually multiplied after being divided respectively by four, three, two, one. To this amount is added the acquisition set (labdha rāśi) of powder (cūrṇi) as multiplied by the mutual multiplication of

$$\begin{array}{cccccc} 2 & - & 4 & 2 & - & 3 & 2 & - & 2 & 2 & - & 1 & 2 & - \\ \partial & & 5 & \partial & & 4 & \partial & & 3 & \partial & & 2 & \partial & 1 \end{array}$$

where number of terms (gaccha) as reduced by respectively four three, two, one and zero and placed separate, and divided respectively by 5, 4, 3, 2, 1. To the above is added the powder-powder (cūrṇi cūrṇi) as multiplied by the factors

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$$\begin{array}{cccccc} 2 & - & 5 & 2 & - & 4 & 2 & - & 3 & 2 & - & 2 & 2 & - & 1 & 2 & - \\ \partial & & 6 & \partial & & 5 & \partial & & 4 & \partial & & 3 & \partial & & 2 & \partial & 1 \end{array}$$

where the number of terms (gaccha) is respectively reduced by 5, 4, 3, 2, 1 and zero, and kept separate each divided by 6, 5, 4, 3, 2, 1 respectively.

In this way, in sequence one should know the second, powder-powder (cūrṇi-cūrṇi) etc. Then starting from two, upto the complete number of terms (gaccha) as increased one and one, from innumerate part of linear finger (sūcyaṅgula) as reduced by unity, dividing by the part reduced by unity and again by unity continuously, we get

ja	1—	2	3	4	madhya	2 - 3	2 - 2	2 - 1	2
	2	1—	1—	1—		∂ 4	∂ 3	∂ 2	∂ 1
16	∂	2	2	2	0 0 0				
		∂	∂	∂					

Here observing the numerator and deminations similar, cancellations is performed, then the last-but-one powder-powder (cūrṇi-cūrṇi) is found to be of number of terms (gaccha) measure as

$$\begin{array}{r} \text{ja } 1— \\ 2 \\ 16 \partial \end{array} \quad \begin{array}{r} 2 \\ \partial \end{array}$$

Again, powder-powder (cūrṇi-cūrṇi) one, thus established below, one adding all, the last-station (anta-sthāna) is obtained. Again thus, having finished with the stations (sthānas) of infinitesimal part-increase (ananta-bhāga-vṛddhi), there happens to be greater than minimal-knowledge (jaghanya-jñāna) whose

symbol is ja . Here symbol as vertical stroke, | above ja has been placed for showing excess. This is divided by the innumerate which amounts to innumerate universe (asaṁkhyāta loka) and on adding one part there of to the original, we get the first-station (prathama-sthāna) of the innumerate part increase (asaṁkhyāta bhāga-vṛddhi) as

$$\begin{array}{r} | \quad 1— \\ \text{ja} \equiv \partial \\ \equiv \partial \end{array}$$

Again, the innumerate part of linear finger (sūcyaṅgula) happens to be in between the stations (sthānas) of the infinitesimal-part-increase (ananta-bhāga-vṛddhi). and the second station (dvitīya sthāna) of innumerate part increase is as

$$\begin{array}{r} | \quad 1— \quad 1— \\ \text{ja} \equiv \partial \quad \equiv \partial \\ \equiv \partial \quad \equiv \partial \end{array}$$

In this way the stations (sthānas) of innumerate part-increase (asaṁkhyātā bhāga-vṛddhi) happen to be as many times as innumerate part of linear-finger (sūcyaṅgula) point-set (pradeśa-rāśi). Hence this is greater than the minimal and expressed as,

$$\begin{array}{r} | \\ \text{ja.} \end{array}$$

This is now divided by maximal numerate and then one part there of is added to the original, we get the first-station (prathama-sthāna) of numerate-increase (saṁkhyāta-vṛddhi), as

$$\begin{array}{r} | \quad 1— \\ \text{ja } 15 \\ 15 \quad | \end{array}$$

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In a similar way, the measure of split (kaṇḍaka) is innumerate part of linear-finger (sūcyaṅgula), hence the measure of split (kaṇḍaka) are the sets of stations (sthānas) associated with infinitesimal part (ananta-bhāga) and innumerate part (asaṁkhyāta bhāga) increase.

Again, at the end of the stations (sthānas) associated with infinitesimal-part-increase (ananta-bhāga-vṛddhi), amounting to a split (kāṇḍaka), there happen to be stations (sthānas), one by one, associated with numerate part increase. Similarly, in this sequence, at the lapse of a split (kāṇḍaka) measure, there happen to be stations (sthānas), associated with numerate times increase (saṁkhyāta-guṇa-vṛddhi), amounting to a split (kāṇḍaka). And at the lapse of a split (kāṇḍaka) measure of stations (sthānas) associated with infinitesimal part increase (ananta-bhāga-vṛddhi), there happens to be a stations (sthānas), one by one, associated with numerate times increase.

Again, similarly, at the end of split (kāṇḍaka) measure of numerate times increase yoked stations (sthānas) in this sequences, and at the lapse of stations (sthānas) associated with infinitesimal-part (ananta-bhāga) increase, there happen to be stations (sthānas) associated with innumerate times (asaṁkhyāta guṇa) increase one by one.

Again, similarly at the lapse of split (kāṇḍaka) measure of stations (sthānas) associated with innumerate times increase, and at the lapse of split (kāṇḍaka) measure of stations (sthānas) associated with infinitesimal-part (ananta-bhāga) increase, there happens to be station (sthāna) associated with infinite-times (ananta-guṇa) increase.

Again, mixing all those measure of sets of increases, we get through numerical symbolism (aṅka saṁdr̥ṣṭi) and gauge-symbolism (ārtha saṁdr̥ṣṭi) the following :

TRANSCRIPTION

aṅka saṁdr̥ṣṭi (numerical symbolism)			ārtha saṁdr̥ṣṭi (gauge symbolism)		
8	1		16	1	
7	2		≡ ∂	2	
6	2 3			∂	
5	2 3 3		15	1–	
4	2 3 3 3			2 2	
u	2 3 3 3 3			∂ ∂	
joḍair̥	3 3 3 3 3		15	1– 1–	
				2 2 2	
				∂ ∂ ∂	
			≡ ∂	1– 1– 1–	
				2 2 2 2	
				∂ ∂ ∂ ∂	
			16	1– 1– 1– 1–	
				2 2 2 2 2	
				∂ ∂ ∂ ∂ ∂	
			joḍa	1– 1– 1– 1– 1–	
				2 2 2 2 2	
				∂ ∂ ∂ ∂ ∂	

$$S = \frac{a(r^n - 1)}{r - 1}$$

$$S = \left[\frac{2(3^n - 1)}{3 - 1} \right] + 1 = 3^5$$

$$\& S = \left[\frac{2}{\partial} \left[\left\{ \left(\frac{2}{\partial} + 1 \right)^5 - 1 \right\} \div \left(\frac{2}{\partial} + 1 - 1 \right) \right] \right] + 1 = \left(\frac{2}{\partial} + 1 \right)^5$$

ASG p. 131 Here, corresponding o the numerical symbolism, whatever is the infinite times increae, it is once, and symbolized by the digiti of eight (aṣṭāṅka).

Similarly the symbol as the digit of seven (saptāṅka) denoting innumerate times increase happens to occur as many times as is the innumerate-part of linear-finger (sūcyaṅgula) point-set (pradeśa-rāṣi). Hence, here the symbol for the innumerate part of the linear-finger (sūcyaṅgula) is the digit of two. This is called a split (kāṇḍaka). When both are mixed, we get three as the measure of the split (kāṇḍaka) as increased by one.

Again the symbol as digit of six (ṣaṣṭhāṅka), denoting numerate times increase, it becomes split (kāṇḍaka) as multiplied by split (kāṇḍaka) as increased by one, as $2 \mid 3$. Here, when this and the earlier increase are added, we get the product of split (kāṇḍaka) as increased by one and the split (kāṇḍaka) as increases by one.

Similar is to be known upto the digit of u (urvaṅka). Hence adding all the increases or increments, the measure is obtained by mutually multiplying the split (kāṇḍaka) as increased by one, placed as five places. Similar is to be known about the gauge-symbolism (artha saṁdrṣṭi).

Here in the gauge-symbolism (artha-saṁdrṣṭi), the symbol for the infinite etc., is to be known as that of bios-set (jīva-rāṣi), etc. The symbol for the split set (kāṇḍaka-rāṣi) measuring innumerate part of

linear-finger (sūcyaṅgula) is $\frac{1}{2}$, the symbol for the excess by one is $\frac{1}{2}$. Again wherever the excess minimal-knowledge (sādhika jaghanya-jñāna) happens to be twice as much, the following matrix (yantra) depicts that :

jaghanya (minimal)	 ja	 ja	 ja	 ja
prakṣepaka (projector)	 ja 15 15	 ja 15 3 15 4	 ja 4 1 15 5 6	 ja 15 7 15 10
prakṣepaka prakṣepaka (projector- projector)	1— ja 15 3 15 3 15 15 4 24 1	1— ja 15 41 15 41 15 15 56 2 56 1	1— ja 15 7 15 7 15 15 10 3 10 1	
		piśuli (infinitesimal- process)	2— 1— ja 15 7 15 7 15 7 15 15 15 10 3 10 2 10 1	

ASG p. 132 Here, corresponding to the stations (sthānas) associated with numerate part increase, the excess minimal (sādhika jaghanya) is divided once, twice and thrice by maximal numerate, then the projector (prakṣepaka), projector-projector (prakṣepaka prakṣepaka) and granular (piśuli) are obtained as follows :

prakṣepaka
(projector)

|
ja
15

prakṣepaka prakṣepaka
(projector-projector)

|
ja
15 15

piśuli
(infinitesimal process)

|
ja
15 | 15 | 15

Hence at the lapse of stations (sthānas) amounting to maximal numerate of numerate part increase. There the measure of number of terms (gaccha) is maximal numerate as 15. Hence cancelling

$$\begin{array}{r} | \\ \text{ja } 15 \\ 15 \end{array}$$

projector (prakṣepaka), it becomes excess-minimal (sādhika jaghanya), which when added to excess-minimal (sādhika-jaghanya), we get twice of the excess-minimal (sādhika jaghanya).

Again, at the lapse of stations (sthānas) amounting to three fourth part of maximal numerate of that very, there is the number of terms (gaccha) amounting to maximal numerate whose three fourth part is 15 | 3. So this is the projector (prakṣepaka).

$$\begin{array}{r} 4 \\ \text{ja } 15 | 3 \\ 15 \quad | 4 \end{array}$$

Now according to the summation formula (saṅkalana sūtra mutually multiplying the number of terms (gaccha) as reduced by unity, and total number of terms (gaccha) as divided by two, one, we get

$$\begin{array}{r} 1- \\ 15 | 3 | 15 | 3 \\ 4 | 2 \quad 4 | 1 \end{array}$$

This gives the number of projector-projector (prakṣepaka-prakṣepaka) each of which is given by

$$\begin{array}{r} | 1- \\ \text{ja } 15 | 3 | 15 | 3 \\ 15 \quad 15 \quad 4 | 2 \quad 4 | 1 \end{array}$$

When there are added to the excess-minimal (sādhika jaghanya), we get twice excess-minimal (sādhika-jaghanya). How ?

The negative of the projector-projector (prakṣepaka-prakṣepaka) is

$$\begin{array}{r} | \\ \text{ja } 1 | 3 \\ 15 | \quad 32 \end{array}$$

This is kept separate, on cancellation of the remainders we get

$$\begin{array}{r} | \\ \text{ja } 9 \\ 32 \end{array}$$

Here one form as

$$\begin{array}{r} | \\ \text{ja } 1 \\ 32 \end{array}$$

is kept separate, the remaining as

$$\begin{array}{r} | \\ \text{ja } 8 \\ 32 \end{array}$$

which on cancellation we get

$$\begin{array}{c} | \\ \text{ja } 1 \\ 4 \end{array}$$

When this mixed with the cancelled and reduced increase in projector (prakṣepaka) as

$$\begin{array}{c} | \\ \text{ja } 3 \\ 4 \end{array} \quad \text{on cancellation}$$

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we get excess-minimal (sādhika-jaghanya). Now the positive (dhana) of one form is

$$\begin{array}{c} | \\ \text{ja } 1 \\ 32 \end{array}$$

From it, in order to subtract the negative

$$\begin{array}{c} | \\ \text{ja } 1 \quad 3 \\ 15 \quad 32 \end{array}$$

making slightly less, and adding in the minimal (jaghanya), whatever excess-minimal (sādhika jaghanya) becomes, when it is added to the original excess minimal (sādhika jaghanya) we get twice the excess-minimal (sādhika-jaghanya).

Again at the lapse of forty-one fifty-sixth part of maximal numerate of that very, there happens to be excess-minimal (sādhika-jaghanya).

There that amount of number of terms (gaccha) is

$$\begin{array}{c} 15 \mid 41 \\ 56 \end{array}$$

There the projector (prakṣepaka) amounting to number of terms (gaccha) are

$$\begin{array}{c} | \\ \text{ja } 15 \mid 41 \\ 15 \quad 56 \end{array}$$

On mutually multiplying the number of terms (gaccha) as reduced by unity, and total number of terms (gaccha), as divided by two, one, we get

$$\begin{array}{c} 1 \text{---} \\ 15 \mid 41 \mid 15 \mid 41 \\ 56 \mid 2 \mid 56 \mid 1 \end{array}$$

As many as these projector-projector (prakṣepaka-prakṣepaka) are given by

$$\begin{array}{c} | \quad 1 \text{---} \\ \text{ja } 15 \mid 41 \mid 15 \mid 41 \\ 15 \mid 15 \mid 56 \mid 2 \mid 56 \mid 1 \end{array}$$

When the above is added to original excess-minimal (sādhika-jaghanya), we get twice the excess-minimal (sādhika jaghnaya). How? Here the negative corresponding to projector-projector (prakṣepaka-prakṣepaka) set (rāśi) is

$$\begin{array}{c} \text{ja } 1 \mid 1 \mid 41 \\ 15 \mid 2 \mid 56 \end{array}$$

The reduced remainder on cancellation is

$$\begin{array}{r} | \\ \text{ja } 1681 \\ 112 \mid 56 \end{array}$$

The positive in unit form is

$$\begin{array}{r} | \\ \text{ja } 1 \\ 112 \mid 56 \end{array}$$

The remainder is given by

$$\begin{array}{r} | \\ \text{ja } 1680 \\ 112 \mid 56 \end{array}$$

which on cancellation gives

$$\begin{array}{r} | \\ \text{ja } 15 \\ 56 \end{array}$$

This is added to the projector prakṣepaka set

$$\begin{array}{r} | \\ \text{ja } 41 \\ 56 \end{array}$$

getting excess-minimal (sādhika jaghnaya). Again the positive (dhana) kept separate is

$$\begin{array}{r} | \\ \text{ja } 1 \\ 112 \mid 56 \end{array}$$

From it for subtracting the separately kept negative, it is made slightly less and when it is added to excess-minimal (sādhika jaghnaya) we get the excess-minimal (sādhika jaghnaya) which when added to original excess-minimal (sādhika jaghnaya), we get twice the excess minimal (sādhika jaghnaya).

Again at the lapse of seven tenth part of maximal numerate of that very, and adding there the projector-projector piśuli (prakṣepaka-prakṣepaka-piśuli), we get twice the excess-minimal (sādhika jaghnaya). There that very measure amount of number of terms (gaccha) is

$$\begin{array}{r} 15 \mid 7 \\ 10 \end{array}$$

and projector (prakṣepaka) amounting to as many of number of terms is

$$\begin{array}{r} | \\ \text{ja } 15 \mid 7 \\ 15 \mid 10 \end{array}$$

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Again dividing the product of number of terms (gaccha) as reduced by unity and total number of terms by two and one, we get that as amount of projector-projector (prakṣepaka-prakṣepaka) as

$$\begin{array}{r} | \quad 1 \text{---} \\ \text{ja} \quad 15 \cdot 7 \quad 15 \quad 7 \\ 15 \mid 15 \quad 10 \mid 2 \mid 10 \mid 1 \end{array}$$

Again when the product of number of terms (gaccha) as reduced by two, number of terms (gaccha) as reduced by one and total number of terms (gaccha) is divided by three, two and one, we get the very measure of granular (piśuli) as

$$\begin{array}{r} | \quad 2 \text{---} \quad 1 \text{---} \\ \text{ja} \quad 15 \mid 7 \mid 15 \mid \quad 7 \mid 15 \mid 7 \\ 15 \mid 15 \mid 15 \mid 10 \mid 3 \mid 10 \mid 2 \mid 10 \mid 1 \end{array}$$

Adding all these and then adding to it excess minimal (sādhika jaghanya) we get twice the excess-minimal (sādhika jaghanya), How ? This is explained below : The first negative of the granular (piśuli) is

$$\begin{array}{r} | \quad \quad \quad 1 \text{---} \\ \text{ja} \quad \quad 2 \mid 15 \mid 7 \mid 15 \mid 7 \\ 15 \mid 15 \mid 15 \mid 6 \mid 10 \mid 10 \mid 10 \end{array}$$

are established separate, the remaining is cancelled and becomes as

$$\begin{array}{r} | \quad 1 \text{---} \\ \text{ja} \quad 15 \mid 7 \mid 49 \\ 15 \quad 10 \quad 600 \end{array}$$

Here the negative is given by

$$\begin{array}{r} | \\ \text{ja} \quad 1 \quad 49 \\ 15 \quad 600 \end{array}$$

which is kept separate and on cancelling the remainder, we get

$$\begin{array}{r} | \\ \text{ja} \quad 343 \\ 6000 \end{array}$$

In this the thirteen form as

$$\begin{array}{r} | \\ \text{ja} \quad 13 \\ 6000 \end{array}$$

are kept separate and the remainder as

$$\begin{array}{r} | \\ \text{ja} \quad 330 \\ 6000 \end{array}$$

which on cancellation gives

$$\begin{array}{r} | \\ \text{ja} \quad 11 \\ 20 \mid 10 \end{array}$$

which is established as a place. Again the positive-set (dhana rāṣi) kept separate as

|
ja 13
6000

from which for subtracting first second negative, it is made slightly less and kept separate. Again the projector-projector (prakṣepaka-prakṣepaka) set (rāṣi) as

| 1—c—
ja 15 | 7 | 7
15 | 2 | 10 | 10

in which the negative is

|
ja 1 | 7
15 20

is kept separate, the remainder is

|
ja 15 | 7 | 7
15 200

which on cancellation gives

|
ja 49
200

In this the granular positive (piṣuli-dhana) mentioned earlier is

|
ja 11
200

When

60
200

is reduced on cancellation we get

3
10

In this the projector-positive (prakṣepaka kā dhana) as

|
ja • 7
10

is added getting excess minimal (sādhika jaghanya).

1

6000

Now if there happen to be six-stationed cascade (ṣaṣṭhāna) once corresponding to the stations (sthānas) amounting to cube of square of innumerate part of linear finger (sūcyaṅgula) as increased by one, then how many times it will happen corresponding to all stations (sthānas) of innumerate-universe (asamkhyāta loka) of non-alphabetic (anakṣara) scriptural-knowledge (śruta-jñāna). Here by the rule of three sets (trairāśika).

$$\text{pha} \quad 1 \quad i \quad \equiv \partial$$
 $\equiv \partial$
$$\begin{array}{ccccc} 1- & 1- & 1- & 1- & 1- \\ 2 | & 2 | & 2 | & 2 | & 2 | \\ \partial & \partial & \partial & \partial & \partial \end{array}$$

Again the alphabetical scriptural knowledge is

$$\begin{array}{r} \text{ke} \\ 1\text{c} \\ 18 = \end{array}$$

ekatthī, ie., $[2]^{(2)^6}$, ie., 18 =, as reduced by unity.

Again increasing alphabets (akṣara) one by one, we get the divisions of alphabet-aggregate (akṣara-samāsa), at the completion of 16 3 48 30 78 88 alphabets, there happens to be syllable (pada), whose symbol is pa, above which, the types of syllable-aggregate (pada-samāsa) having increase of alphabets one by one, are as

[illegible]

Here the syllable (pada), and the syllable (pada) as increased by one, two alphabets, the intermediate divisions, twice the syllable (pada), and the twice the syllable (pada) as increased by one, alphabets then intermediate types, then thrice the syllable (pada), and the thrice syllable (pada) as increased by one syllable, then intermediate types, then the symbol of the numerate thousand syllable (pada) as reduced by one. Here the symbol of 16 = denote the measure of alphabets in form of one six digit etc. of syllable (pada).

Again numerate thousand of syllable (pada) is the saṁghāta scuptural-knowledge (śrula jñānā) as
16 = 1000 ॐ

[Note the left hand style of writing numerate thousand]

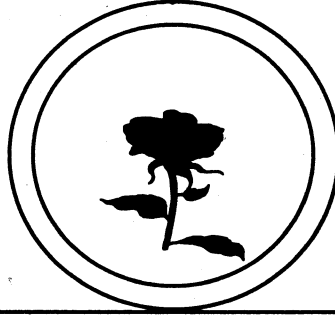
Similarly other divisions are to be known.

Again among the types of scriptural-knowledge (śruta jñāna) in form of holy text (śāstra), applying the formula, "kaṭapaya purasthavarṇaiḥ" etc., the digit are shown through alphabetic denomination (akṣara saṁjñā), the measure has been stated which may be known from the commentary. Again all types of knowledge have the following structure. The matrix structrue (yantra racanā) is as follows :

sāmāyika caturviṁśatistava
vandanā pratikramaṇā
vainayika kṛti

kṛtikarma dasavaikālīka uttarādhyayana
kolpa vyavahāra

kalpākalpa mahākalpa puṇḍarīka
mahāpuṇḍarīka niṣiddhikā
80108175
akṣara (Letters)



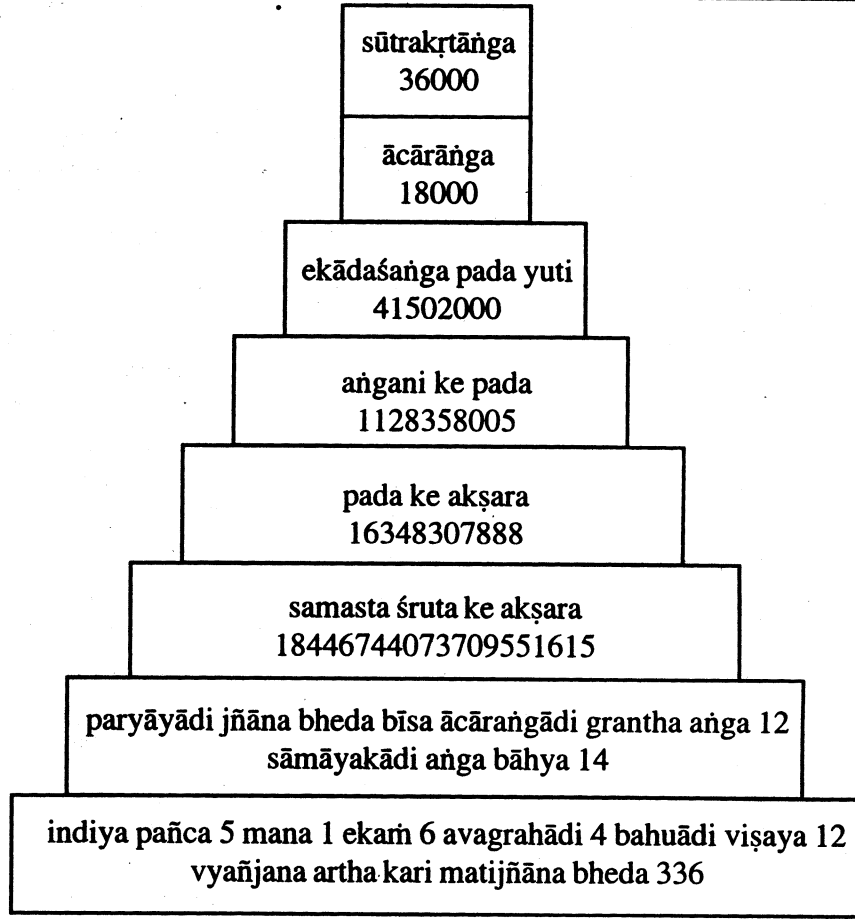
	kevala (omni)	
ṛju (recti)		
deśa (partial)	parama (supreme)	sarva (total)
125000000	lokavindu sāra	
	kriyā viśāla	90000000
130000000	prāṇāvāda	
	kalyāṇavāda	260000000
11000000	vidyānuvāda	
	pratyākhyāna	8400000
18000000	karmapravāda	

continued

	ātma pravāda	260000000
10000006	satya pravāda	
	jñāna pravāda	9999999
6000000	astināsti pravāda	
	vīrya pravāda	7000000
9600000	agrāyaṇīya	
	utpāda	10000000

parikarma 18105000	pūrvagata 955000005	cūlikā 104946000
candra prajñapti 3605000	prathamānuyoga 5000 sūtra 8800000	jalagatā 20989200
sūryya prajñapti 503000	drṣṭivāda 10868560005	sthalagatā 20989200
jambūdvīpa prajñapati 325000	vikpāka sūtra 18400000	māyāgati 20989200
dvīpasāgara prajñapti 5236000	praśna vyākaraṇa 9613000	ākāśagatā 20989200
vyākhyā prajñapti 8436000	anuttarapapādika daśāṅga 9244000	aūpagatā 20989200
	antakṛta daśāṅga 2328000	
	upasakādhyaṇa 1170000	
	jñātra kathā 556000	
	vyakhyā prajñapti 228000	
	samavāyāṅga 164000	
	sthānāṅga 42000	

continued



Correction : In the above karmma is karma, pūrvvagati as pūruagata.

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EXPLANATION : Here in the lower portion, there are divisions of perceptive (mati) knowledge. Above them are the divisions of scriptural (śruta) knowledge. Above them the measure of scriptural (śruta) alphabets. Above it is the measure of alphabets of syllables (padas). Above it is the measure of syllables (padas) of all aṅgas. Above is the measure of syllables (padas) of eleven aṅgas. Above it in the middle is the measure of the syllables of ācāra, etc., aṅgas. Above it is the box in which the measure of syllables (padas) of prathamānuyaga and formulae (sūtras). Above it is the measure of syllables (padas) of special presentation (cūlikā) of pūrvagata. From above, on one side is the measure of syllables of parikarm and is five divisions and on the other side there is the measure of the syllables (padas) of five divisions of special presentation (cūlikā) and special presentation (cūlikā). Above it is the measure of syllables of fourteen pūrvas and is the middle are the names of fourteen pūrvas, known as utpāda, etc. Above it are the names of three divisions of clairvoyance (avadhi). Above them are the names of division of telepathy (manaḥ paryaya). Above that in the name of omniscience (kevala jñāna). And in the flag there are names of sāmāyika, etc., prakīrṇakas. There is also written the measure of their all alphabets. That is to be known.

Again in the description of clairvoyance (avadhi jñāna) the fluent (dravya) subjected (viṣayabhūta) to minimal partial clairvoyance (deśāvadhi) is physically accumulated (audārika sañcaya) curved through medium volitions (madhyama yogas) as divided by universe (loka) point-set (pradeśa-rāśi) as

1—
sa ० 12 – 16 kha

≡

Here the instant-effective-bond (samaya prabaddha) of the physical (audarika) as multiplied by slightly less one and half geometric-regression (dvayardha guṇahāni) is

$$sa \partial 12 -$$

This is multiplied by the amount of natural-accumulation (viśvasopacaya) corresponding to each one of the set of ultimate particles (paramāṇus) given by infinite, kha, times the set of all souls, 16, and we get

$$sa \partial 12 - 16 kha$$

Into this set the original physical (audārīka)'s accumulated-fluent (sañcaya dravya) which is

$$sa \partial 12 - \text{ is mixed and shown by writing one plus over the next factor } 16 kha .$$

And below it, the symbol for division by universe (loka) is to be known as \equiv .

Again, the subjected region (viśayabhūta kṣetra) of minimal partial-clairvoyance (deśāvadhi) amounts to minimal immersion (avagāhānā) as

$$6 \ 8 \ 22$$

$$\partial$$

$$1-$$

$$pa \mid 19 \mid 9 \mid 9 \mid 8 \mid 22 \mid \partial \mid 9$$

$$\partial$$

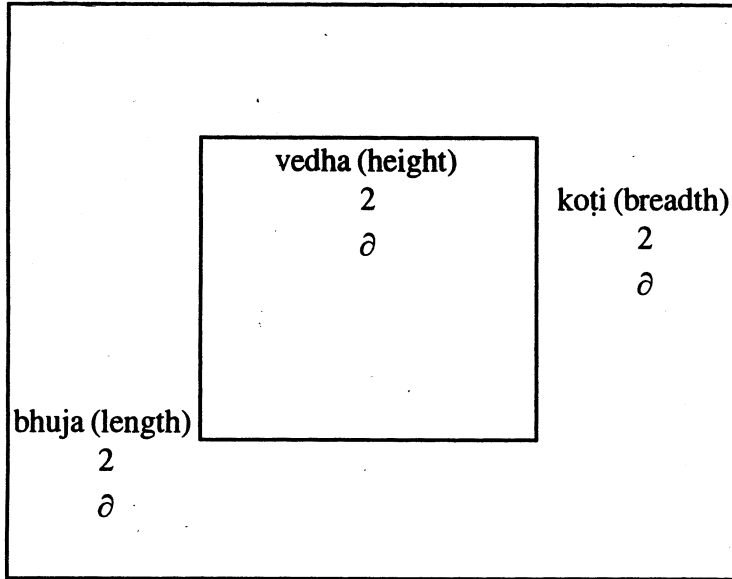
$$\partial$$

$$\partial$$

Here the symbolism is the same as was that corresponding to Bios-Aggregate (jīvasamāsa) chapter, where symbolism is of minimal-immersion (jaghanya-avagāhānā) of the five vegetable attainment non-developable bios-set (sūkṣma nigoda labdhi aparyāpta jīva-rāśi).

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Again in this minimal region, the measure of length, breadth and height (bhujā, koṭi, vedha), according to the rule of area-division (kṣetra khaṇḍana), is innumerate part of linear-finer (sūcyaṅgula) point-set (pradeśa-rāśi), as



On mutual multiplication, we get the innumerate part of finger-cubed (ghanāṅgula) point-set (pradeśa-rāśi), as 6 region.

$$\partial$$

Again whatever region is bounded by the subjected-fluent (visaya-bhūta dravya) so that region is innumerate times less than the subjected-fluent (visaya bhūta dravya) of minimal partial clairvoyance knowledge, as

	vedha (height)	koṭī (breadth)
	2	2
	∂ ∂	∂ ∂
bhuja (length)		
2		
∂ ∂		

Again the subjected-time (viṣaya-bhūta-kāla) of the minimal partial-clairvoyance (deśāvadhi) is innumerate part of trail-cubed (ghanāvalī) as 8
∂

Again the subjected-phase (viṣaya-bhūta-bhāva) is innumerate part of that of time (kāla) as 8
∂ ∂

Again for finding out the subjected (viṣaya bhūta) fluent-measure (dravya-pramāṇa) of divisions of second, etc. clairvoyance, there is pole-divisor (dhruvahāra) whose symbol is the digit of 9 . And whatever is the multiplier of karma-finishing-variform (kārmāṇa vargaṇā) obtained on "mutual multiplication of the pole-divisions (dhruva-bhāgaḥāras) amounting to the divisions of partial-clairvoyance (deśāvadhi) as reduced by two, and so that is infinite times the pole-divisor (dhruva hāra) as 9 kha.

Infinite times the preceding set is the measure of karma-finishing-variform (kārmāṇa vargaṇā) as 9 kha kh. When the karma-finishing-variform (kārmāṇa-vargaṇā) is multiplied by the multiplier of the karma-finishing-variform (kārmāṇa-vargaṇā), we get the subjected-instant-effective-bond (viṣaya-bhūta-samaya-prabaddha) of clairvoyance (avadhi), as 9 kha kha | 9 kha.

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Again the minimal of mind-variform (manovargaṇā) symbolized as ja, is divided by infinite we get

ja
kha

The maximal is in excess of the infinite part of minimal, as

1—
ja kha
kha

from which when minimal (jaghanya) is subtracted and one is added we get

1—
ja [Note that in ASG ther is 1—
kha ja kha]
kha kha

Again the explicable (vakṣyamāṇa) divisions relative to fluent (dravya) of the partial-clairvoyance (deśāvali) are

1—		2—c—
≡ 6 2	subtracting two part this we get	≡ 6 2
pa ∂		pa ∂
∂		∂

Hence so many pole-divisors (dhruva-hāra) are placed and 9 given to each and mutually multiplied getting the multiplier of the karma-finishing-variform (kārmāṇa-vargaṇā). According to numerical-symbolism (aṅka-saṁdṛṣṭi), just as at thirteen places, nine are placed and mutually multiplied giving

$$\begin{array}{cccccccccccccc} 9 & 9 & 9 & 9 & 9 & 9 & 9 & 9 & 9 & 9 & 9 & 9 & 9 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \end{array}$$

By this multiplier, the variform (vargaṇā) is multiplied, getting the subjected-fluent (viṣaya-bhūta-dravya) of the minimal-partial-clairvoyance (jaghanya-deśāvadhi), as the fluent-structure (dravya-racanā) of the partial-clairvoyance is as

$$\begin{array}{l} \text{va} \\ 9 \\ \text{va} \\ \text{va} \mid 9 \\ \text{va} \ 9 \mid 9 \\ \text{va} \ 9 \mid 9 \mid 9 \\ \text{va} \ 9 \mid 9 \mid 9 \mid 9 \\ 0 \\ 2 \text{ —————} \\ 1 \text{ —————} \\ \text{va} \mid 9 \equiv -6 \ 2 \\ \text{pa} \ \partial \\ \partial \end{array}$$

Here the subjected-fluent-variform (viṣaya bhūta dravya vargaṇā) of the maximal partial-vclairvoyance (deśāvadhi) is divided by pole-divisor (dhruvahāra), getting $\frac{\text{va}}{9}$

Hence the fluent-variform (dravya-vargaṇā) of the earlier division is $\frac{\text{va}}{9}$, hence below and further below, the variform (vargaṇā) measure of divisions, is multiplied once, twice, thrice, four-times etc., by the pole-divisor (dhruvahāra). These are the middle-divisions (madhya bheda) which happen to be there. The variform (vargaṇā) as multiplied by pole-divisor (dhruvahāra) as many times as are the divisions of the partial-clairvoyance (deśāvadhi) as reduced by two, gives the subjected-fluent (viṣayabhūta-dravya) of minimal partial-clairvoyance (deśāvadhi).

ASG p. 139 Again, when the subjected-minimal-quarter (viṣayabhūta-jaghanya-kṣetra of partial-clairvoyance (deśāvadhi) as finger-cubed (ghanāṅgula) is divided by innumerate part of pit (palya) we get $\frac{6}{p}$

$\frac{6}{p}$
 $\frac{\partial}{\partial}$
which when subtracted from the maximal which is of universe measure, ie, $\frac{6}{p}$, then we get $\frac{6}{p} - \frac{6}{p}$

$\frac{6}{p}$
 $\frac{\partial}{\partial}$
Here the symbol for subtraction is the horizontal bar as '—'.

Now when this amount is multiplied by innumerate part of linear-finger (sūcyāṅgula), getting

$$\begin{array}{l} 1 \text{ —} \\ \equiv -6 \mid 2 \\ \text{pa} \ \partial \\ \partial \end{array}$$

which when increased by unity gives the measure of the divisions of partial-clairvoyance (deśāvadhi) relative to fluent (dravya), as

$$\begin{array}{r} 1- \\ \equiv - 6 \mid 2 \\ \text{pa } \partial \\ \partial \end{array}$$

In ASG 1- is extended upto third column only.

Here the quarter (kṣetra) of minimal partial-clairvoyance (deśāvadhi) is as

$$\begin{array}{r} 6 \mid 8 \mid 22 \\ \partial \\ \text{pa} \mid 19 \mid 8 \mid 9 \mid 8 \mid 22 \mid 7 \mid 9 \\ \partial \quad \quad \partial \quad \quad \partial \end{array}$$

which on cancellation gives the finger-cubed (ghanāṅgula) as divided by innumerate part of pit (palya), as

$$\begin{array}{r} 6 \\ \text{pa} \\ \partial \end{array}$$

Again the minimal-immersion (jaghanya-avagāhanā) of the fire-bodied (agni-kāyika) mentioned in the chapter on bios-aggregate (jīva-samāsa), as

$$\begin{array}{r} 6 \mid 8 \mid 22 \\ \partial \\ \text{pa} \mid 19 \mid 8 \mid 7 \mid 8 \mid 22 \mid 7 \mid 9 \\ \partial \quad \quad \partial \quad \quad \partial \end{array}$$

the maximal is given by

$$\begin{array}{r} 6 \mid 8 \mid 8 \\ \partial \\ \text{pa} \mid 6 \mid 8 \mid 8 \mid 7 \mid 9 \\ \partial \quad \quad \partial \end{array}$$

when the minimal is subtracted from the maximal and the result reduced on cancellation gives

$$\begin{array}{r} 1- \\ 6 \mid \partial \\ \text{pa} \\ \partial \end{array}$$

when one is added into the, we get the immersion-abstraction (avagāhānā) of all the fire-bodied (agni kāyika) bios, we get

$$\begin{array}{r} 1- \\ 6 \mid \partial \\ \text{pa} \\ \partial \end{array}$$

This set is multiplied now by the fire-bodied set which happens to be $\equiv \partial$ getting the amount

$$\begin{array}{c} 1 \text{ —} \\ 1 \text{ —} \\ \equiv \partial \ 6 \ \partial \\ \text{pa} \\ \partial \end{array}$$

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which is the measure of divisions of all supreme-clairvoyance (paramāvadhi). The multiplier which is two more than the preceding set is, placed distributed and mutually multiplied getting the karma-finishing-variform (kārmāṇa vargaṇā).

Again the structure of nineteen sections or splits (kāṇḍakas) corresponding to partial-clairvoyance (deśāvadhi) is to be known as follows :

va 9 va 9 va 9 9 0 0 kārmāṇa samaya prabaddha 9 kārmāṇa samaya prabaddha	\equiv 0 0 0 dvī sa ∂ 6	pa - 1 0 0 0 varṣa ∂ 6 (years)	$\equiv \partial$ 0 0 0 0
0 manovargaṇā 9 manovargaṇā	0 dvī sa ∂ 5	0 varṣa ∂ 5 (years)	0
0 bhāṣā vargaṇā 9 bhāṣā vargaṇā	0 dvī sa ∂ 4	0 varṣa ∂ 4 (years)	0
0 tejvargaṇā 9 tejovargaṇā	0 dvī sa ∂ 3	0 varṣa ∂ 3 (years)	0

continued

0 karmāṇa śarīra 9 karmāṇa śarīra	0 dvī sa 2	0 varṣa 2 (years)	0 0
0 taijasa śarīra 9 taijasa śarīra	0 dvī sa 1	0 varṣa 1 (years)	0 0
0 0	0 dvīp sa 7	0 varṣa 7 (years)	0 0
0 0	0 rucaka dvīpa	0 varṣa prthaktva (year separability)	0 0
0 0	0 manuṣya kṣetra	0 varṣa 1 (years)	0 0
0 0	0 jambū dvīpa	0 māsa 1 (month)	0 0
0 0	0 bharata kṣetra	0 dina 15 (days)	0 0
0 0	0 jojana 25	0 dina 1 (days)	0 0
0 0	0 jojana 1	0 bhinna muhūrta (fractional muhūrta)	0 0

continued

0 0	0 kośa 1	0 2 १ -	0 0
0 0	0 hasta 1	0 pr 8	0 0
0 0	0 0 pr 6	0 0 8	0 0
0 0	0 0 6	0 0 0	0 0
0 0	0 0	0 0	0 0
0 0 0 0 1— sa ∂ 12 - 16 kha ≡ 9 1— sa ∂ 12 - 16 kha ≡	6 १ 0 0 0 6 ∂ 6 ∂	8 १ 0 0 0 8 ∂ 8 ∂	0 0 8 8 8 8 ∂ ∂ ∂ ∂ 8 8 8 ∂ ∂ ∂ ∂ 8 8 ∂ ∂ ∂ 8 ∂ ∂

ASG p. 140 (ka)

Here about the first division of the first split (kāṇḍaka), the earlier mentioned minimal fluent (dravya) is as

$$1—$$

$$sa \partial 12 - 16 kha$$

This is divided by the pole-divisor (dhruva hāra), getting the second division as

$$1—$$

$$sa \partial 12 - 16 kha$$

$$\equiv 9$$

From its third division, upto innumerate stations (sthānas), in the same sequence, division by pole-divisor (dhruva hāra) is made, and their symbolism has been shown through small-circle (vindī).

Again the fluent (dravya) of first division of the subjected phosphorescent body (taijasa śārīra), etc., of first division corresponding to the fourteenth, fifteenth, sixteenth, seventeenth, eighteenth split, is divided by pole-divisor (dhruva hāra) we get the fluent (dravya) of second division.

In the very sequence, on division by the pole-divisor or constant-divisor (dhruva hāra), the symbol of third stations (sthāna) is small circle (vindī). The fluent (dravya) of the first division of the nineteenth split (kāṇḍaka) is karma-finishing instant-effective bond (kārmāṇa-samaya-prabaddha) which is divided by the pole-divisor (dhruva hāra), getting the fluent (dravya) of the second division, and for the purpose of accepting middle divisions, small circles (vindī) is written above. The variform (vargaṇā) is multiplied two times, one time and variform vargaṇā amount; and the fluent (dravya) of the last division amounts to variform (vargaṇā) as divided by pole-divisor (dhruva hāra).

Again, relative to the fluent (dravya) of the first split (kāṇḍaka), the subjected-quarter (viṣayabhūta-kṣetra) of the first division is innumerate part of finger-cubed (ghanāṅgula), is 6

∂

the second etc., divisions is also the same. And for filling up the gap of the middle-divisions small circle (virdi) is placed.

The quarter (kṣetra) of the last division is innumerate part of the finger-cubed (ghanāṅgula) as 6

∂

Again corresponding to second, etc., splits (kāṇḍakas), for the middle division gap, symbol is small circle. The symbol for finger cubed (ghanāṅgula) is 6 . The symbol of finger-cubed (prthaktva-ghanāṅgula) is pr 6

Again the quarter (kṣetra) of the first division of fourteenth etc., splits (kāṇḍakas), is respectively the measure of island-sea (dvipa-samudra) as multiplied by innumerate, once, twice, thrice, four times, five times, six times. The quarter (kṣetra) of the last division of last split (kāṇḍaka) is to be known as of universe (loka) = , measure. Further the subjected-time (viṣayabhūta kāla) of the first division of the first split (kāṇḍaka) is innumerate part of trail-cubed (ghanāvalī) instant set (samaya rāśi), as 8

∂

Relative to fluent (dravya), similarly corresponding to the second division etc.,

Similarly the symbol of small circle (vindi) is for the middle divisions.

Corresponding to the last division, the period (kāla) is numerate part of the trail-cubed (ghanāvalī) as 8

३

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Again, above, the symbol for middle divisor-small circle (vindi). The trail-cubed (apanāvalī) is denoted by 8 ,

symbol for separation-trail-cubed (prthaktva-ghanāvalī) is pr 8 symbol for slightlyless intermuhūrta (antar-muhūrta) is 2 ३ – . Similarly other symbols may be known. Further the period (kāla) of first division of splits (kāṇḍakas) as fourteenth, etc., the measure is to known as the year (varṣa) as multiplied respectively by innumerate once, twice, thrice, four times, five times and six times. The period of the last division of the last split, is to be known as a pit (palya) as reduced by an instant, or pa – 1.

Again the phase (bhāva) of the first division of the first split (kāṇḍaka) is a trail (āvalī) as divided by the innumerate two times. Above in sequence, once, twice, thrice, the innumerate part of trail (āvalī) as 8

∂

times the phase (bhāse) is to be known.

In this sequence, the middle division happens to be symbolized through small circle (vindī). The subjected-phase (viṣaya bhūta-bhāva) of the last division of the last split (kāṇḍaka) is innumerate universe (loka) ie., $\equiv \partial$. This is the implication of the structure.

Again corresponding to the quarter (kṣetra), when the divisions become relative to fluent (dravya) measuring innumerate part of linear-finer (sūcyaṅgula), there binds one point (pradeśa). Again corresponding to time, during the period of binding of points (pradeśa) measuring finger-cubed (ghanāṅgula) relative to pole-increase (dhruva vṛddhi), one instant increases. Hence corresponding to first split (kāṇḍaka), the minimal quarter (kṣetra) is subtracted from the maximal quarter (kṣetra) as

$$\begin{array}{r} 6 \mid \partial - \text{३} \\ \text{३} \mid \partial \mid 8 \partial - \text{३} \\ \text{३} \partial \end{array}$$

Here on observing equality on equidividing (samacchedana) the cube-finger or finger-cubed (ghanāṅgula) point-set (pradeśa-rāśi), numerate is subtracted from the multiplier which is of innumerate and division is made by numerate times innumerate similarly minimal period is subtracted from maximal period, as

$$\begin{array}{r} 6 \mid \partial - \text{३} \\ \text{३} \partial \end{array}$$

There are added on making equidivisor (samaccheda) corresponding to first division, getting the period of quarter (kṣetra) corresponding to the last division.

Again this quarter special (kṣetra-viśeṣa) is divided by period-special (kāla-viśeṣa), getting

$$\begin{array}{r} 6 \mid \partial - \text{३} \\ \text{३} \mid \partial \mid 8 \partial - \text{३} \\ \text{३} \partial \end{array}$$

On cancellation, we get cube-finger (ghanāṅgula) as divided by cube-trail (ghana-āvalī), as the measure of pole-increase as 8. Similar is to be known conformally possible, corresponding to other splits also.

∂

Again, relative to non-pole (adhruva) increase, corresponding to quarter (kṣetra), innumerate part and numerate part of cube-finger (ghanāṅgula), and cube-finger (ghanāṅgula), and cube-finger (ghanāṅgula) as multiplied by numerate and innumerate, and similarly is to be stated corresponding to universe line (jagacchreṇi) and universe-square (jagatpratara). Hence while so many so many, so many points (pradeśas) increase, an instant increases corresponding to time, and their symbolism is as

$$\begin{array}{ccccccc} 6 & 6 & 6 & 6\text{३} & 6\partial & - & - & - & -\text{३} & -\partial & = \\ \partial & \text{३} & & & & \partial & \text{३} & & & \partial & \end{array}$$

$$\text{and } = =\text{३} =\partial$$

Again in the structure of the supreme-clairvoyance (parama-avadhi) the subjected-partial-clairvoyance-fluent (viṣayabhūta deśāvadhi dravya) is divided by pole-divisor (dhruvahāra), getting the fluent (dravya) of first division as

$$\begin{array}{cc} \text{va} \\ 9 & 9 \end{array}$$

Again, above we divide by the pole divisor (dhruva hāra) for once more than the preceding, getting the second, etc., divisions. For the last division, the fluent (dravya) amounting to pole-divisor (dhruvahāra) is 9 . Again whatever is the number order of division, viz., one, three, six, ten, fifteen, etc., the summation sum upto those many of number of terms (gaccha), is found out. Now as much as is the summation sum or positive (dhana), that is multiplied innumerate times the trail āvalī, 8

and when the universe (loka) $\equiv \partial$ is multiplied by the product of both, we get the measure of the quarter (kṣetra) corresponding to first etc., division, where as when the universe (loka) $\equiv \partial$ is multiplied by innumerate universe (loka) $\equiv \partial$ as mutually multiplied three times, we get the measure of the quarter (kṣetra) corresponding to the last division.

When the pit (palya) as reduced by an instant (samaya) $pa - 1$ is multiplied as above, we get the measure of time.

Again, the phase measue (bhāva pramāṇa) is obtained corresponding to first, etc., divisions, on multiplying innumerate-universe (asaṁkhyāta loka), $\equiv \partial$, by innumerate part of trail (āvalī), 8

once, twice, thrice, etc., increasing the number of factors, every times, one by one; and then the phase measure, corresponding to the last division is obtained on multiplying the innumerate-universe (asaṁkhyāta loka), $\equiv \partial$, by innumerate-universe (asaṁkhyāta loka), $\equiv \partial$.

Again according to the operational-formula, icchida rāsiccheda, etc., the symbolism of the logarithm to base two of innumerate part of trail (āvalī) amounting to intermediate or medium peripheral innumerate (madhyam parīta-asaṁkhyāta) as reduced by numerate is given by $16 - 4$. Here symbol for subtraction is a horizontal bar ahead of which is symbol for numerate as digit of four. When the logarithm of pit (palya) etc., to base two is divided by the preceding, whatever quotient sets are obtained, they are placed in a line and mutually multiplied as many times as is the innumerate part of trail (āvalī).

palya ka (of palya) che 16 - 4	sūcyaṅgula ke (of linear finger) che che 16 - 4	jagacchreṇi ke (of universe-line) vi che che 16 - 4	loka ke (of universe) vi che che 9 16 - 4
---	---	--	--

then the sets, pit (palya) etc are produced.

Hence, according to the formula

diṇṇacchedeṇa vahida, etc., corresponding to the measure-set (pramāṇa-rāśi) the giveable (deya) is innumerate part of trail (āvalī), and the distribution-set (viralana-rāśi) is the logarithm to base two of universe (loka) as divided by logarithm to base two of innumerate part of trail (āvalī).

Thus the measure-set (pramāṇa-rāśi) is

$$\begin{array}{c} de \mid 8 \\ \partial \mid \\ vi \quad vi \quad che \quad che \quad 9 \\ 16 - 4 \end{array}$$

the fruit set (phala rāśi) is of universe-measure (loka mātra), as \equiv .

Corresponding as the requisition-set (icchā-rāśi) the giveable-set (deya-rāśi) is innumerate part of trail (āvalī), and the distribution (viralana) set (rāśi) is the summation-positive (saṅklana dhana).

Hence corresponding to the last-division, the total number of divisions of number of terms (gaccha) supreme-clairvoyance (paramāvadhi) has the measure

$$\begin{array}{c} 1 \text{ ———} \\ \quad \quad 1 \text{ —} \\ \equiv \partial \ 6 \ 1 \ \partial \\ \quad \text{pa} \\ \quad \partial \end{array}$$

Cf. GJK, vol.2, pp. 648 et seq.

Hence number of terms (gaccha) as reduced by unity and total number of terms mutual product is divided by two and one, getting :

requisition-set
(iccā rāśi)

$$1 \text{ —}$$

$$\begin{array}{c} 1 \text{ ———} \\ \quad \quad 1 \text{ —} \\ \text{vi} \equiv \partial \ 6 \ \partial \\ \quad \text{p} \quad 2 \\ \quad \partial \end{array}$$

de 8

$$\partial$$

$$\begin{array}{c} 1 \text{ ———} \\ \quad \quad 1 \text{ —} \\ \equiv \partial \ 6 \ \partial \\ \quad \text{pa} \ 1 \\ \quad \partial \end{array}$$

Cf. GJK, vo.2, p. 656.

Hence whatever is the amount of resulting-set or acquisition-set (labdha rāśi), as many times that is mutually multiplied the universes (lokas), as $\equiv \partial \equiv \partial \equiv \partial$.

This is the multiplier corresponding to last division of supreme-clairvoyance (paramāvadhi) for finding out the quarter (kṣetra) and time (kāla) measures.

paramāvadhi viśaya bhūta dravyādi racanā | (structure about fluent etc. concerned with supreme clairvoyance)

nāma (name)	dravya (fluent)	kṣetra (quarter)	kāla (time)	bhāva (phase)
anta bheda (last division)	9	≡ ≡ ∂ ≡ ∂ ≡ ∂	pa - 1 ≡ ∂ ≡ ∂ ≡ ∂	≡ ∂ ≡ ∂
madhya bheda (middle division)	0 0	0 0	0 0	0 0
pañcama bheda (fifth division)	va 9 9 9 9 9	≡ 8 15 ∂	pa - 1 8 15 ∂	≡ ∂ 8 8 8 8 8 ∂ ∂ ∂ ∂ ∂
caturtha bheda (fourth division)	va 9 9 9 9 9	≡ 8 10 ∂	pa - 1 8 10 ∂	≡ ∂ 8 8 8 8 8 ∂ ∂ ∂ ∂ ∂
trītiya bheda (third division)	va 9 9 9 9	≡ 8 8 8 8 8 ∂ ∂ ∂ ∂ ∂	pa - 1 8 8 8 8 8 ∂ ∂ ∂ ∂ ∂ ∂	≡ ∂ 8 8 8 8 8 ∂ ∂ ∂ ∂ ∂
dvītiya bheda (second division)	va 9 9 9	≡ 8 8 8 ∂ ∂ ∂	pa - 1 8 8 8 ∂ ∂ ∂	≡ ∂ 8 8 8 ∂ ∂
prathama bheda (first division)	va 9 9	≡ 8 ∂	pa - 1 8 ∂	≡ ∂ 8 ∂

Again corresponding to the all-clairvoyance (sarvāvadhi), subjected fluent (viṣayabhūta-dravya) is one ultimate particle (paramāṇu), the subjected-quarter (viṣayabhūta-kṣetra) is universe (loka) as multiplied by innumerate-universe (asamkhyāta loka) five times, and the subjected-time (viṣayabhūta kāla) is pit (palya) as reduced by an instant and multiplied by the innumerate-universe (asamkhyāta-loka) four times

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dravya

kṣetra

kāla

$$1 \equiv \equiv \partial \equiv \partial \equiv \partial \equiv \partial \equiv \partial \quad \text{pa} - 1 \equiv \partial \equiv \partial \equiv \partial \equiv \partial$$

Again the phase (bhāva) from the minimal partial-clairvoyance (deśāvadhi) the all-clairvoyance (sarvāvadhi), corresponding to divisions relative to all-fluent (sarva dravya), is to be known respectively innumerate part of trail (āvalī) times.

Again, the clairvoyance quarter (avadhi-kṣetra) of the vaimānika divine beings is to be known as given in the table :

anuttara 5	$\bar{7} \mid 14 \bar{7}$	$\bar{7}$
anu 2	$\bar{7} \mid 13 \bar{7}$	$\bar{7}$
grai 9	$\bar{7} \mid 11 \bar{7}$	$\bar{7}$
ā 2	$\bar{7} \mid 10 \bar{7}$	$\bar{7}$
ā 2	$\bar{7} \mid 19 \bar{2}$	$\bar{7}$
śa 2	$\bar{7} \mid 8 \bar{7}$	$\bar{7}$
śu 2	$\bar{7} \mid 15 \bar{2}$	$\bar{7}$
lā 2	$\bar{7} \mid 6 \bar{7}$	$\bar{7}$
bra 2	$\bar{7} \mid 11 \bar{2}$	$\bar{7}$
sa 2	$\bar{7} \mid 4 \bar{7}$	$\bar{7}$
sau 2	$\bar{7} \mid 3 \bar{2}$	$\bar{7}$

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Here, below and by the side, the length-breadth (bhuja koṭi) may be known to be one rājū, and in the middle, the measures of height are to be known as one and half, four, five and half, six, seven and half, eight, nine and half, ten, eleven, thirteen, fourteen rājūs. [Note : rājū is translated as rope, literally].

Here are the clairvoyance quarters (kṣetras) of saudharma pair, upto the Ratna-prabhā, hence from there the height is one and half rājūs. And about the sanat kumāra pair, upto the śarkarā prabhā is the clairvoyance quarter (kṣetra) where it is four rājūs. Similarly height-of other are to be known. The structure for knowing that is shown in the table page number 245 .

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In the above structure, structure of universe is constructed whatever the height was there, has been written ahead of the name of the structure in rājūs in digital number. Corresponding to the paradises (svargas), where there were two indras, there two, one have been written as symbol. Where there was one indra, there for one, one small circle has been written as symbol. The line as symbol has been drawn from the place of ā particular vaimānika divine being, below upto the quarter (kṣetra) of his clairvoyance (avadhi). Hence the cubic result (ghanaphala) of the clairvoyance quarter (avadhi-kṣetra) is respectively, for saudharma pair (dvika), etc., as one and half, four, five and half, six, seven and half, eight, nine and half, eleven, thirteen slightly less than fourteen cubic-rajus is the quarter (kṣetra). Hence the symbol of cubic rājū is

$$\equiv 343$$

Ahead of it one and half, etc., multiplier are written as symbols.

Again, the state-fluent (ṣattva-dravya) of total functionals (karmas), is product of slightly less one and half geometric-regression (guṇahāni) and instant-effective-bond (samaya prabaddha), as sa ७ 12— This is divided by seven, getting that of the knowledge-screening (jñānāvaraṇa) as

7

This is divided by infinite, the major part there of is the fluent (dravya) of the destructive (ghātiyas), as

1— sa ७ 12 — kha 7 kha	Note : That in ASG it is 1— kha kha
------------------------------	---

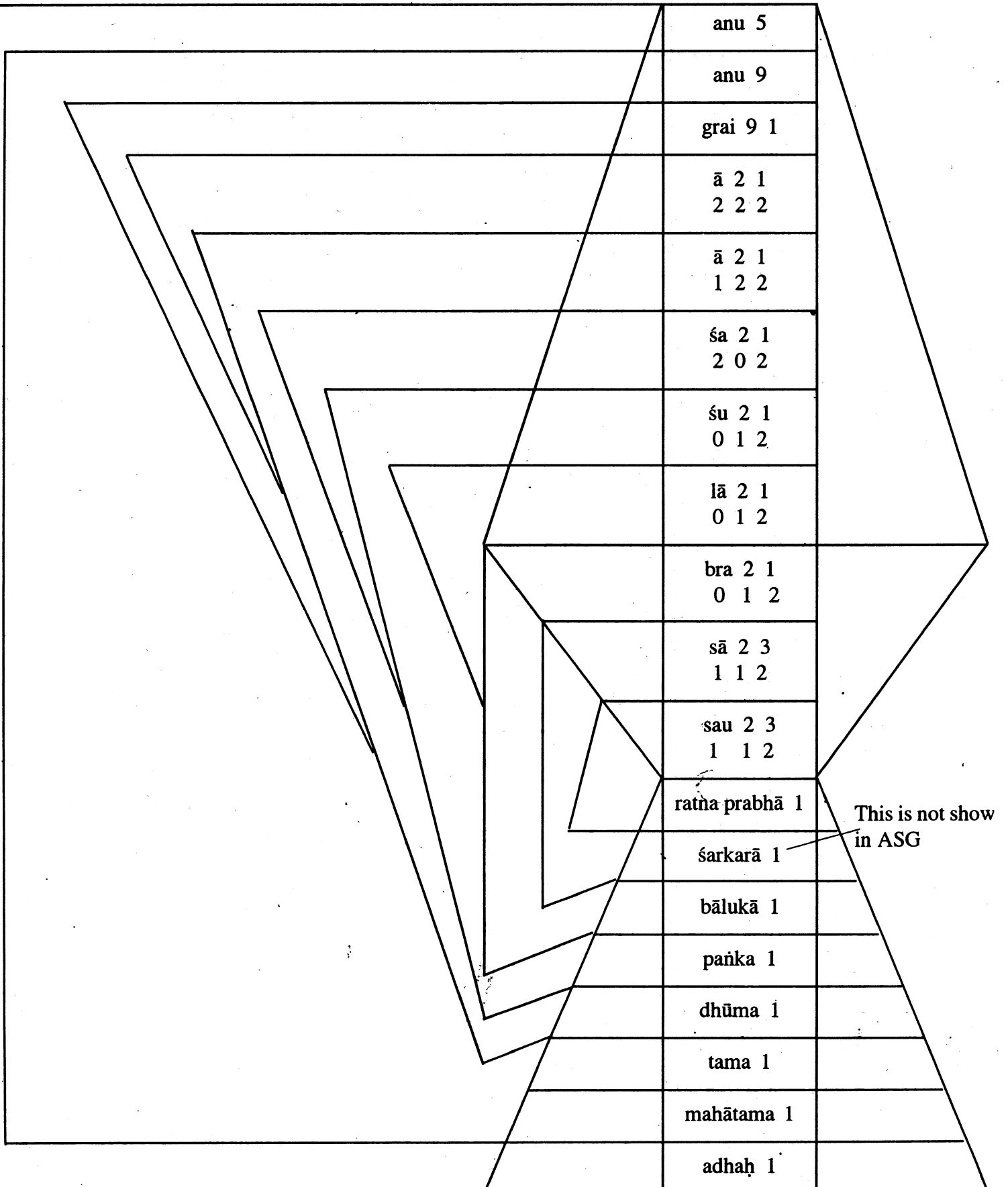
Here there is one less in the multiplier. Not according to it, one cancellation we have

$$\text{sa } ७ \text{ } 12 - \\ 7$$

This is divided by four getting the fluent (dravya) of the clairvoyance knowledge-screening (avadhi jñānāvaraṇa) is as

$$\text{sa } ७ \text{ } 12 - \\ 7 \quad 4$$

Hence whatever amount of points (pradeśas) of their own, as many times it this fluent (dravya) of clairvoyance knowledge-screening (avadhi jñānāvaraṇa) is divided by the pole-divisor (dhruva hāra); whatever fluent (dravya) is obtained, that is known by the vaimānika divine-beings (devas) through clairvoyance-knowledge (avadhi-jñāna). Their structure is as follows :-



	anu 5	
	anu 9	
	grai 9 1	
	ā 2 1 2 2 2	
	ā 2 1 1 2 2	
	śa 2 1 2 0 2	
	śu 2 1 0 1 2	
	lā 2 1 0 1 2	
	bra 2 1 0 1 2	
	sā 2 3 1 1 2	
	sau 2 3 1 1 2	
	ratna prabhā 1	This is not show in ASG
	śarkarā 1	
	bālukā 1	
	pañka 1	
	dhūma 1	
	tama 1	
	mahātama 1	
	adhaḥ 1	

TRANSCRIPTION

nāma (name)	saudharma dvika	sanat kumāra dvika	brahma dvika	lāntava dvika	śukra dvika	śatāra dvika	ānata dvika	āraṇa dvika	graiveyika 9	anudīśa 9	anuttara 5
ksetra pramāṇa (quarter measure)	3 343 2	4 343	11 343 2	6 343	15 343 2	8 343	19 343 2	10 343	11 343	12 343	14 343
avadhi jñāna āvaraṇa dravya (screening fluent of clairvoyant knowledge)	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4	sa 12 - - 7 4

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Again, the symbolism of subjected-quarter (visayabhūta) kṣetra and time (kāla) of clairvoyance of bhavanatrika divine-beings (devas), the time of vaimānikas, the quarter (kṣetra) of the hellish-beings (nārakīs) is simple. That may be known according to the statement, conformally possible. Again, corresponding to subjected (viṣayabhūta) fluent (dravya) etc. of telepathy-knowledge (manah-paryaya-jñāna), the instant-effective-bond (samaya prabaddha) of the physical or the macro (audārika) body fit for disintegration as an instant, is $sa \partial$. This is multiplied by infinite-times the bios-set (jīva rāśi), we get the measure ultimate particles (paramāṇus) natural-accumulation (vissasapacaya) as $sa \partial 16 kha$. Into this for adding the instant-effective-bond (samaya-prabaddha) of the physical macro (accdārika), there is made one in excess above the multiplier ahead, this gives the subjected-minimal-fluent (viṣaya-bhūta jaghanya dravya) of produced strngth (rjumati) telepathy (manahparya) as

$$\begin{array}{ccc} 1- & & 1- \\ sa \partial 16 kha & [Note \text{ that in ASG there is } 16 kha] \end{array}$$

Again, the measure-set (pramāṇa rāśi) is the immersion (avagāhanā of physical-macro-body) (audārika śarīra) is numerate cube-finger (ghanāṅgula), the fruit-set (phala rāśi) is instant-effective-bond (samaya prabaddha) in form of disintegration (nirjarā) of physical-macro-body (audārika śarīra) together with natural-accumulation (visrasapacaya), the requisition-set (icchā rāśi) is the immersion (avagāhanā) of ocular-sense (cakṣu-indriya) in the sense-way-ward (indriya mārgaṇā)

TRANSCRIPTION

pramāṇa $6 \text{ } \text{᳚}$	phala $1-$ $sa \partial 16 kha$	icchā rāśi $6 \text{ pa } 1-$ ∂ $pa \text{ } \text{᳚} \text{ } \text{᳚} \text{ pa}$ $\partial \quad \partial$
----------------------------------	---------------------------------------	--

the aquisition-set (labdha rāśi) is the subjected fluent (viṣaya-bhūta dravya)

$1-$ $sa \partial 16 kha \mid 6 \text{ pa}$ $\partial.$ $1-$ $6 \text{ } \text{᳚} \text{ pa } \text{᳚} \text{ } \text{᳚} \text{ pa}$ $\partial \quad \partial$

Now this is divided by the pole-divisor (dhruva hāra) symbolized by digit of nine, 9, which is the measure

$1-$
 $ja \quad 1$
 $kha \text{ } kha$

as the infinitesimal part of the division if the mind-variform (mana vargaṇā). This gives the subjected-minimal-fluent (viṣayabhūta jaghanya dravya) of the not-produced and curved (vipula-mati) telpathy (manah paryaya).

Again corresponding to volition-way-ward (yoga mārgaṇā) the mentioned karma-finishing (kārmāṇa) instant-effective-bond (samaya-prabaddha), without natural-accumulation (visrasopacaya) is $sa \partial \partial \partial kha kha$.

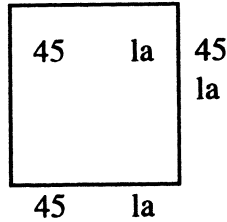
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This is divided by the symbol of pole-divisor (dhruva hāra) symbolized by digit nine, getting the subjected-fluent (viṣaya-bhūta-dravya) of second division of the second division of not-produced and curved (vipula mati) telepathy (manah paryaya) as

sa ॐ ॐ kha kha
9

Now this is divided by innumerate kalpa-period as pole-divisor (dhruvahāra) ka ॐ 9 9 9 getting the subjected maximal-fluent (viṣayabhūta utkr̥ṣṭa-dravya) of the not-produced-curved (vipulamati) telepathy (manah paryaya).

Now the structure of the produced-straight (r̥ju mati) subjected-minimal-quarter (viṣayabhūta-jaghanya kṣetra) is two or three kośa; maximal is seven or eight yojanas. The subjected-quarter (viṣayabhūta-kṣetra) corresponding to the minimal quarter (jaghanya-kṣetra) of non-produced-curved (vipulamati) telepathy is eight or nine yojanas; that for the maximal is forty-five lac yojanas-equi-quadrilateral (sama-caturasra) quarter (kṣetra) whose structure is



Note that in ASG, rectangular quadrilateral is drawn. Again the subjected-period (viṣaya bhūta-kāla) corresponding to the produced-straight-telepathy (r̥ju-mati-manahparyaya) at minimum is two, three, birth-to-death period (bhavas), at the maximal seven or eight birth-to-death period (bhavas). This subjected-period (viṣayabhūta-kāla) corresponding to the non-produced-curved telepathy (vipulamati manahparyaya) at minimal is eight or nine birth to death period (bhavas), and as maximal is innumerate parts of pit (palya), as pa

ॐ .

Again the subjected-phase (viṣayabhūta-bhāva) of the produced-straight-telepathy (r̥jumati-manah paryaya) at the minimal is the cube-trail (ghanāvalī) or divided numerate three times, and at the maximal it is innumerate times the preceding, and still innumerate times the result is the minimal subjected-phase (viṣayabhūta-bhāva) of the non-produced-curved-telepathy (vipulamati-manahparyaya), and its maximal subjected (viṣaya) is to be known as innumerate-universe (asamkhyāta-loka). Their structure is as follows :

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TRANSCRIPTION

nāma (name)	dravya (fluent)	kṣetra (quarter)	kāla (time)	bhāva (phase)
utkrṣṭa vipula mati (maximal complex)	$\begin{array}{ccccccc} & - & - & & & & \\ \text{sa} & \partial & \partial & \partial & \text{kha} & \text{kha} & \\ 9 & \text{ka} & \partial & 9 & 9 & 9 & \end{array}$	yo 4500000	$\begin{array}{c} \text{bha pa} \\ \partial \end{array}$	$\equiv \partial$
madhya vipula mati (middle complex)	$\begin{array}{c} 0 \\ 0 \end{array}$	$\begin{array}{c} 0 \\ 0 \end{array}$	$\begin{array}{c} 0 \\ 0 \end{array}$	$\begin{array}{c} 0 \\ 0 \end{array}$
jaghanya vipula mati (minimal complex)	$\begin{array}{c} \text{dvitiya bheda} \\ - - \\ \text{sa} \partial \partial \partial \text{kha kha} \\ 9 \end{array}$	yo 8 9	bha 8 9	$\begin{array}{ccc} 8 & \partial & \partial \\ \partial & \partial & \partial \end{array}$
	$\begin{array}{c} \text{jaghanya} \\ 1- \\ \text{sa} \partial 16 \text{kha} 6 \text{pa} \\ \partial \\ 1- \\ 6 \text{ } \text{pa} \text{ } \text{pa} \text{ } \text{pa} 9 \\ \partial \quad \partial \end{array}$			
utkrṣṭ rjumati (maximal simple)	$\begin{array}{c} 1- \\ \text{sa} \partial 16 \text{kha} 6 \text{pa} \\ \partial \\ 1- \\ 6 \text{ } \text{pa} \text{ } \text{pa} \text{ } \text{pa} \\ \partial \quad \partial \end{array}$	yo 7 8	bha 7 8	$\begin{array}{ccc} 8 & & \partial \\ \partial & \partial & \partial \end{array}$
madhya rjumati (middle simple)	$\begin{array}{c} 0 \\ 0 \end{array}$	$\begin{array}{c} 0 \\ 0 \end{array}$	$\begin{array}{c} 0 \\ 0 \end{array}$	$\begin{array}{c} 0 \\ 0 \end{array}$
jaghanya rjumati (minimal simple)	sa ∂ 16 kha	kro 2 3	bha 2 3	$\begin{array}{ccc} 8 & & \\ \partial & \partial & \partial \end{array}$

ASG p. 151 There for gaps of the middle divisions small circles (vindis) are kept as symbols. Again, the number of the bios is stated as below.

The rational-knower (matijñānī), scripture knower (srulajñānī) bios set is each innumerate part of pit (palya),

pa

∂

The bios set of telepathy knower (manaḥ-paryaya-jñānī) is numerate, ३. The set of the omniscient (kevala-jñānī) is numerate more than the accomplished set (siddha rāśi) as ३

3

Again the bios set of the clairvoyance knower is

1- $\frac{1}{2}$

pa | ∂ - ३

∂ ∂

Here corresponding to the bios set of the rational-knower (matijñānī), the sub human and rational knower bios-set without clairvoyance-knowledge (avadhijñāna) of which the innumerate-part, for subtraction of which there happens to be division of innumerate and multiplication of innumerate as reduced by unity. And for showing subtraction of numerate human without clairvoyance (avadhi) symbol - ३ is to be known.

Again the vibhaṅga knower divine (vibhaṅga-jñāni-devas) are as

||.

1

३ -

1

=

4 | 65 =

Here ahead of the divine-set (deva rāśi) for showing subtraction of the set of the serene-visioned (samyak dṛṣṭis), symbol - is to be known.

Again the subhuman amounting to universe line (jagaccheṇī) as multiplied by cube finger (ghanāṅgula) as multiplied by innumerate part of pit (palya) is as - 6 pa

∂

Again the human are numerate as ३. The hellish beings (nārakis) are as - 2-. Here corresponding to the hellish beings (nārakis), the symbol - is used for showing subtraction of serene-visioned (samyak dṛṣṭi) bios-set.

Hence, corresponding to the divine (deva) bios-set, for mixing these three sets, three vertical lines are placed above as symbol, getting the symbol for the vibhaṅga-knower (vibhaṅga-jñāni) as

||||

1

३ -

1

=

4 | 65 = 1

Again each of the illusive-perception-knower and (kumati jñānī) and illusive-scripture-knower (kuśruta-jñānī), is 13 - .

Here corresponding to the mandane-set (saṁsārī), for showing the subtraction of the five-serene-knower (pañca saṁjñānī) bios-set, symbol of – is ASG p. 152 kept ahead for slightly less (kincidāna).

TRANSCRIPTION

kumati	kuśrutā	vibhaṅga	mati	śrutā	avadhi	manah paryaya	kevala
		 111 1	pa	pa	1- pa 0 7	7	7 3
13 -	13 -	= 4 65 = 1	0	0	0 0		

Further, corresponding to the regulation-way ward chapter the following number of bios are symbolized:

SYMBOLISM ON REGULATION-WAYWARD (SĀMYAMA-MĀRGAṆĀ)

The symbolism is as follow
TRANSCRIPTION

nāma (name)	śamāyika (meditation)	chedopasthāpanā (reinitiation)	parihāra viśudhi (depurating non injury)	sūkṣma sāmparāya (slight affec- tion)	yathākhyāta (perfect conduct)	saṁyamā saṁyama (regulation -non regulation)	asaṁyama (non regulation)
pramāṇa (measure)	89099103	89099103	6997	897	899997	pa 0 0 4 0	13 -

Here the number of the regulated-non-regulated (saṁyamāsaṁyama) will be stated ahead. The number of partially-regulated control stationed bios-set (deśa-saṁyata-guṇasthāna vartī jīva rāśi) corresponding to the serenity-way-ward (saṁyaktva-mārgaṇā) will be stated ahead.

Again symbol – has been shown to show subtraction of the other six regulated (saṁyamī) number from the mundane-set (saṁsārī-rāśi), giving the number of the non-regulated (asaṁyamī). Other symbols are all simple.

SYMBOLISM ON VISION-WAYWARD (DARSANA MĀRGAṆĀ)

Here the symbolism corresponding to number of bios is
TRANSCRIPTION

nāma (name)	śakti cakṣurdarśanī (potent optical visionary)	vyakta cakṣur darśanī (manifest optical visionary)	acakṣur darśanī (optical visionary)	avadhi darśanī (clairvoyant visionary)	kevala darśanī (omni visionary)
pramāṇa (measure)	= 1 2 = 4 4 2 0	= 2 - 4 4 5	13 -	1- pa 0 - 7 0 0	7 3

Here the measure set (pramāṇa-rāśi) is two-sensed (vendriya) etc., four, 4, fruit-set (phala-rāśi) is the measure of the mobile-bios-set (trasa-jīvas) as

$$= \\ 4 \\ 2$$

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The requisition-set (icchā-rāśi) is the four sensed and the five-sensed, as two, 2, then (the acquisition set) (labdha-rāśi) as

$$= 1 \ 2 \\ 4 \ 4 \\ 2 \\ \partial$$

Here two sensed (bendrī) etc., hence subsequent sequence as slightly less. hence for making slightly less, and for subtracting the number of the developable symbol is =, getting the symbolism of empowered ocular-vision-bioset (śakti-gata cakṣur darśanī jīva-rāśi). Again, making the measure set (pramāṇa-rāśi), requisition-set (icchā-rāśi) as earlier, and the fruit-set (phala-rāśi) as the number of the developable mobile bios-set (paryāpta trasa-jīva-rāśi) as

$$= \\ 4 \\ 5$$

the acquisition-set (labdha-rāśi) is as

$$= 2 \\ 4 \ 4 \\ 2 \\ \partial$$

Here the two-sensed (bendrī) etc. have sequentially, decreasing sequence, hence for having slightly less (kiñcidñā) symbol is kept as –, getting symbolism for the expressed (vyakta) ocular-visioned-bios-set (cakṣur darśanī jīva-rāśi).

Again for making slightly less from the mundane-set (saṁsārī-rāśi), symbol of – is shown getting the non-ocular-visioned-bios-set (acakṣur darśanī-jīva-rāśi). Similarly the symbolism for the clairvoyance and omniscience knower is to be known as the same as stated in the knowledge-way-ward (jñāna-mārgaṇā).

SYMBOLISM ON COMPLEX-WAY-WARD (LEŚYĀ-MĀRGAṆĀ)

There, according to sense expression (indriya) vyakta the black, etc., fluent-complex (dravya leśyā) are numerate. There the symbolism is ३. And according to the particle-multiplier (skandhas) are innumerate as ∂, or innumerate universe (asaṁkhyāta loka) symbolized as ≡ ∂. Again they are, according to ultimate-particles (paramāṇus), infinite symbolized as kha.

Again the rise-stations (udaya-sthānas) of affections (kaṣāyas) are innumerate universe (asaṁkhyāta-loka) as ≡ ∂. There are divided by the conformally consistent innumerate universe (asaṁkhyāta-loka) symbolized as digit of nine 9, the major-part there of are the stations of non-gracious-complex (aśubha-leśyā) in form of depression (saṅkleśa), as

$$\begin{array}{c} \equiv \partial 8 \\ 9 \end{array}$$

One part there of are the stations of gracious-complex (śubha-leśyā) in form of elevation (viśuddhi) as

$$\begin{array}{c} \equiv \partial 1 \\ 9 \end{array}$$

Here, dividing by the divisor, the major part there of is given by product of the divisor as reduced by unity. And the one part there of is to be known as multiplied by one.

Again, the stations (sthānas) set of the non-gracious-complex (aśubha-leśyā) is to be divided by that counter-part (pratibhāg getting major-part-major-part there of as set of stations of the black, blue complex stations (leśyā-sthānas), and one part there of is the set of stations (sthānas) of the grey (kāpota) complex (leśyā). Again, when the set of stations (sthānas) of gracious-complex (śubha-leśyā) is divided by the counter-part (pratibhāga), the major part there of is the set of stations (sthānas) of yellow-pink (pīta-padma) templex (leśyā) and one part there of is to be known as the set of stations (sthānas) of the white-complex (śukla-leśyā).

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Their structure is set of stations (sthānas) of all affections (keṣāyas) $\equiv \partial$

set of stations (sthānas of
nongracious complexes
(aśubha leśyas)

set of stations (sthānas of
gracious complexes
(śubha leśyas)

$$\begin{array}{c} \equiv \partial 18 \\ 9 \end{array}$$

$$\begin{array}{c} \equiv \partial 1 \\ 9 \end{array}$$

TRANSCRIPTION

kṛṣṇa (black)	nīla (blue)	kapota (grey)	pīta (yellow)	padma (pink)	śukla (white)
u o o o o o ja	u o o o o o ja	u o o o o o ja	ja o o o o o u	ja o o o o o u	ja o o o o o u
$\equiv 1 \partial 18$	$\equiv \partial 18$	$\equiv \partial 18 11$	$\equiv 1 \partial 18$	$\equiv \partial 18$	$\equiv 1 \partial 1$
9 9	9 9 9	9 9 9	9 9	9 9 9	9 9 9

Here in between the maximal and the minimal, as well as in between the minimal and the maximal, the symbol of small circles (vindis) is meant for denoting the middle or intermediate stations (sthānas). Stations (sthānas) of non-gracious-complex (aśubha leśyā) are as

$$\begin{array}{c} \equiv \partial 8 \\ 9 \end{array}$$

When this amount is respectively multiplied by eight, eight and one relative to symbolism, and divided respectively once, twice, and thrice by nine, than the stations (sthānas) of black, etc., complexes (leśyās) are obtained.

Again stations (sthānas) of gracious-complex (śubha-leśyā) are as

$$\begin{array}{c} \equiv \partial \\ 9 \end{array}$$

When this is multiplied respectively by eight, eight, one and divided by nine, once, twice and twice, we get the stations (sthānas) of yellow complex (pīta-leśyā), etc.

Again, measure of the bios binding age (āyu) through down-traction (apakarṣaṇa) is slightly less than the mundance-set (saṁsārī-rāśi) is as $13 - \text{𑂔}$. This is divided by numerate, 𑂔 , major part there of is the measure of binders of age upto once, etc., seven through down-traction (apakarṣaṇa), and one part there of is the measure of binders of age upto eight, through down-traction (apakarṣaṇa) as follows

$13 - \text{𑂔} - 1$ 𑂔	$13 - \text{𑂔} - 1$ $\text{𑂔} \text{ 𑂔}$	$13 - \text{𑂔} - 1$ $\text{𑂔} \text{ 𑂔} \text{ 𑂔}$	$13 - \text{𑂔} - 1$ $\text{𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔}$	$13 - \text{𑂔} - 1$ $\text{𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔}$	$13 - \text{𑂔} - 1$ $\text{𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔}$	$13 - \text{𑂔} - 1$ $\text{𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔}$	$13 - \text{𑂔} - 1$ $\text{𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔} \text{ 𑂔}$
1	2	3	4	5	6	7	8

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There about the major-part there of numerate as reduced by unity is $\text{𑂔} - 1$ and its multipliers the divisors are in sequence as one, two, three, four, five, six, seven times written the symbol of numerate, 𑂔 . About the one part, the multiplier is unity, and divisor is numerate written seven times. Than below all the above, the symbols once, twice, etc., are denoted through numerals, one to eight denoting down-tractions (apakarṣaṇa).

Again, for the age-binder having eight down-tractions (apakarṣaṇa), the minimal time or period of age-binding during eight down-traction (apakarṣaṇa) is small, as intermuhūrta (antar-muhūrta), 2 𑂔 . This is divided by four, the symbol of numerate, one part there of in excess is its maximal period is

$$\frac{2 \text{ 𑂔} \mid 5}{4}$$

This is now multiplied by four, the symbol of numerate, getting the minimal period during the seventh downtraction (apakarṣaṇa) as

$$\frac{2 \text{ 𑂔} \mid 5 \mid 4}{4}$$

Specifically greater than this is its maximal period as

In the commentary, similarly seventy-two stations (sthānas) have been related upto the maximal of one down-tract (apakarṣa) corresponding to them, when own minimal is multiplied by five relative to symbol and divided by four relative to symbol, that becomes the maximal. When the earlier-maximal (pūrva-utkrṣṭa) is multiplied by four, we get the post-minimal (uttara jaghanya).

Again corresponding to the number of bios, the bios with black, etc., non gracious-complexes (aśubha-leśyās) are slightly less than mundane-set (saṁsārī-rāśi) as $13 - \text{𑂔}$. This is divided by nine, digit 9, the symbol of innumerate part of trail, the major part there of as

$$\frac{13 - 8}{9}$$

This is divided into three equal parts and each one equal part is given to the bios with black etc., complexes (leśyās). The remaining one part as

$$\frac{13 -}{9}$$

which is divided by the counter-part (pratibhāga), the major part major part there of is given to the bios with black, blue complexes (leśyās), and one part is given to the bios with gray (kapota) leśyā (complex)

2 २ | 5 | 4 | 5
4 | 4

TRANSCRIPTION

nāma (name)	kṛṣṇa (black)	nīla (blue)	kapota (grey)
samāna bhāga (equal parts)	13 — 8 9 3	13 — 8 9 3	13 — 8 9 3
deya bhāga (given parts)	13 — 8 9 9	13 — 8 9 9 9	13 — 1 9 9 9

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There, according to the rule of equidivision (samaccheda) everywhere division by nine and three, three times is made similar by dividing once by nine, and observing division by three earlier, multiplication by nine twice is made.

And corresponding to given part solving the division of three by nine, multiplication by three is made similarly seeing divisor nine twice in the black-complex (kṛṣṇa-leśyā), multiplications by nine is made once. Having done this, the above table becomes

TRANSCRIPTION

nāma (name)	kṛṣṇa (black)	nīla (blue)	kāpota (grey)
samāna bhāga (equal parts)	13 — 8 9 9 3 9 9 9	13 — 8 9 9 3 9 9 9	13 — 8 9 9 3 9 9 9
deya bhāga (given parts)	13 — 8 3 9 3 9 9 9	13 — 8 3 3 9 9 9	13 — 1 3 3 9 9 9

There, on mutual multiplication and mixing equal parts and given part, the measure of bios with black complexes etc., (leśyās) are as

TRANSCRIPTION

nāma (name) pramāṇ (measure)	kṛṣṇa (black)	nīla (blue)	kapota (grey)
	13 — 864 3 729	13 — 672 3 729	13 — 651 3 729

Again, relative to period, the inter-muhūrta (antar-muhūrta) is 2 २ . It is treated according to the same rule, and the periods of the black, etc., complexes (leśyās) as

TRANSCRIPTION

nāma (name) pramāṇ (measure)	kṛṣṇa (black)	nīla (blue)	kapota (grey)
	2 २ 864 3 729	2 २ 672 3 729	2 २ 651 3 729

There the measure-set (pramāṇa rāśi) is inter-muhūrta (antar-muhūrta) as 2 ३ . Fruit-set (phala-rāśi) is the measure of the bios as 13 – , the requisition-set (icchā rāśi) is own period, then the measure of earlier mentioned bios are obtained. Thus, relative to fluent-measure (dravya māna), the bios in the black, etc., complexes (leśyās) are one third of the bios with non-gracious-complexes (aśubha-leśyās), but are sequentially in form of reduction. Hence about the set of black-complex (kṛṣṇa leśyā) vertical stroke line is made for slightly greater. and the same is done regarding the divisor of blue-complex (nīla leśyā), ie., a vertical line is made above for showing it slightly greater. Above the grey-complex (kapota leśyā) divisor, two vertical lines are made showing it slightly greater.

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Now relative to quarter-measure (kṣetra-māna), they are infinite times universe as \equiv kha , and relative to time measure, they are infinite times the past-time (atīta-kāla) as a kha , but sequentially reducing, hence above the black complex (kṛṣṇa leśyā), bios-set symbol of vertical line above is made for showing slightly greater as | . And ahead of the factor for the blue, symbol – is made to show it as slightly less. Again ahead of factor of the grey, two bars as = symbolize slightly less two times. Relative to phase-measure (bhāva-māna), they are infinite part of the omni-science (kevala-jñāna) as ke kha

but is sequentially reducing hence above the set of the black, a vertical line is made above for showing it slightly greater, and above the divisor of the blue, grey, one and two vertical lines are drawn for showing slightly greater. In this way the measure of bios-with black etc., complexes (leśyās) are known as follows : TRANSCRIPTION

nāma (name)	kṛṣṇa (black)	nīla (blue)	kapota (grey)
dravya māna (fluent-amount)	 13 – 3	13 – 3	13 – 3
kṣetra māna (quarter-amount)	 \equiv kha	\equiv kha –	\equiv kha =
kāla māna (time-amount)	 a kha	a kha –	a kha =
bhāva māna (phase-amount)	 ke kha	ke kha	ke kha

comparability

Again, corresponding to the bios with gracious-complexes (śubha-leśyās) relative to fluent-measure (dravya-māna) the bios with white-complex (śukla-leśyā) are innumerate, the bios with pink-complex (padma-leśyā) are innumerate times the preceding, and the bios with yellow-complex (pīta leśyā) are numerate times the preceding.

Relative to quarter-measure (kṣetra māna), the astral-set (jyotiṣka-rāśi) with yellow-complex (pīta-leśyā) is as $= | 65 =$

4 = 0
the bhavanavāśi set is as –1 , vyantāra set is as 4 65 = 81 | 10

saudharma dvika vāsī as

–3 , the subhuman are the universe-square (jagapratarā) as divided by the product of the square-finger (pratarāṅgula), $(2)^{(2)^4}$, ie., paṇṇatṭhī, and five times written numerate, as

$$=$$

$$4 \ 65 = \text{𑀓 𑀓 𑀓 𑀓 𑀓}$$

The human are numerate as 𑀓 .

ASG p. 158 In order to mix them, the astral-set, vyantara set get mixed as earlier, as

$$=$$

$$4 \ 65 = \text{𑀓}$$

$$1$$

Above it for showing adding of other four sets, four vertical lines above this are drawn getting the symbolism for the bios with yellow-complex (pīta leśyā) as

$$||||$$

$$=$$

$$4 \mid 65 = \text{𑀓}$$

$$1$$

Again the subhuman (tiryañca) with pink complex (padma-leśyā) amount to universe line (jagapratarā) as divided by the product of square-finger (pratarāṅgula), $\left\{(2)^{(2)^4}\right\}$, (ie., paṇṇatṭhī) and the numerate 𑀓 six times, as follows :

$$=$$

$$4 \mid 65 = \text{𑀓 𑀓 𑀓 𑀓 𑀓 𑀓}$$

Into this amount for mixing the kalpavāsī and the human two vertical lines are drawn symbolizing the bios with pink-complex (padma-leśyā).

Again the measure of bios with white complex (śukla-leśyā) is innumerate part of linear finger (sūcyaṅgula) as 2

𑀓

Relative to time-measure (kāla māna), the bios with the yellow are innumerate and numerate times the kalpa period as ka 𑀓 𑀓 . The bios with the pink are innumerate times the kalpa period, ka 𑀓 . Those with the white are innumerate part of pit (palya) as given by pa

𑀓

Relative to phase-measure (bhāva māna) the measures of the bios with the yellow, etc., are obtained on dividing the set of divisions of clairvoyance knowledge (avadhi jñāna) symbolized as the prakrit name of it first alphabet o , by innumerate, innumerate numerate, and innumerate numerate innumerate. In this way the measures of the bios with yellow, etc., complexes (leśyās) are as follows

:-

TRANSCRIPTION

nāma (name)	pīta (yellow)	padma (pink)	śukla (white)
dravya māna (fluent measure)	ॐ ॐ ॐ	ॐ ॐ	ॐ
kṣetra māna (quarter measure)	1 = ॐ 4 65 = 1	 = 4 65 = ॐ ॐ ॐ ॐ ॐ	2 ॐ
kāla māna (time measure)	ka ॐ ॐ	ka ॐ	pa ॐ
bhāva māna (phase measure)	0 ॐ	0 ॐ ॐ	0 ॐ ॐ ॐ

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Corresponding to the chapter on quarter (kṣetra), the quarter (kṣetra) of the bios with black-complex (kṛṣṇa leśyā), own-station-own station (svasthāna-svasthāna), pathos extrication (vedanā samudghāta), affection-extrication (kaṣāya samudghāta), death-extrication (māraṇāntika-samudghāta), transmigrating (upapāda vāle) is the whole universe (loka), ≡ . There the measure of the bios is related :-

The bios-set with black-complex (kṛṣṇa-leśyā) is 13 -
3 -

This is divided by five, the symbol for numerate the major part thereof is 13 - 4
3 - 5

given to own-station (svasthāna). Remaining one parts major part is as 13 - 4
3 - 5 | 5

this is to be given to the pathos-extrication (vedanā-samudghāta). The remaining major part of one part is 13 - 4
3 - 5 | 5 | 5

is to be given to affection-extrication (kaṣāya-samudghāta). Remaining one part as 13 - 1
3 - 5 | 5 | 5

is made the fruit-set (phala rāśi). And the intermuhūrta (antar-muhūrta) as 2 ॐ is made the measure set (pramāṇa rāśi). The requisition set (icchā-rāśi) is made one instant (samaya) :

pra 2 ॐ pha 13 - 1
3 - 5 | 5 | 5

There the acquisition-set (labdha rāśi) is

13 -
3 - 5 | 5 | 5 | 2 ॐ

which is to be given to the transmigrating (upapāda).

Again, this is made the fruit-set (phala rāśi). The measure-set (pramāṇa-rāśi) is one instant, requisition-set (icchā rāśi) is one intermuhūrta (antar muhūrta).

$$\begin{array}{r} \text{pra sao 1 pha 13} - \\ 3 - 5 \mid 5 \mid 5 \mid 2 \end{array} \quad \begin{array}{r} i 2 \\ 2 \end{array}$$

then the acquisition set (labdha-rāṣi) is found to be numerate part of the original set (mūla rāṣi) as

$$\begin{array}{r} 13 - \\ 3 - \end{array} \quad \begin{array}{r} 2 \\ 2 \end{array}$$

This is to be given to death extrication (māraṇāntika-samudghāta)

Again developable mobile-set (trasa-rāṣi) is as =

$$\begin{array}{r} 4 \\ 5 \end{array}$$

from this subtraction of slightlyless gracious-complex (śubha leśyā) bios set, symbol of – is made ahead. That is divided by slightly less than three, getting the developable mobile set (trasa rāṣi) with black complex (kṛṣṇa-leśyā) as =

$$\begin{array}{r} 4 \mid 3 - \\ 5 - \end{array}$$

This is divided by five, the symbol fo numerate than the major part there of is = 4

$$\begin{array}{r} 4 \mid 3 - 5 \\ 5 - \end{array}$$

which is to be given to own station own station (svasthāna svasthāna). Remaining one part's major part is as = 4

$$\begin{array}{r} 4 \mid 3 - 5 \mid 5 \\ 5 - \end{array}$$

ASG p. 160 is to be given to vihāra vat sthāna, and remaining one part is as = 1

$$\begin{array}{r} 4 \mid 3 - 5 \mid 5 \\ 5 - \end{array}$$

This is to be given to conformally suitable other terms. There the intermediate immersion of the mobile-developable (trasa-paryāptas) is numerate cube-finger (ghanāṅgula) is made the fruit-set (phala-rāṣi); the measure-set (pramāṇ-rāṣi) is one, and the requisition-set (icchā rāṣi) is the measure of bios with vihāra vat-sthāna black complex (kṛṣṇa-leśyā), on multiplying it we get

$$\begin{array}{r} \text{pra l pha } 6 \text{ } i \\ 4 \mid 3 - 5 \mid 5 \\ 5 - \end{array} \quad \begin{array}{r} = 4 \\ 4 \mid 3 - 5 \mid 5 \\ 5 - \end{array}$$

The acquisition-set (labdha-rāṣi) is as

$$\begin{array}{r} = 4 \mid 6 \\ 4 \mid 3 - 5 \mid 5 \\ 5 - \end{array}$$

On cancellation we get the quarter (kṣetra) correspondingto vihāra-vat-svasthāna as universe-square (jagaprataṛa) as multiplied by numerate linear finger (sūcyaṅgula) as = 2

Again innumerate part of pit (palya) is pa

this is multiplied by cube-finger 6, and then the universe line (jagaichraṇ) – is multiplied by that product, and the result is divided by slightly less than three, getting the transformable set (vaikriyika rāṣi)

associated with black-complex (kṛṣṇa leśyā), as

$$\begin{array}{r} - 6 \mid p \\ 3 - \partial \end{array}$$

This is divided by five the symbol for numerate the major part there of is then

$$\begin{array}{r} - 6 \mid pa \ 4 \\ 3 - \partial \\ 5 \end{array}$$

is to be given to own station own-station (svasthāna svasthāna).

Remaining one part's major part is

$$\begin{array}{r} - 6 \mid pa \ 4 \\ 3 - \partial \\ 5 \mid 5 \end{array}$$

This is to be given to the vihāra vat own station (svasthāna). The remaining one part is

$$\begin{array}{r} - 6 \mid pa \mid 4 \\ 3 - \partial \\ 5 \ 5 \ 5 \end{array}$$

which is to be given to pathos extrication (vedanā samudghāta). This remaining one parts major part is as

$$\begin{array}{r} - 6 \ pa \ 4 \\ 3 - \partial \\ 5 \ 5 \ 5 \ 5 \end{array}$$

is to be given to affection-extrication (kaṣāya samudghāta).

Remaining one part is as

$$\begin{array}{r} - 6 \ pa \ 1 \\ 3 - \partial \\ 5 \ 5 \ 5 \ 5 \end{array}$$

which is to be given to transformable extrication (vaikriyika-samudghāta)

This is multiplied by the numerate cube-finger (ghanāṅgula) which is the immersion (avagāhanā) of conformally suitable transformability (vikriyā), getting the quarter (kṣetra) as the innumerate universe line (jagacchreni) as multiplied by the square of the cube-finger (ghanāṅgula) as, 6 | 6, corresponding to transformable-extrication (vaikriyika samudghāta) as

$$- \partial \mid 6 \mid 6$$

Again the measures of the general universe is the universe (loka), that of the lower universe (adhaloka) is four-seventh part of the universe (loka), and that of the upper universe is the three seventh part of the universe (loka), that of the horizontal universe (tiryak loka) is the 49th part of universe square (jagapratarā) is as multiplied by a lac yojana, and the human universe is numerate cube-finger (ghanāṅgula) :-

nāma (name)	sāmānya (general)	adhah (lower)	ūrdhva (upper)	tiryag (horizontal)	manuṣya (human)
pramāṇa (measure)	≡	≡ 4	≡ 3	≡ 1 la	6 २

There the bios associated with black complexed (kṛṣṇa-leśyā) and with own-station-own station (svasthāna svasthāna) pathos (vedaṇā), affection (kaṣāya), death transmigration (mārṇātika upapāda), are throughout the whole universe (loka).

Again the quarter (kṣetra) of vihāra vat own-station (svasthāna) is innumerate part of the general etc., (sāmānyādika) three universes (lokas), numerate part of the horizontal (tiryag) universe (loka), and innumerate times the human-universe (manuṣya-loka).

The quarter (kṣetra) of the transformable (vaikriyika) is innumerate part of the general etc., (sāmānyādika) four universes (lokas), and innumerate times the human-universe (manuṣya-loka).

Similarly, this is to be known about the blue (nīla) and grey (kapota) complexes (leśyās). Specifically, the measures of these bios-sets are to be known slightly less and less.

Again the bios-set associated with yellow-complex (pīta-leśyā) is

$$\begin{array}{r} \text{||} \\ \text{||} \quad 1 \\ = \quad \text{३} \\ 4 \mid 65 = 1 \end{array}$$

This is divided by numerate, the major part there of is

$$\begin{array}{r} \text{||||} \quad 1 \\ = \quad 4 \quad \text{३} \\ 4 \mid 65 = 1 \mid 5 \mid \end{array}$$

which is to be given to own station, own station (svasthāna, svasthāna). Major part of the remainder is

$$\begin{array}{r} \text{||||} \quad 1 \\ = \quad 4 \quad \text{३} \\ 4 \mid 65 = 1 \mid 5 \mid 5 \end{array}$$

is to be given to vihāravat own station (svasthāna). The major part of the remainder is

$$\begin{array}{r} \text{||||} \quad 1 \\ = \quad 4 \quad \text{३} \\ 4 \mid 65 = 1 \mid 5 \mid 5 \mid 5 \mid \end{array}$$

which is to be given to the pathos-extrication (vedaṇā samudghāta). The major part of the remainder is

$$\begin{array}{r} \text{||||} \quad 1 \\ = \quad 4 \quad \text{३} \\ 4 \mid 65 = 1 \mid 5 \mid 5 \mid 5 \mid 5 \end{array}$$

which is to be given to affection-extrication (kaṣāya samudghāta). The remainder one part is

$$\begin{array}{r} \text{||||} \quad 1 \\ = \quad 4 \quad \text{३} \\ 4 \mid 65 = 1 \mid 5 \mid 5 \mid 5 \mid 5 \end{array}$$

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which is to be given to the transformable extrication (vaikriyika samudghāta)

There the set of own station own station (svasthāna svasthāna) is multiplied by numerate part of the cube-finger (ghanāṅgula), whose quarter (kṣetra) is

$$\begin{array}{r} \text{||||} \quad 1 \\ = 4 \quad \text{२} \quad 6 \\ 4 \mid 65 = 1 \mid 5 \mid \text{२} \end{array}$$

Now the pathos (vedanā), affection (kaṣāya) extrication (samudghāta) set is multiplied by the four and a half times of the numerate part of the cube-finger (ghanāṅgula) as

$$\begin{array}{r} 6 \mid 9 \\ \text{२} \mid 2 \end{array}$$

getting the quarter of the pathos-extrication (vedanā samudghāta) as

$$\begin{array}{r} \text{||||} \quad 1 \\ = 4 \quad \text{२} \quad 6 \mid 9 \\ 4 \mid 65 = 1 \mid 5 \mid 5 \mid 5 \mid \text{२} \mid 2 \end{array}$$

And the affection-extrication quarter (kaṣāya samudghāta-kṣetra) happens to be as

$$\begin{array}{r} \text{||||} \quad 1 \\ = 4 \quad \text{२} \quad 6 \mid 9 \\ 4 \mid 65 = 1 \mid 5 \mid 5 \end{array}$$

Note that in ASG third from the top row, 4 is not given behind 65 = .

Again the vihāravat own-station (svasthāna) set is multiplied by cube-finger (ghanāṅgula), its quarter (kṣetra) happens to be

$$\begin{array}{r} \text{||||} \quad 1 \\ = 4 \quad \text{२} \quad 6 \mid 9 \\ 4 \mid 65 = 1 \mid 5 \mid 5 \end{array}$$

Again the transformable extrication-set (vedanā samudghāta rāṣi) is multiplied by cube-finger (ghanāṅgula) getting its quarter (kṣetra) as

$$\begin{array}{r} \text{||||} \quad 1 \\ = 1 \quad \text{२} \quad 6 \quad \text{२} \\ 4 \mid 65 = 1 \mid 5 \mid 5 \mid 5 \mid 5 \end{array}$$

Again the vyantara divine-set (deva-rāṣi) is given by

$$\begin{array}{r} 0 \\ \overline{4} \mid 65 = 81 \mid 10 \end{array}$$

This is divided by the numerate years as its own age with which is related the pure counting-rod (śalāka) as numerate multiplied by as innumerate numerate two times, ie. $\partial \mid \text{२} \mid \text{२}$, getting the measure of the dying beings at an instant (samaya) as

$$\overline{4} \mid 65 = 81 \mid \overset{0}{10} \mid \partial \mid \text{२} \mid \text{२}$$

This is divided by innumerate part of pit (palya), then the major part there of is the amount of the bios-set in transmigratory-motion (vighraha gati) as

$$\begin{array}{r} \text{1-} \\ = \text{pa} \\ \partial \end{array}$$

$$4 \mid 65 = 81 \mid \overset{0}{10} \mid \partial \mid \text{२} \mid \text{२} \mid \text{pa}$$

∂

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This is divided by the counter-part (pratibhāga), the major part there of is the death-extrication bios-set (māraṇāntika samudghāta jīva rāśi) as

$$\begin{array}{c}
 \frac{1-c}{pa} \quad \frac{1-c}{pa} \\
 \partial \quad \partial \\
 4 \mid 65 = 81 \mid \frac{0}{10} \mid \partial \mid \text{३} \mid \text{३} \mid pa \quad pa \\
 \partial \quad \partial
 \end{array}$$

This is divided by counter-part (pratibhāga), then one part there of is the distant-death-bios-set (dūra-māraṇāntika-jīva-rāśi) as

$$\begin{array}{c}
 \frac{1-c}{pa} \quad \frac{1-c}{pa} \quad 1 \\
 \partial \quad \partial \\
 4 \mid 65 = 81 \mid \frac{0}{10} \mid \partial \mid \text{३} \mid \text{३} \mid pa \quad pa \quad pa \\
 \partial \quad \partial \quad \partial
 \end{array}$$

This is multiplied by $\partial \mid \text{३}$, ie innumerate multiplied by numerate four counting rod (śalākā) related with intermuhūrta (antar-muhūrta) period of death-extrication (māraṇāntika-samudghāta), and divided by an instant, then the measure of all collected distant-death-extrication (dūra-māraṇāntika-samudghāta) bios-set as

$$\begin{array}{c}
 \frac{1-c}{pa} \quad \frac{1-c}{pa} \\
 = \frac{pa}{\partial} \quad \frac{pa}{\partial} \quad - 1 \quad \partial \mid \text{३} \\
 \partial \quad \partial \\
 4 \mid 65 = 81 \mid \frac{0}{10} \mid \partial \mid \text{३} \mid \text{३} \mid pa \quad pa \quad pa \\
 \partial \quad \partial \quad \partial
 \end{array}$$

Again the quarter (kṣetra) as numerate part of one rājū in length, numerate part of linear finger (sūcyaṅgula) in breadth and height is

$$\begin{array}{c}
 \boxed{\begin{array}{c} 2 \\ \text{३} \end{array}} \quad \begin{array}{c} 2 \\ \text{३} \end{array} \\
 \overline{7} \quad \text{३}
 \end{array}$$

Its volume (ghana phala) is the innumerate part of universe-line (jagacchreṇi) as multiplied by numerate part of square-finger (pratarāṅgula) as

$$\begin{array}{c}
 \text{—} \quad 4 \\
 \partial \mid \text{३} \mid \text{३}
 \end{array}$$

By this is multiplied the former set (rāśi) getting the quarter (kṣetra) of distant-death-extrication (dūra-māraṇāntika-samudghāta) as

$$\begin{array}{c}
 \frac{1-c}{pa} \quad \frac{1-c}{pa} \\
 pa \quad pa \quad 1 \mid \partial \mid \text{३} \mid \\
 \partial \quad \partial \\
 4 \mid 65 = 81 \mid \frac{0}{10} \mid \partial \mid \text{३} \mid \text{३} \mid pa \quad pa \quad pa \mid \partial \mid \text{३} \mid \text{३} \mid \\
 \partial \quad \partial \quad \partial
 \end{array}$$

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Again, the quarter (kṣetra) twelve yojanas in length, nine yojanas in breadth, numerate part of linear-finger (sūcyaṅgula) high is

$$\begin{array}{|c|} \hline 2 \\ \hline \text{३} \\ \hline \end{array} \quad \begin{array}{l} \text{yo} \\ 9 \end{array}$$

yo 12

When the numerate bios-set is multiplied by the former volume (ghanaphala) which is numerate cube-finger, as 6 ३, we get the quarter (kṣetra) of the phosphorescent extrication (taijasa-samudghāta) as ३ 6 ३.

Again the quarter (kṣetra) numerate part of linear-finger (sūcyaṅgula) is breadth and height, and numerate yojana in length is

$$\begin{array}{|c|} \hline 2 \\ \hline \text{३} \\ \hline \end{array} \quad \begin{array}{l} 2 \\ \text{३} \end{array}$$

yo ३

The volume of this is numerate cube-finger (ghanāṅgula) as 6 ३ and when the bios set is multiplied by this amount, we get the quarter (kṣetra) of the assimilation-extrication (āhāraka-samudghāta) as ३ | 6 | ३.

Again the saudharma-dvika bios-set is third root (tṛtīya-mūla) of cube-finger (ghanāṅgula). When the universe-line (jagacchreṇī) is multiplied by the former we get – 3 which is divided by innumerate part of pit (palya), we get then the measure of the dying bios-set every instant as

$$\begin{array}{r} - 3 \\ \text{pa} \\ \partial \end{array}$$

This is divided by innumerate part of pit (palya), then the major-part, there of is the measure of bios-set in transmigratory-motion (vigraha gati) as

$$\begin{array}{r} 1-\text{c} \\ - 3 \quad \text{pa} \\ \partial \\ \text{pa} \quad \text{pa} \\ \partial \quad \partial \end{array}$$

This is divided by innumerate part of pit (palya), the major part there of is the measure of death-extrication (māraṇāntika-samudghāta) is as

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$$\begin{array}{r} 1-\text{c} \quad 1-\text{c} \\ - 3 \quad \text{pa} \quad \text{pa} \\ \partial \quad \partial \\ \text{pa} \quad \text{pa} \quad \text{pa} \\ \partial \quad \partial \quad \partial \end{array}$$

This is divided by innumerate part of pit (palya); one part there of is the measure of the distant-death-extrication (dūra-māraṇāntika samudghāta) is as

This amount is divided by innumerate part of pit (palya) in order to find out the measure of transmigration (upapāda) bios set alongwith accompanied death (māraṇāntika) seated as second large rod (daṇḍa), one part thereof is the transmigration (upapāda) bios set as

$$\begin{array}{r}
 \begin{array}{cc} 1\text{—} & 1\text{—} \\ -3 & \text{pa} \mid \text{pa} \mid \\ & \partial \quad \partial \\ & \text{pa} \text{ pa} \quad \text{pa} \text{ pa} \\ & \partial \quad \partial \quad \partial \quad \partial \end{array}
 \end{array}$$

Again the quarter numerate linear finger (sūcyaṅgula) in beadhth and height, and one and half rājū in length is

$$\begin{array}{|c|} \hline \begin{array}{|c|} \hline 2 \text{ ३ } 2 \mid \text{ ३ } \\ \hline \end{array} \\ \hline \end{array}$$

Its volume is one and half rope (rājū) as multiplied by numerate square-finger (pratara-aṅgula) as 4 ३ is as

$$\begin{array}{r} -3 \mid 4 \mid \text{ ३ } \\ 7 \mid 2 \end{array}$$

By this amount the former set is multiplied getting the transmigration quarter (upapāda-kṣetra) as

$$\begin{array}{r}
 \begin{array}{cc} 1\text{—} & 1\text{—} \\ -3 & \text{pa} \text{ pa} \mid \bar{7} \text{ 3 } \mid 4 \text{ ३ } \\ & \partial \quad \partial \quad \quad 2 \\ & \text{pa} \text{ pa} \text{ pa} \text{ pa} \text{ pa} \\ & \partial \quad \partial \quad \partial \quad \partial \quad \partial \end{array}
 \end{array}$$

Now statement about the pink-complex (padma leśyā) is given :
the pink-complex bios set (padma leśyā jīva rāśi) is

$$\begin{array}{l} \parallel \\ = \\ 4 \mid 65 = \mid \text{ ३ } 6 \end{array}$$

Here in the denominator 6 ahead of ३ denote that ३ is to be written six times

This amount is divided by numerate whose symbol is digit of fine, than the major part there of is as

$$\begin{array}{l} \parallel \\ = 4 \\ 4 \mid 65 = \text{ ३ } \mid 6 \mid 5 \end{array}$$

Which is to be given to own-station, own-station (svasthāna-svasthāna). The remainder is divided by numerate and the major part there of is

$$\begin{array}{l} \parallel \\ = 4 \\ 4 \mid 65 = \text{ ३ } \mid 6 \mid 5 \mid 5 \mid 5 \end{array}$$

Which is to be given to the vihāravat svasthāna (own-station) and the remainder is divided by numerate the major part there of is

$$\begin{aligned} & \parallel \\ & = 4 \\ & 4 \mid 65 = 7 \mid 6 \mid 5 \mid 5 \end{aligned}$$

Which is to be given to the pathos-extrication (vedanā samudghāta).

The remainder one part is as

$$\begin{aligned} & \parallel \\ & = 1 \\ & 4 \mid 65 = 7 \mid 6 \mid 5 \mid 5 \mid 5 \end{aligned}$$

which is to be given to the affection extrication (kaṣāya samudghāta)

There the first, second set is multiplied by numerate cube-finger (ghanāṅgula) quarter (kṣetra), we get the own station own-station (svasthāna-svasthāna) quarter (kṣetra) as

$$\begin{aligned} & \parallel \\ & = 4 \mid 6 \mid 7 \\ & 4 \mid 65 = 7 \mid 6 \mid 5 \end{aligned}$$

The vihāravat sva sthāna (own station) quarter (kṣetra) is as

$$\begin{aligned} & \parallel \\ & = 4 \mid 6 \mid 7 \\ & 4 \mid 65 = 7 \mid 6 \mid 5 \mid 5 \end{aligned}$$

Again the third fourth set is multiplied by four times numerate cube-finger (ghanāṅgula) getting the quarter (kṣetra) of pathos-extrication (vedanā samudghāta) as

$$\begin{aligned} & \parallel \quad 6 \quad 7 \quad \quad \quad 9 \\ & = 4 \quad \quad \quad 2 \\ & 4 \mid 65 = 7 \mid 6 \mid 5 \mid 5 \mid 5 \mid 1 \end{aligned}$$

and the affection-extrication (kaṣāya samudghāta) quarter (kṣetra) is as

$$\begin{aligned} & \parallel \\ & = 1 \quad 6 \quad 7 \quad 1 \quad 9 \\ & 4 \mid 65 = 7 \mid 6 \mid 5 \mid 5 \mid 5 \quad 2 \end{aligned}$$

Again the divine-being set of the Sanatkumāra Māhendra is universe-line (jagacchreṇi) as divided by own eleventh root (gyārahavārṇ mūla) as $\overline{11}$

ASG p. 167 This is divided by numerate the major part there of is

$$\begin{aligned} & \overline{11} \mid 4 \\ & 5 \end{aligned}$$

is to be given to own station own station (svasthāna-svasthāna). The major part thereof of the remainder is given by

$$\begin{aligned} & \overline{11} \mid 4 \\ & 5 \mid 5 \end{aligned}$$

which is to be given to vihāra vat own station (svasthāna) the majar part of the remainder is

$$\begin{array}{r} \overline{11} \mid 4 \\ 5 \mid 5 \mid 5 \end{array}$$

which is to be given to pathos extrication (vedanā-samudghāta) the major part of the remainder is as

$$\begin{array}{r} \overline{11} \mid 4 \\ 5 \mid 5 \mid 5 \mid 5 \end{array}$$

which is to be given to affection extrication (kaṣāya-samudghāta). The remaining one part is as

$$\begin{array}{r} \overline{11} \mid 1 \\ 5 \mid 5 \mid 5 \mid 5 \end{array}$$

which is to be given to transformable-extrication (vaikriyika samudghāta) when this is multiplied by numerate cube-finger (ghanāṅgula) we get the quarter (kṣetra) of transformable - extrication (vaikriyika-samudghāta) as

$$\begin{array}{r} - 6 \text{ ३} \\ 11 \mid 5 \mid 5 \mid 5 \mid 5 \end{array}$$

Again the divine-set (deva rāṣi) of Sanatkumāra māhendra is $\overline{11}$ which is divided by innumerate part of pit (palya), getting the measure of set of bios dying set every instant as

$$\begin{array}{r} \overline{11} \text{ pa} \\ \partial \end{array}$$

when this is divided by the same, the major part there of is the measure of the set of bios in transmigration-motion as

$$\begin{array}{r} 1\text{—} \text{—} \\ - \text{ pa} \\ \partial \\ 11 \text{ pa pa} \\ \partial \partial \end{array}$$

Note that 11 should have been placed in the next row for correct value in ASG

When this is divided by that very amount, we get the major part there of is the measure of the set of bios dying (māraṇāntika) as

$$\begin{array}{r} 1\text{—} \text{—} 1\text{—} \text{—} \\ - \text{ pa pa} \\ \partial \partial \\ 11 \text{ pa pa pa} \\ \partial \partial \partial \end{array}$$

When this set is divided by that very amount, one part thereof give the measure of distant-dying-bios-set (dūra-māraṇāntika jīva-rāṣi), as

$$\begin{array}{r} 1\text{—} \text{—} 1\text{—} \text{—} \\ - \text{ pa pa 1} \\ \partial \partial \\ 11 \text{ pa pa pa pa} \\ \partial \partial \partial \partial \end{array}$$

This is divided by that very amount, getting the measure of bios-set seated on transmigration-beam (upapāda-daṇḍa) as

$$\begin{array}{r}
 1\text{—} 1\text{—} \\
 - \text{ pa pa} \\
 \partial \partial \\
 11 \text{ pa pa pa pa pa} \\
 \partial \partial \partial \partial \partial
 \end{array}$$

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Here by numerate part of square finger (pratarāṅgula) is multiplied three rājūs getting

$$\begin{array}{c}
 7 \mid 3 \mid 4 \\
 \text{३}
 \end{array}$$

Whent eh set of distant-death bios-set (dūra-māraṇātika-jīvarāśi) is multiplied by this set, we gets the measue of its quarter (kṣetra) as

$$\begin{array}{r}
 1\text{—} 1\text{—} \\
 - \text{ pa pa } - \mid 3 \mid 4 \\
 \partial \partial 7 \text{ ३} \\
 11 \text{ pa pa pa pa pa} \\
 \partial \partial \partial \partial \partial
 \end{array}$$

Further three rājūs as multiplied by nuemrate square-finger (pratarāṅgula) is

$$7 \mid 3 \mid 4 \text{ ३}$$

When the bios-set stationed at transmigration-beam (upapada-daṇḍa) is multiplied by it, we get its quarter (kṣetra) as

$$\begin{array}{r}
 1\text{—} 1\text{—} \\
 - \text{ pa pa } \text{—————} \\
 \partial \partial 7 \mid 3 \mid 4 \text{ ३} \\
 11 \text{ pa pa pa pa pa} \\
 \partial \partial \partial \partial \partial
 \end{array}$$

Note that in ASG everywhere the – appears in the line above the first row, hence here it has been showed correct. Actually it must be in the line of the first row in ASG.

Again the quarter (kṣetra) of the phosphorescent the assimilative (taijasa āhāraka) is similar to that of phosphorescent-complex (tejoleśyā) as ३ ॥ 6 ॥ ३ ॥ ३ ॥ 6 ॥ ३

Again we state about this on the topic of white complex (śukla-leśyā) :-

The bios-set with white complex (śukla-leśyā) is innumerate part of pit (palya) as

$$\begin{array}{c}
 \text{pa} \\
 \partial
 \end{array}$$

This is divided by five the digital symbol for the numerate, and the major part thereof is

$$\begin{array}{c}
 \text{pa } 4 \\
 \partial \quad 5
 \end{array}$$

which is to be given to own-station own-station (svasthāna svasthāna).

The major part thereof of the remainder is as

$$\partial \quad 5 \mid 5$$

which is to be given to vihāra vat own station (svasthāna).

The major part of the remainder is as

$$\begin{array}{l} \text{pa } 4 \mid \\ \partial \ 5 \mid 5 \mid 5 \end{array}$$

which is to be given to pathos-extrication (vedanā samudghāta).
The major part of the remainder is as

$$\begin{array}{l} \text{pa } 1 \ 4 \\ \partial \ 1 \ 5 \mid 5 \mid 5 \end{array}$$

which is to be given to affection-extrication (kaṣāya-samudghāta).
The remainder one part thereof is as

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$$\begin{array}{l} \text{pa } 1 \ 1 \\ \partial \ 1 \ 5 \mid 5 \mid 5 \end{array}$$

which is to be given to transformable-extrication (vaikriyika-samudghāta). There the first set is multiplied by numerate part of cube-finger (ghanāṅgula) [Note that in ASG innumerate is written], getting quarter (kṣetra) of own-station, own station (svasthāna-svasthāna) as

$$\begin{array}{l} \text{pa } 1 \ 4 \mid 6 \\ \partial \ 1 \ 5 \mid 7 \end{array}$$

The third fourth set is multiplied by four and half times of numerate part of cube-finger (ghanāṅgula) getting the quarter (kṣetra) of pathos-extrication (vedanā samudghāta), as

$$\begin{array}{l} \text{pa } 1 \ 4 \qquad 6 \mid 9 \\ \partial \ 5 \mid 5 \mid 5 \mid 7 \mid 2 \end{array}$$

This when divided by numerate five gives the quarter (kṣetra) of the affection-extrication (kaṣāya-samudghata) as

$$\begin{array}{l} \text{pa } 1 \quad 4 \mid \quad 6 \quad 9 \mid \\ \partial \ 1 \ 5 \mid 5 \mid 5 \mid 5 \mid 7 \mid 2 \end{array}$$

Again the second set is multiplied by cube-finger (ghanāṅgula) we get the quarter (kṣetra) of vihāravat-svasthāna (own station) as

$$\begin{array}{l} \text{pa } 1 \ 4 \mid 6 \mid 7 \\ \partial \ 1 \ 5 \mid 5 \end{array}$$

Again when the fifth set is multiplied by numerate cube-finger (ghanāṅgula), we get the quarter (kṣetra) of transformable-extrication (vaikriyika-samudghāta) as

$$\begin{array}{l} \text{pa } 1 \ 6 \mid 7 \\ \partial \ 1 \ 5 \mid 5 \mid 5 \mid 5 \end{array}$$

Again the kṣetra as six rājūs in length, innumerate part of linear-finger (sūcyaṅgula) in breadth and height is

2	2
∂	∂

7 6

Its value is six rājus as multiplied by numerate part of square finger (pratarāṅgula) as

$$\begin{array}{r} - \mid 6 \mid 4 \\ 7 \quad \quad 7 \end{array}$$

[Note that – has not been properly place in the first row in ASG]

When the numerate bios set is multiplied by this amount we get the quarter (kṣetra) of death-extrication (māraṇātika-samudghāta) as

$$\begin{array}{r} 7 \mid 7 \mid 6 \mid 4 \\ 7 \end{array}$$

[Note that ASG may be corrected about position of 6 and 7]

Again the quarter (kṣetra) of the phosphorescent assimilating (taijasa-āhāraka) is similar to that of the pink-complex (padma-leśyā) as 7 6 7 7 6 7 .

Again, in respect of the omniscient-extrication (kevalī samudghāta) the quarter (kṣetra) is slightly less than fourteen rājūs in height and twelve yojanas in diameter of the right circular cylinder. Its volume is found out by the formula, 'vāsottiguṇo pariḥ,' etc., and converting the yojanas into aṅgulas, as

$$\begin{array}{r} 12 \mid 3 \mid 12 \mid 7 \mid 14 \\ 4 \end{array}$$

which is universe-line (jagaśreṇi) as multiplied by two hundred sixteen times the square-finger (pratarāṅgula) point-set (pradeśa-rāśi) as – 4 216 . This is multiplied by forty living beings getting the stationed-beam-quarter (sthita daṇḍa kṣetra) as – 4 8640 . When this is multiplied by nine getting the quarter (kṣetra) of upaviṣṭa beam as – 4 77760 .

Again the volume of the quarter (kṣetra) slightly less than fourteen rājūs in length, seven rājūs in breadth, and twelve finger (aṅgula) in height is twenty-four times the universe-square (jaga-pratara) as multiplied by linear-finger (sūcyaṅgula) as = 2 960 . Three times as much as this is that of the upaviṣṭa as given by = 1 2 2880 .

Again slightly less than fourteen rājū in length broad as universe (loka) along the east-west. There the upper side (mukha) is one rājū, 7 1, the base (bhūmi) is seven rājūs as 7 7 . On adding we get eight rājūs, 7 8 . Half of this is four rājūs, 7 4 . This is multiplied by the number of terms (gaccha), seven rājūs, getting quarter (kṣetra) as four square rājūs (pratara rājūs) as 7 4 happens to be that of lower-universe (adholoka).

Again upper side (mukta) is one rājū, 7 1, the base (bhūmi) is five rājūs, 7 5, on adding we get six rājūs, 7 6, half of this is three rājūs 7 3 . This is multiplied by the number of terms

(gaccha), three and half rājūs, ie., by $\frac{7}{2}$ getting

$$\begin{array}{r} = 2 \mid 1 \\ 7 \mid 7 \mid 2 \end{array}$$

which on cancellation is

$$\begin{array}{r} = 3 \\ 7 \mid 2 \end{array}$$

Multiplying this by two, we get the volume of the quarter (kṣetra) of the upper universe (ūrdhva loka) as

$\overline{7} \mid 3$. When the quarter (kṣetra) of the lower-universe (adho-loka) and upper universe (ūrdhva loka) are added, the quarter (kṣetra) becomes equal to universe-square (jagatpratara) as $=1$. This is multiplied by height of twelve fingers (aṅgulas) and again multiplying by the measure of the bios as forty, we get four hundred and eighty linear-finger (sūcyaṅgula) as are to multiplied the universe square (jagatpratara). This multiplication gives the quarter (kṣetra) as area of the door facing the utara, as $=2 \mid 480$. This is universe-square (jagatpratara) as multiplied by two and four hundred and eighty as described above.

Thrice as much is that of the upaviṣṭa as $=2 \mid 1440$.

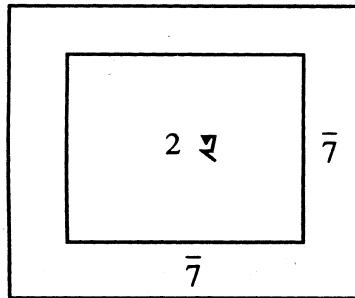
Now in order to subtract the quarter (kṣetra) of the innumerate part of universe (loka) of the air-envelop (vāta-valaya), the universe (loka) is divided by innumerate and multiplied by innumerate as reduced by unity getting the quarter (kṣetra) of the square (pratara) as

$$\begin{array}{c} 1-c \\ \equiv \frac{\partial}{\partial} \mid \\ \partial \end{array}$$

Again the quarter (kṣetra) of universe-filling (loka-pūraṇa) is the whole universe (loka) as $\equiv 1$

Now the description about the touch (sparśana) is given. There in that chapter, the touch (sparsa) corresponding to the five terms (padas) own station own station (svasthāna svasthāna), pathos (vedanā), affection (kaṣāya), death (māraṇāntika), transmigration (upapāda) of the bios with black-complex (krṣṇa-leśyā) is the whole universe (loka) as $\equiv 1$.

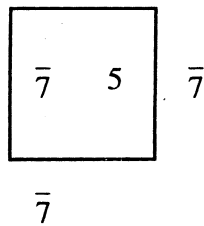
ASG p. 171 Again the horizontal universe (tiryaḡ loka) is one rājū in length and breadth, and numerate linear-finger (sūcyaṅgula) in height as follows in figure.



Its volume is square-rājū (pratara-rajju) as multiplied by numerate linear-finger (sūcyaṅgula) measure of touch of the vihāravat svasthāna (own station) as $\overline{49} \mid 2 \text{ ३}$

Note that in ASG, proper placing of the first row is wrong at most of the places.

Again the quarter (kṣetra) one rājū in length and breadth, as well as five rājūs in height as



has volume five cubic rājūs (ghana rājūs) and this much is the touch of the transformable (vaikriyika)

as $\equiv 5$
343

Similar is to known about that of the blue (nīla) and the, grey (kapota).

In order to find out the touch (sparśa) of own-station own-station (svasthāna, svasthāna) corresponding to the phosphorescent complex (teja leśyā), the area of the Lavaṇoda, kāloda and svayambhū ramaṇa seas have been subtracted from the rajju-square (rajju-pratara) quarter (kṣetra). This has been given in the commentary and there the symbolism is simple.

The accomplished own-station own-station (svasthāna svasthāna) has the touch given by fifty-oneth part of the universe-square (jagapratarā) as multiplied by numerate linear-finger (sūcyaṅgula), as

$$\equiv \frac{2}{51}$$

Now in respect of the vihāravat own-station (svasthāna) pathos (vedanā), affection (kaṣāya), transformable extrication (vaikriyika samudghāta), the quarter (kṣetra) is slightlyless than eight by fourteenth part as

$$\frac{8}{14}$$

The symbol for slightlyless is –.

There is one counting-rod (śalākā) of fourteen cubic-rājus, then how many would there be of eight cubic-rājus. This way, the rule of three sets (trairāśika) gives eight by fourteenth part see next page for table. In respect fo the death (māraṇāntika), the touch (sparśa) amounting to slightly less than nine-fourteenth part as

TRANSCRIPTION

pramāṇa (measure)	phala (fruit)	icchā (requisition)
$\equiv \frac{14}{343}$	śa 1	$\equiv \frac{8}{343}$

In respect of the phosphorescent-assimilative (taijasa-āhāraka), the touch (sparśa) is numerate cubic finger (ghanāṅgula) as $\frac{6}{28}$. In respect of the transmigration (upapāda) it is slightlyless than one and half times the fourteenth part as $\frac{3}{28}$

Here divisor of three is twenty-eight.

ASG p. 172 Again in respect of the pink-complex (padma-leśyā) corresponding to own-station own-station (svasthāna svasthāna), the touch (sparśa) as before is $\equiv \frac{2}{51}$

In respect of the vihāra vat-own station (sva sthāna), pathos (vedanā), affection (kaṣāya), transformable (vaikriyika), death-extrication (māraṇāntika-samudghāta), it is slightly less than fourteenth part of eight as $\frac{8}{14}$

In respect of the phosphorescent-assimilative (taijasa-āhāraka), it is numerate cubic fingers (ghanāṅgula) as $\frac{6}{28}$. Again in respect of white complex (śukla-leśyā), the touch (sparśa)

corresponding to own-station own-station (svasthāna-svasthāna) it is like phosphorescent complex as (tejo leśyā) as $= 2 \text{ ॐ}$
51

Corresponding to the vihāravat own-station (svasthāna) pathos (vedanā), affection (kaṣāya), transformable (vaikriyika)-death extrication (māranāntika-samudghāta) it is slightly less than fourteenth part of six as
 $\frac{6}{14}$

In respect of the omniscient-extrication (kevalī-samudghāta) it is universe-line (jagacchreṇī) as multiplied by numerate square-finger (pratarāṅgula) as $- 4 \text{ ॐ}$. This is doubled giving that of the stationed upaviṣṭa-beam (sthita-upaviṣṭa-deṇḍa) as
 $- 4 \text{ ॐ} \mid 2 \mid - 4 \text{ ॐ} \mid 2$.

When the universe-square (jagapratara) is multiplied by numerate linear-finger (sūcyaṅgula) we get $= 2 \text{ ॐ}$ which is doubled, getting that of the upaviṣṭa door (kapāṭa), stationed facing east and north as
 $= 2 \text{ ॐ} 2 \mid = 2 \text{ ॐ} 2 \mid = 2 \text{ ॐ} 2 \mid = 2 \text{ ॐ} 2$

That of square universe (pratara-loka) has is that equal to the quarter (kṣetra) of the whole as
 $\frac{1}{4}$

pra ॐ lo touch (sparśa)
 $\equiv \quad \equiv$
ॐ

Now regarding the symbolism in the time chapter we have :

nāma (name)	kr̥ṣṇa (black)	nīla (blue)	kapota (grey)	pita (yellow)	paḍma (pink)	śukla (white)
utkr̥ṣṭa kāla (maximal period)	$2 \text{ ॐ} 2$ sā 33	$2 \text{ ॐ} 2$ sā 17	$2 \text{ ॐ} 2$ sā 7	$2 \text{ ॐ} 2$ sā 5 - 2	$2 \text{ ॐ} 2$ sā 37 2	$2 \text{ ॐ} 2$ sā 33
jaghanya kāla	2 ॐ	2 ॐ	2 ॐ	2 ॐ	2 ॐ	2 ॐ

ASG p. 173

Here regarding the maximal, seas (sagaras) thirty three, seventeen, seven, slightly less two and half, eighteen and half, thirty three, in the second row, and in the first row above is two inter muhūrta in excess may be known. Regarding the minimal, symbol of intermuhūrta (antar-muhūrta) may be known.

Again in the chapter on interval (antara) the symbolism of the interval (antara) of the black (kr̥ṣṇa) etc. complexes (leśyās) is as follows:

nāma name	kr̥ṣṇa (black)	nīla (blue)	kapota (grey)	pīta (yellow)	padma (pink)	śukla (white)
utkr̥ṣṭa antara (maximal difference)	2 ५ 10 pū ko va – 8 sā 33	2 ५ 8 pū ko va – 8 sā 33	2 ५ 6 pū ko va – 8 sā 33	2 ५ 6 va 1000 ५ pu = pa = 2 ḍ	2 ५ 5 va 1000 ५ pa ḍ pu = pa = sā 2 2 ḍ	2 ५ 7 va 1000 ५ pa ḍ pu = pa = sā 2 2 ḍ
jaghanya antara minimal difference	2 ५	2 ५	2 ५	2 ५	2 ५	2 ५

Here corresponding to black (kr̥ṣṇa), etc., complexes (leśyās), the interval (antara) is to be known as thirty three seas (sāgaras) along with crore pūrva years as reduced by eight, in excess of ten, eight, six intermuhūrta (antar-muhūrta).

Regarding the yellow (pīta) the interval (antara) is to be known as matter-cyclic change (pudgala parivartana), innumerate part of trail (āvalī) in excess of six intermuhūrta (antar-muhūrta) and numerate thousand years. When this is added by innumerate part of pit (palya) as increased by two seas (sāgaras), we get the interval (antara) corresponding to the pink (padma) and the white (śukla). Speciality is so much that corresponding to the pink (padma) there is excess of five and corresponding to the white (śukla) there is excess of seven a inter-muhūrta (antar muhūrta),

Again corresponding to comparability (alpabahutva) chapter, the number of the bios is to be known as in the number chapter.

nāma (name)	kr̥ṣṇa (black)	nīla (blue)	kapota (grey)	pīla (yellow)	paḍma (pink)	śukla (white)
pramāṇa (measure)	1 13 – 3	13 – 1 3	13 – 11 3	∅ ∅ ॐ	∅ ∅	∅

ASG p. 174 Now the symbolism is stated in the chapter on the accomplishable (bhavya) wayward

SYMBOLISM ON THE ACCOMPLISHABLE WAY-WARD (BHAVYA MĀRGAṆĀ)

Regarding the number of bios, the non accomplishable set (abhavya rāṣi) is minimal peripheral infinite (jaghanya yukta ananta) as ja ju a . The accomplishable set (bhavya rāṣi) is slightly less than the mundane set (saṁsārī rāṣi) as 13 – .

Again about the cyclic-changes (parivartanas); that of the matter-cyclic-change (pudgala parivartana), the non-accepted (agr̥hīta) reception (grahana) period is infinite; and infinite times as much is the mixed reception (miśra grahaṇa) kāla, and infinite times the preceding is the accepted (gr̥hīta) reception (grahana) period. Infinitesimal part of this in excess is the minimal matter-cyclic-change period (jaghanya pudgala parivartana kāla). Infinite times the preceding is the maximal accepted (gr̥hīta) reception (grahana) period. Infinitesimal part of the preceding in excess is the maximal matter-cyclic-change period (utr̥ṣṭa-pudgala parivartana kāla), where the symbol for infinite is kha and in order to add infinitesimal part, the multiplication of infinite plus one and divisor of infinite is done. This the symbolism is

nāma (name)	agr̥hīta (non- admitted)	miśra (mixed)	jaghanya gr̥hīta (minimal admitted)	jaghanya pudgala parivartana (minimal matter- change)	utr̥ṣṭa gr̥hīta (maximal admitted)	utr̥ṣṭa pudgala parivartana (maximal matter change)
kāla	kha	kha kha	kha kha kha	1– kha kha kha kha kha	1– kha kha kha kha kha kha	1– 1– kha kha kha kha kha kha kha

Again symbolism as small circle or zero (śūnya) for the nonaccepted (agr̥hīta), cross or swan-foot (haṁsa pada) for the mixed, one for the accepted (gr̥hīta), and for infinite times it is to be written two times. Thus the matter-cyclic-change (pudgala parivartana) has the following sequence.

0 0 x	0 0 x	0 0 1	0 0 x	0 0 x	0 0 1
x x 0	x x 0	x x 1	x x 0	x x 0	x x 1
x x 1	x x 1	x x 0	x x 1	x x 1	x x 1
1 1 x	1 1 x	1 1 0	1 1 x	1 1 x	1 1 0

Special description of this may be known from GJK commentary. Again there is no special symbolism in quarter (kṣetra) time (kāla) and birth-to-death (bhava) cyclic changes.

Again corresponding to cyclic-change (parivartana) in phase (bhāva), there is the symbol Δ

|

Here to be symbolism is to be known corresponding to life-time (sthiti).

ASG p. 175

sthiti (life-time)	Δ antah ko 2 	Δ 1 	Δ 2 	madhya sthiti (middle life-time)	Δ 30 ko 2 sāgara
kaṣāyādhyavasāya sthāna (affection advenience stations)	jaghanya oo \equiv ∂ (minimal)	oo \equiv ∂	oo \equiv ∂	oo	oo \equiv ∂ $\bar{\partial}$
anubhāga bandhā dhyavasāya sthāna (energy-bond- advenience stations)	jaghanya oo \equiv ∂ oo \equiv ∂ (minimal)	oo \equiv ∂ oo \equiv ∂	oo \equiv ∂ oo \equiv ∂	oo	oo \equiv ∂ oo \equiv ∂ $\bar{\partial}$
yoga-sthāna volition-station	jaghanya oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$ <i>minimal</i>	oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$	oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$	oo	oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$ oo $\bar{\partial}$

Note the difference in the above table slightly different from that in ASG in writing of $\bar{7}$ and $\bar{\partial}$ at the and of the last row. In GJK, vol. 2, p. 789, more extension of the above table is available upto the maximal, ending with it. In it the term $\bar{7}$ does not occur.

In the above, minimal life-time (sthiti) is inter-crore squared (antaḥ koṭākāṭi). Hence the middle intermediate life time is shown after one, two instants more through the symbols as shown. In the end the maximal life-time (sthiti) relative to knowledge-screening (jñānāvaraṇa) is shown as symbols as thirty crore squared seas (sāgaras). Again corresponding to every one of life time (sthiti) type (bheda), there is change of innumerate universe (asaṁkhyāta loka) of affection impure phase (kaṣāya bandhā dhyavasāya) station. Again at every one of affection-impure-phase (kaṣāya-adhyavasāya) stations (sthānas) there is change of innumerate universe (asaṁkhyāta-loka) measure of energy-impure phase (anubhāga impure phase) stations (sthānas).

Again at every one of the energy-impure-phase (anubhāga-adhyavasāya) stations, there is change of innumerate part of universe-live (jagacchreṇi) measure of volition stations (yoga sthānas). There the symbolism is $\equiv \partial$ for the innumerate universe (asaṁkhyāta loka), and $\bar{\partial}$ for innumerate part of universe-line (jagacchraṇi). There, writing a symbol two times etc., should be known to be as changing many times corresponding to every one of the life-time (sthiti). Further, every where, ahead of the minimal, or else where, small circles (vindis) as symbols have been given to fill up the gap of the intermediate types.

SYMBOLISM ON SERENITY WAY-WARD (SAMYAKTVA-MĀRGAṆĀ)

Now symbolism on the chapter of serenity-way-ward-station (samyaktva-mārgaṇā-sthāna) is described. There the symbolism corresponding to bios's immersion (avagāhanā) is as follows :

TRANSCRIPTION

nāma (name)	jaghanya śārīra kī	madhya śārīra kī	utkr̥ṣṭa śārīra matsya ke	jaghanyādi vedanā samudghāta vāle kī	utkr̥ṣṭa vedanā samudghāta vāle kī	jaghanyādi māraṇāntika samudghāta vāle kī	utkr̥ṣṭa māraṇāntika samudghāta vāle kī	loka pūraṇa kī
pradeśa pramāṇa (point or particle- measure))	nigoda jiva kai 6 ∅	1- 2- 6 6 0 0 0 ∅ ∅ ∅	6 7 7 7 7 7 7 6 7 7 7 7 7 7	1 ————— 6 7 7 7 7 7 7 0 0 0 0 6 7 7 7 7 7 7 3	6 7 7 7 7 7 7 3 6 7 7 7 7 7 7 3	1 ————— 6 7 7 7 7 7 7 3 0 0 0 6 7 7 7 7 7 7 3 0 0 0	- 15 4 7 7 2	≡

Note that in the last but one column, in ASG 7 is not written properly. The – has to be placed in the first line.
ASG p. 176

There the immersion (avagāhanā) of minimal body is innumerate part of cube-finger (ghanāṅgula) as 6

∅

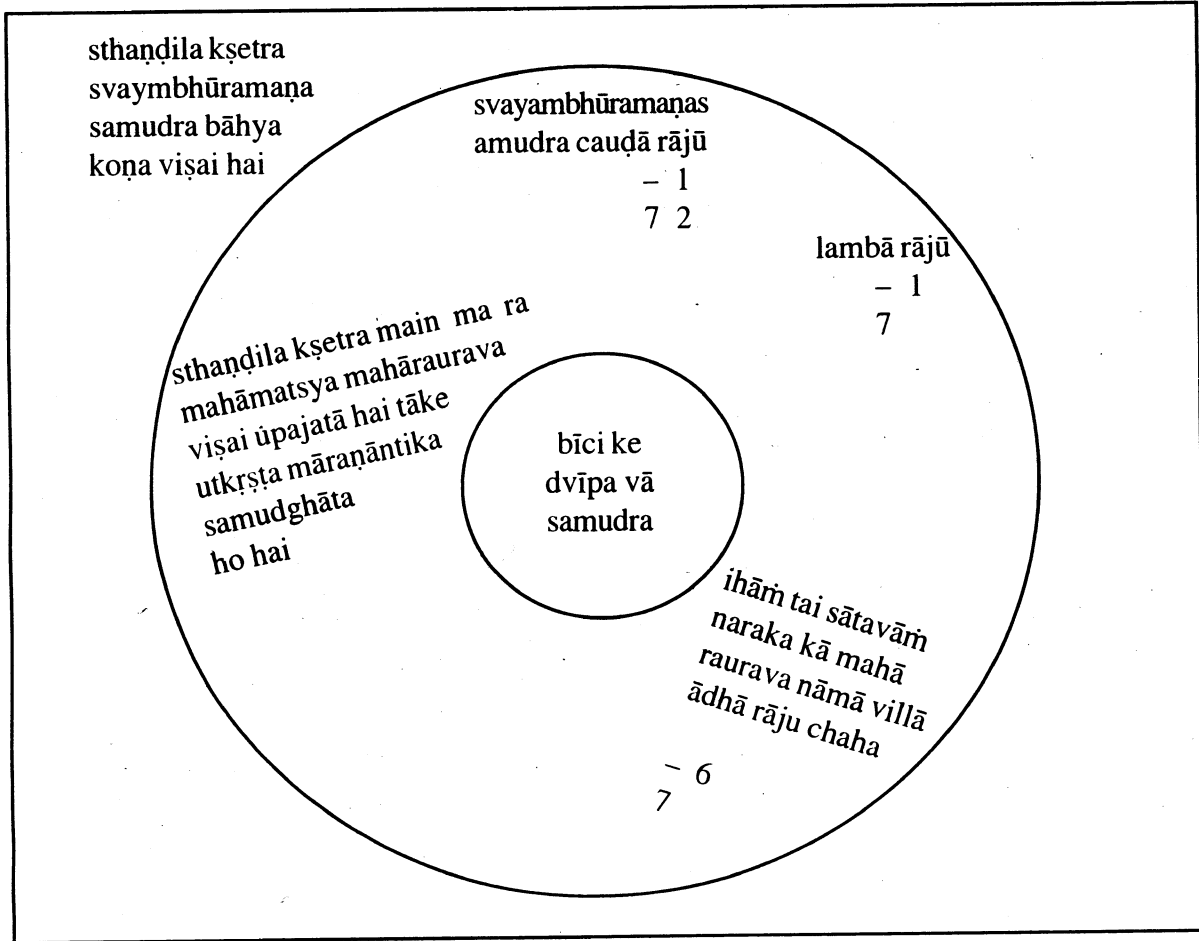
The intermediate immersion (avagāhanā) are in excess of one, two etc. points (pradeśas). Again the immersion (avagāhanā) of maximal body is having numerate multiplied fruit times, and one more point (pradeśa) etc., in excess of it is the immersion (avagāhanā) of pathos-extrication-immersion (vedanā-samudghāta-avagāhanā), thrice the immersion (avagāhanā) of maximal body is the maximal-pathos-extrication immersion (utkr̥ṣṭa-vedanā-samudghāta-avagāhanā), one point (pradeśa) etc., in excess of the preceding is the death-extrication-immersion (māraṇāntika-samudghāta-avagāhanā). When seven and half rājus, – 15

7 2

is multiplied by numerate square-finger (pratarāṅgula), 4 7, the maximal immersion (avagāhanā) of death is obtained. Immersion of universe (loka) filling up is of universe (loka) measure.

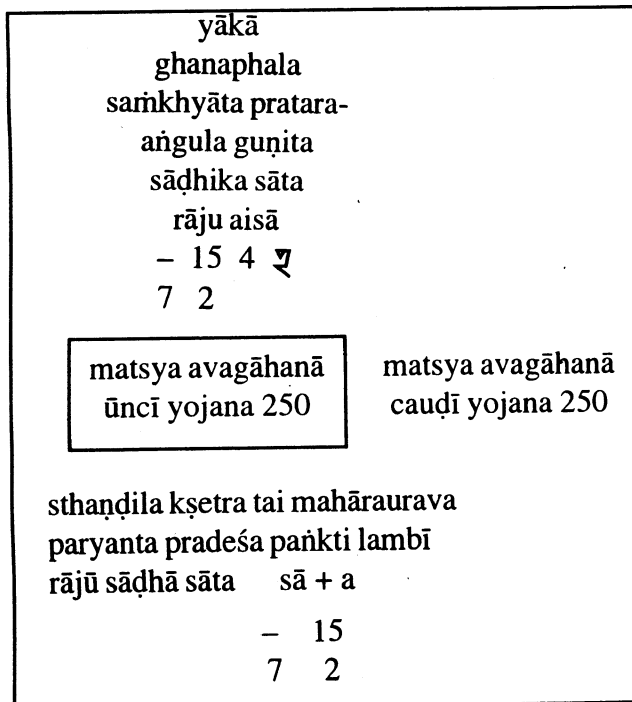
Again, here, corresponding to the maximal death-immersion (māraṇāntika-avagāhanā) sthaṇḍila quarter (kṣetra) has the following structure

TRANSCRIPTION



Again the structure of quarter (kṣetras) of death-beam (māraṇāntika daṇḍa) of the fish (matsya) is as follows :

TRANSCRIPTION



Note that in ASG $\bar{7}$ has not been proper placed, as it should have been. Here corrected form is given.

ASG p. 177

Corresponding to the number of fluents (dravyas), the bios-set according to fluent-measure (dravya māna) is as 16. Into this multiplication by infinite once, twice, thrice respectively gives the matter (pudgala), behavioral time (vyavahāra kāla), non-universe-space (alokākāśa) are to be known. Again the aether (dharma), anti-aether (adharma), universe space (lokākāśa) and set of one-one deterministic (mukhya) time (kāla), each of them is to be known one universe (loka) in measure. Relative to the

TRANSCRIPTION

nāma (name)	jīva (bios)	pudgala (measure)	dharma (aether)	adharma (anti-aether)	lokākāśa (universe-space)	mukhya kāla (deterministic time)	vyavahāra kāla (behavioral time)	alokākāśa non-universe-space
dravya māna (fluent measure)	16	16 kha	1	1	1	1	16 kha kha	16 kha kha kha
kṣetra māna (quarter measure)	≡ kha	≡ kha kha	≡	≡	≡	≡	≡ kha kha kha	≡ kha kha kha kha
kāla māna (time measure)	a kha	a kha kha	ka ∂	ka ∂	ka ∂	ka ∂	a kha kha kha	a kha kha kha kha
bhāva māna (phase-measure)	ke kha kha kha khakha kha kha	ke kha kha kha kha kha kha	0 ∂	0 ∂	0 ∂	0 ∂	ke kha kha	ke kha

quarter-measure (kṣetra māna) the bios (jīva), matter (pudgala) behavioral time (vyavahāra kāla), non-universe-space (alokākāśa) are respectively to known as universe (loka) as multiplied by one, two, three, four times by infinite. The aether (dharma), anti-aether (adharma), universe-space (lokākāśa) and deterministic (mukhya) time (kāla), each is to be known as of universe (loka) measure as ≡.

Relative to time-measure (kāla māna), the bios (jīva) matter (pudgala), behavioral time (vyavahāra kāla), non-universe-space (alokākāśa) are each respectively are to be known to be obtained on multiplying the past-time (atīta kāla) by one, two, three, four times by infinite. The aether (dharma), anti-aether (adharma), universe space (lokākāśa), and deterministic-time (mukhya-kāla) are each to be known as innumerate, ∂, times the kalpa period.

Relative to the phase-measure (bhāva māna) the bios (jīva) matter (pudgala), behaviorial-time (vyavahāra-kāla) and non-universe-space (alokākāśa) are respectively infinitesimal part (anantavām bhāga) of omniscience (kevalajñāna) four times, three times, two times and once. The aether (dharma), anti aether (adharma), universe space (lokākāśa), and deterministic time (mukhya kāla) are to be known is innumerate part of the types of clairvoyance knowledge (avadhi jñāna). Their structure is given as above:

ASG p. 178**TRANSCRIPTION**

Again here relative to quarter (kṣetra), time (kāla), phase (bhāva) measures, the measures are obtained through the rule of three sets (trairāśika) as follows :

pramāṇa (measure)	phala (fruit)	icchā (requisition)	labdha (acquisition)	pramāṇa (measure)	phala (fruit)	icchā (requisition)	labdha (aquisition)
≡	śa 1	16	śa 16 ≡	śa 1	≡	śa 16 ≡	≡ kha
a	śa 1	16	śa 16 a	śa 1	a	śa 16 a	a kha
pa ३	śa 1	≡	śa ≡ pa ३	śa 1	ka	śa ≡ apavartana kīye pa ∅ aisā ३	ka ∅
≡	śa 1	≡ ∅	śa ≡ ३ ≡	śa ∅	∅	śa 1	0 ∅
16	śa 1	ke	śa ke 16	śa kha	ke	śa 1	ke kha kha kha kha

Here symbolism for bios-set (jīva rāśi) is 16 , for infinite (ananta) is kha, for past time (atīta kāla) is a , for innumerate (asamkhyāta) is ∅ , for kalpa period (kalpa kāla) is ka , for the types of the clairvoyance (avadhi) as the first alphabet of its Prakrit script is O , for śalākā is śa, for numerate part of pit (palya) is to be known pa
३

Again in the description of the matter variforms (pudgala vargaṇās) of twenty three classes (jāti), the particles variform (aṇu-vargaṇā) is in form of one, one ultimate particles (paramāṇu). The numerate particle variform (samkhyātāṇu vargaṇā) is in form of two, two ultimate particles (paramāṇus). Again the intermediate are in form of three, three ultimate particles (paramāṇus). The maximal is in form of maximal numerate ultimate-particles (paramāṇus). Thence the symbolism of maximal numerate is 15. Again the innumerate-particle-variform (asamkhyātāṇu-vargaṇā) is in form of minimal, minimal innumerate particle form, whose symbolism is 16 as increased by unity, as $\frac{1}{16}$ etc., forms. The maximal maximal innumerate-particle (asamkhyāta aṇu) is in form symbolized as 255.

Again the minimal of the infinite particle variform (anantāṇuvargaṇā) is an ultimate particle (paramāṇu) in excess, as 256 . And the maximal is infinite times as much as this व

ASG p. 179

Again, the minimal assimilation variform (āhāraka vargaṇā) is an ultimate particle (paramāṇu) in excess of the preceding, and infinitesimal part (anantavāṁ bhāga) in excess of this is the maximal.

Again the non-acceptable (agrāhya) variform (vargaṇā) is in excess of an ultimate particle (faramāṇu) for its minimal, and than for its maximal it is infinite times as much.

Again the minimal of the phosphorescent-variform (taijasa-vargaṇā) is an ultimate-particle (paramāṇu) in excess of the preceding and the maximal is infinitesimal part (anantavāṁ-bhāga) in excess of the preceding.

Again, the minimal of the non-acceptable variform (agrāhga vargaṇa) is in excess of an ultimate-particle (paramāṇu) of the preceding, where as its infinite times is its maximal.

Again the minimal of the language-variform (bhāṣāvargaṇa) its in excess of an ultimate-particle (paramāṇu) of the preceding and the maximal is in excess of infinitesimal part (anantavāṁ bhāga) there of.

Again the minimal of the non-acceptable variform (agrāhya vargaṇa) is in excess of an ultimate-particle (paramāṇu), and infinite times this is its maximal.

Again, the minimal of the mind variform (mano vargaṇa) is in excess of an ultimate-particle (paramāṇu) of the preceding, and its infinitesimal part in excess there of is the maximal.

Again, the minimal of the non-acceptable-variform (agrāhya-vargaṇa) is in excess of an ultimate particle (paramāṇu) of the preceding, and infinite times it is the maximal.

The minimal of the karma finishing (kārmāṇa) variform (vargaṇa) is in excess of an ultimate particle (paramāṇu or aṇu) than the preceding. Its maximal is in excess of infinitesimal part of this.

The minimal of the pole-variform (dhruva-vargaṇa) is in excess of an ultimate particle (paramāṇu) than the preceding. Its maximal is infinite bios-set times this.

The minimal of the vacuum-variform (śūnya-vargaṇa) is in excess of one, and the maximal is infinite-bios-set times this.

In this way sixteen variform (vargaṇas) have been proved. Here one ultimate-particle (paramāṇu-
ar aṇu) has been stated to be in excess, there the symbolism 1— is to be effected above the preceding-
set (pūrva rāśi). Where ever infinite times has been stated, there symbolism kha is to be effected ahead
of the preceding set (pūrva rāśi). Wherever infinitesimal part (anantavāṁ bhāga) has been stated, there
the symbolism for multiplier of infinite as increased by unity, 1 —

kha

is placed ahead of the preceding set (pūrva rāśi). For the symbolism of divisor, symbolism of kha of
infinite is to be placed below. Again, wherever multiplication by infinite-bios-set has been stated, there
16 kha symbolism is to be placed ahead of the preceding set.

Again, the instant-effective-bond (samaya prabaddha) of the mentioned karma finishing (kārmāṇa), as

sa $\bar{\partial}$ $\bar{\partial}$ kha kha

of the each of the body-variform (śarīra vargaṇa) corresponding to the symbolism of the minimal about
the volition way-ward (yoga-mārgaṇa) is multiplied by slightly less than one and half geometric-
regressions (guṇahānis), as 12 — , giving the karma-finishing-particle-multiplet (kārmāṇa-skandha)
inform of state (sattva). When this result is multiplied by infinite times bios-set (jīva-rāśi), as 16 kha ,
than we get the measure of the natural-accumulation (visrasopacaya) of ultimate-particles (paramāṇus).
ASG p. 180 for showing this addition of karma finishing-particle-multiplet (kārmāṇa skandha),
the symbol of one in excess is placed above the multiplier measuring infinite-times the bios-set (jīva-
rāśi), and thus the karma-finishing-particle-multiplet (kārmāṇa-skandha) associated with the natural
accumulation (visrasopacaya) becomes

1—

sa $\bar{\partial}$ $\bar{\partial}$ kha kha 12 — 16 kha
1 —

Note that 1— above 16 kha is shown as 16 kha in the ASG.

Here multiplication by three or three as multiplier is effected for showing acceptance of three
functionals (karmas), one functional karma finishing (karma kārmāṇa) as genetic-coding (nāma),
inheriting (gotra) and pathos (vedanīya), by this particle-multiplet (skandha).

Again for mixing the three sets (rāśi), viz., the age-functional (āyu karma) is the physical-macro
body (audārika śarīra) and phosphorescent body (taijasa śarīra), three vertical times are placed above.
Thus the symbolism of minimal individual variform (jaghanay pratyeka vargaṇa) becomes

1— |||

sa $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 3

Again relative to instant-effective-bond (samaya prabaddha) of all-functional (sarva karma), the total karma-finishing (kārmāṇa) particle-multiplet (skandha) associated with the natural accumulation (visrasopacaya) as mentioned earlier is as

1— 1—
sa $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha In this above expression, 1— is placed as 16 kha in ASG

Here there is acceptance (grahāṇa) of multiplied-functional-part (guṇita-karmāṇsa) bios (jīvas), hence numerical symbolism (aṅka saṁdr̥ṣṭi), as thirty-two, is placed ahead of the alphabet sa for accepting innumerte part times the instant-effective-bond (samaya prabaddha).

Again, two vertical lines are placed above for showing two sets in excess viz., the physical macro (audārika) and the phosphorescent (taijas) particle-multiplet (skandha).

Again there is one particle-multiplet (skandha) of bodies of bios (jīvas) amounting to innumerate part of trail (āvalī), symbol of 8 is placed ahead. On doing this the symbolism of maximal-

$\bar{\partial}$
individual-variform (utkr̥ṣṭa-pratyeka-vargaṇā) is

|| 1—
sa 32 $\bar{\partial}$ $\bar{\partial}$ 12 – 16 kha 8 1—
 $\bar{\partial}$ Note the placing of 1— above 16 kha in ASG is 16 kha

Again the symbol (saṁdr̥ṣṭi) of minimal of pole (dhruva), vacuum (śūnya) variform (vargaṇā) happens to be on placing the symbol of one ultimate-particle (paramāṇu or aṇu) in excess above. And symbol for expressible (vak̥ṣyamāṇa) minimal gross vegetable (nigoda) is to be made as one less above, for getting the maximal.

Again, corresponding to the minimal of gross vegetable (nigoda), two vertical lines are placed above the symbol of earlier mentioned karma-finishing-particle-multiplet (kārmāṇa-skandha), as showing the mixing of two sets, namely, the physical-macro (audārika) and phosphorescent bodies (taijasa śarīras) in form of particle-multiplet (skandha) of three bodies corresponding to a bios (jīva) is.

|| 1—
sa $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha

Note : The same placing also occurs in GJK, pp. 831, et seq, and hence we have followed it.

Note also the placing of $\bar{\partial}$ $\bar{\partial}$ here and above, actually – – are to be in the first row, but implied here as such, and kept not along with sa kha kha etc.,

As per convention the above-should have been written as

|| 1—
sa $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha

Here there is no acceptance of multiplied-functional-part (guṇita-karmāṇsa) bios, hence the numerical symbol of thirty-two digit has not been placed ahead of the alphabet "sa".

Again corresponding to one pulavī, there are innumerate-universe (asaṁkhyāta loka) bodies, then how many bodies would there be for innumerate part of trail (āvalī) of pulavis. Here the rule of three-sets (trairāśika) is applied as

$$\begin{array}{ccc} \text{pra} & \text{pha} & i \\ 1 & \equiv \partial & 8 \\ & & \partial \end{array}$$

then the measure of the bodies come out to be $\equiv \partial 8$
 ∂

Further, the gross vegetable (nigoda) set in a body is $13 -$
 9

This is divided by innumerate universe (asamkhyāta loka) five times, getting $13 -$
 $9 \equiv \partial 5$

the measure of bios, than when there are bodies given by $\equiv \partial 8$
 ∂

how many bios could be found. It this way applying the rule of three-sets (trairāśika), we get

$$\begin{array}{ccc} \text{pra} & \text{pha} & i \\ 1 & 13 - & \equiv \partial 8 \\ & 9 \equiv \partial 5 & \partial \end{array}$$

Then the acquisition-set (labdha rāśi) is following measure of bios :

$$\begin{array}{l} 13 - \equiv \partial 8 \\ 9 \equiv \partial 5 \mid \partial \end{array}$$

Again this is divided by innumerate part of pit (palya), one part there of is the bios-set dying in body of decayed-affection (kṣīna-kaṣāya). For their subtraction on multiplying by innumerate part of pit (palya) as decreased by one, and on dividing by innumerate part of pit (palya), the measure of the bios comes out to be :

$$\begin{array}{ccc} & 1 - \text{c} & \\ 13 - \equiv \partial 8 & \text{pa} & \\ & \partial & \partial \\ 9 \equiv \partial 5 & \text{pa} & \\ & \partial & \end{array}$$

By this we multiply the accumulation (sañcaya) of three bodies corresponding to that one bios, and get the measure of minimal gross vegetable (nigoda) variform (vargaṇā) as follows :

$$\begin{array}{ccc} \text{sa} & \bar{\partial} & \bar{\partial} \text{ kha kha } 12 - 16 \text{ kha} \\ & & \parallel \quad 1 - \\ & & 13 - \equiv \partial 8 \\ & & \partial \\ & & 9 \equiv \partial 5 \\ & & \partial \end{array}$$

ASG p. 182 Again in a mūlaka, etc. body, the measure of the bodies is innumerate part of universe-line (jagacchreṇi) times is the measure of bodies minimal gross vegetables (nigodas) as

$$\begin{array}{c} \equiv \partial \mid 8 - \\ \partial \partial \end{array}$$

Again in a body the measure of bios is

$$\begin{array}{c} 13 - \\ 9 \equiv \partial \mid 5 \end{array}$$

These are mutually multiplied, getting the measure of all bios as

$$\begin{array}{c} 13 - \equiv \partial \mid 8 - \\ 9 \equiv \partial \mid 5 \partial \partial \end{array}$$

The earlier mentioned accumulation (sañcaya) of three bodies corresponding to one bios is multiplied by the preceding amount, and further there is acceptance of multiplied-functional-part (gūṇita karmāñśa) bios here, hence ahead of its the symbol of thirty-two is placed, getting the symbolism for maximal gross vegetable-variform (nigoda vargaṇā) as

$$\begin{array}{c} \parallel \quad 1- \\ \text{sa } 32 \bar{\partial} \bar{\partial} \text{ kha kha } 12-16 \text{ kha} \end{array} \quad \begin{array}{c} 13 - \equiv \partial 8 - \\ 9 \equiv \partial \mid 5 \partial \partial \end{array}$$

See the earlier note above placing of the first four terms here, along with others.

Again the symbol of minimal of vacuum-variform (śūnya-vargaṇā) happens to be on placing one in excess above it.

Again when symbol of one less is placed above the symbol of expressed minimal five vegetable-variform (nigoda-vargaṇā), then we get the symbol of its maximal.

Now corresponding to the minimal of the fine vegetable variform (nigoda-vargaṇā) the measure of bodies of the maximal gross vegetable-variform (nigoda-vargaṇā) is

$$\begin{array}{c} \equiv \partial 8 - \\ \partial \partial \end{array}$$

Hence the measure of bodies of one particle-multiplet (skandha) as multiplied by innumerate part of linear-finger (sūcyaṅgula), is as

$$\begin{array}{c} \equiv \partial \mid 8 \mid 2 - \\ \partial \partial \partial \end{array}$$

Corresponding to the body-wayward (kāya mārgaṇā), the measure of maximal fine vegetable set (nigoda rāśi) amounts to

$$\begin{array}{c} 13 - 8 \\ 9 \end{array}$$

This is divided by innumerate universe (asamkhyāta loka) five times, and we get the measure of bios (jīvas) in a body as

$$\begin{array}{c} 13 - \mid 8 \\ 9 \mid \equiv \partial \mid 5 \end{array}$$

When this is multiplied by three bodies the measure of the bios-set is as

$$\begin{array}{c} 13 - 8 \equiv \partial \mid 8 \mid 2 \mid - \\ 9 \equiv \partial \mid 5 \partial \partial \partial \end{array}$$

This is multiplied by the accumulation (sañcaya) of three bodies corresponding to one bios as mentioned earlier, and as here there in acceptance of annihilated-functional-part (kṣapita-karmāṇśa) hence the multiplier of thirty-two ahead of the alphabet "sa" is not placed, and the symbolism of minimal fine vegetable-variform (nigoda vargaṇā) happens to be as

ASG p. 183

mark the placing of this term, actually it should be slightly shifted below.

Again, similar symbolism is to be known about the maximal vegetable-variform (nigoda vargaṇā), about this let there be

Specially known that — whatever is the acceptance of the multiplied-functional-part (guṇita-karmāṇśa) bios (jīvas), hence ahead of the "sa" alphabet there is placed numerical symbol thirty-two.

Again the symbolism for the minimal of sky-variform (nabho-vargaṇā) there is place symbol of one in excess above. Again in order to show multiplication of this by innumerate part of [universe]-square [jaga]-(pratara), symbol of \bar{o} is placed ahead, getting is symbol of the maximal.

Again the symbol of minimal of great-particle-multiplet (mahāskandha) is obtained on placing the symbol of one in excess above it. Now this is divided by innumerate part of pit (palya) and one part there of is mixed in it, by showing through symbol of one plus innumerate part of pit (palya) as 1—

and multiplying by it, and dividing by innumerate part of pit (palya) as

pa
o

TRANSCRIPTION

utkrṣṭa (maximal) 255	utkrṣṭa (maximal) 1 —
madhya (middle) 0	256 kha kha
0	kha
1— 1— 1—	madhya (middle)
16 16 16	0
jaghanya (minimal)	0
16 16 16	jaghanya (minimal)
asamkhyātāṇu vargaṇā	1—
innumerate particle variform	256 kha
utkrṣṭa (maximal) 15 15 15	āhāraka vargaṇā
madhya (middle) 0	
0	
3 3 3	utkrṣṭa (maximal)
jaghanya (minimal)	256 kha
2 2 2 2	madhya (middle)
samkhyātāṇu vargaṇā	0
(numerate particle variform)	0
1 1 1 1 1	jaghanya (minimal)
aṇu vargaṇā	256
(particle variform)	anantāṇu vargaṇā
	(infinite-particle-variform)

getting the symbolism for maximal great-particle-multiplet (mahā skandha). In this way the symbols of the twenty-three types of variforms (vargaṇās) are to be known :-

ASG p. 184

Cf. GJK, vol.2, pp. 822, et seq. In GJK the 1— goes our 25 balance.

continued

<p>utkr̥ṣṭa (maximal)</p> <p>1—</p> <p>1— 1— 1— 1—</p> <p>256 kha kha kha</p> <p>kha kha</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p>1—</p> <p>1— 1— 1—</p> <p>256 kha kha kha</p> <p>kha</p> <p>taijasa vargaṇā</p> <p>(phosphorescent variform)</p>	<p>utkr̥ṣṭa (maximal)</p> <p>1— 1—</p> <p>1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha</p> <p>kha kha kha</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p>1— 1—</p> <p>1— 1— 1— 1—</p> <p>256 kha kha kha kha kha</p> <p>kha kha</p> <p>bhāṣā vargaṇā</p> <p>(language variform)</p>
<p>utkr̥ṣṭa (maximal)</p> <p>1—</p> <p>1— 1—</p> <p>256 kha kha kha</p> <p>kha</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p>1—</p> <p>1— 1—</p> <p>256 kha kha</p> <p>kha</p> <p>agrāhya vargaṇā</p> <p>(non-assimilable variform)</p>	<p>utkr̥ṣṭa (maximal)</p> <p>1— 1—</p> <p>1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha</p> <p>kha kha</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p>1— 1—</p> <p>1— 1— 1— 1—</p> <p>256 kha kha kha kha</p> <p>kha kha</p> <p>agrāhya vargaṇā</p> <p>(non-assimilable variform)</p>

Note the different expressions if any on comparison with GJK vol. 2.

continued

<p>utkr̥ṣṭa (maximal)</p> <p>1— 1— 1— 1—</p> <p>1— 1— 1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha kha kha</p> <p>kha kha kha kha</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p>1— 1— 1—</p> <p>1— 1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha kha</p> <p>kha kha kha</p> <p>manovargaṇā</p> <p>(mind variform)</p>	<p>utkr̥ṣṭa (maximal)</p> <p>1— 1— 1— 1—</p> <p>1— 1— 1— 1— 1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha kha kha kha kha</p> <p>kha kha kha kha kha</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p>1— 1— 1— 1—</p> <p>1— 1— 1— 1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha kha kha kha</p> <p>kha kha kha kha</p> <p>kārmāṇa vargaṇā</p> <p>(karma-finishing variform)</p>
<p>utkr̥ṣṭa (maximal)</p> <p>1— 1— 1—</p> <p>1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha kha</p> <p>kha kha kha</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p>1— 1— 1—</p> <p>1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha</p> <p>kha kha kha</p> <p>agrāhya vargaṇā</p> <p>(non-assimilable variform)</p>	<p>utkr̥ṣṭa (maximal)</p> <p>1— 1— 1— 1—</p> <p>1— 1— 1— 1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha kha kha kha</p> <p>kha kha kha kha</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p>1— 1— 1— 1—</p> <p>1— 1— 1— 1— 1— 1— 1—</p> <p>256 kha kha kha kha kha kha kha</p> <p>kha kha kha kha</p> <p>agrāhya vargaṇā</p> <p>(non-assimilable variform)</p>

continued

utkrṣṭa (maximal)											
1—	1—	1—	1—	1—	1—	1—	1—	1—	1—	1—	1—
256 kha	kha	kha	kha	kha	kha	kha	kha	kha	kha	16kha	16kha
	kha		kha		kha		kha		kha		
madhya (middle)											
0											
0											
jaghanya (minimal)											
1—	1—	1—	1—	1—	1—	1—	1—	1—	1—	1—	1—
256 kha	kha	kha	kha	kha	kha	kha	kha	kha	kha	16kha	
	kha		kha		kha		kha		kha		
sāntara nirantara vargaṇā (discrete-continuous variform)											
utkrṣṭa (maximal)											
1—	1—	1—	1—	1—	1—	1—	1—	1—	1—	1—	1—
256 kha	kha	kha	kha	kha	kha	kha	kha	kha	kha	16kha	
	kha		kha		kha		kha		kha		
madhya (middle)											
0											
0											
jaghanya (minimal)											
1—	1—	1—	1—	1—	1—	1—	1—	1—	1—	1—	1—
256 kha	kha	kha	kha	kha	kha	kha	kha	kha	kha	kha	kha
	kha		kha		kha		kha		kha		kha
dhruva vargaṇā (eternal variform)											

Note the difference between this and that in GJK vd p. 828 et seq.

continued

utkr̥ṣṭa (maximal)

|| 1—

sa 32 ḍ ḍ kha kha 12 = 16 kha 8

ḍ

madhya (middle)

0

0

jaghanya (minimal)

1 ||

sa ḍ ḍ kha kha 12 – 16 kha 3

pratyekavargaṇā (every veriform)

utkr̥ṣṭa (maximal)

1— 1— 1— 1— 1—

1— 1— 1— 1— 1— 1— 1— 1— 1— 1— 1— 1—

256 kha kha kha kha kha kha kha kha kha kha 16kha 16kha 16kha
kha kha kha kha kha

madhya (middle)

0

0

jaghanya (minimal)

1— 1— 1— 1— 1—

1— 1— 1— 1— 1— 1— 1— 1— 1— 1— 1— 1—

256 kha kha kha kha kha kha kha kha kha kha 16kha 16kha
kha kha kha kha kha

sūnya vargaṇā (vacuum variform)

continued

<p>utkr̥ṣṭa (maximal)</p> <p> 1—</p> <p>sa 32 $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 – $\equiv \partial$ 8 –</p> <p>9 $\equiv \partial$ 5 ∂ ∂</p>			
<p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p>			
<p> 1—</p> <p>sa $\bar{\partial}$ $\bar{\partial}$ kha 12 – 16 kha 13 – $\equiv \partial$ 8</p> <p>9 $\equiv \partial$ 5</p>			
			1—c
			pa
			∂
			pa
			∂
<p>bādara nigoda vargaṇā (gross-vegetable variform)</p>			
<p>utkr̥ṣṭa (maximal)</p> <p>1—</p> <p> 1—</p> <p>sa $\bar{\partial}$ $\bar{\partial}$ kha 12 – 16 kha 13 – $\equiv \partial$ 8</p> <p>9 $\equiv \partial$ 5 ∂</p>			
			1—c
			pa
			∂
			pa
			∂
<p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p>			
<p>1—</p> <p> 1—</p> <p>sa 32 $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 8</p> <p>∂</p>			
<p>dhruvaq vargaṇā (eternal variform)</p>			

This should actually be placed in the above row as in GJK vol. 1, p. 834

<p>utkr̥ṣṭa (maximal)</p> <p> 1—</p> <p>sa 32 $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 – 8 $\equiv \partial$ 8 2 –</p> <p>9 $\equiv \partial$ 5 ∂ ∂ ∂</p>	
<p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <p> 1—</p> <p>sa $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 – 8 $\equiv \partial$ 8 2 –</p> <p>9 $\equiv \partial$ 5 ∂ ∂ ∂</p> <p>sūkṣma nigoda vargaṇā (fine-vegetable variform)</p>	
<p>utkr̥ṣṭa (maximal)</p> <hr/> <p> 1—</p> <p>sa $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 – 8 $\equiv \partial$ 8 2 –</p> <p>9 $\equiv \partial$ 5 ∂ ∂ ∂</p> <p>madhya (middle)</p> <p>0</p> <p>0</p> <p>jaghanya (minimal)</p> <hr/> <p> 1—</p> <p>sa 32 $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 $\equiv \partial$ 8 $\bar{\partial}$</p> <p>9 $\equiv \partial$ 5 ∂</p> <p>śūnya vargaṇā (vacuum variform)</p>	

utkr̥ṣṭa (maximal)	
1 —————	
1 —————	
1—	1—
sa 32 $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 – 8 \equiv ∂ 8 2 – =	pa
	9 \equiv ∂ 5 ∂ ∂ ∂ ∂ ∂
	pa
	∂
madhya (middle)	
0	
0	
jaghanya (minimal)	
1—	
sa 32 $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 – 8 \equiv ∂ 8 2 – =	
	9 \equiv ∂ 5 ∂ ∂ ∂ ∂
mahāskandha vargaṇā (super-particle-multiplet variform)	
utkr̥ṣṭa (maximal)	
1 —————	
1—	
sa 32 $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 – 8 \equiv ∂ 8 2 – =	
	9 \equiv ∂ 5 ∂ ∂ ∂
madhya (middle)	
0	
0	
jaghanya (minimal)	
1 —————	
1—	
sa 32 $\bar{\partial}$ $\bar{\partial}$ kha kha 12 – 16 kha 13 – 8 \equiv ∂ 8 2 – =	
	9 \equiv ∂ 5 ∂ ∂ ∂

Note: There as differente in GJK vol. 2 p. 8 where line is completely extended.

ASG p. 184 (ka)

Again, unctuous (snigdha) and anti-unctuous (rukṣa) controls (guṇas) are found in the matter-ultimate-particles (pudgala-paramāṇus). Their all degress, one etc., bind as one-one; even degrees two etc., two-two; add degrees bindable three etc., two-two are bound-up to numerate ३, innumerate ∂ , and ananta kha. Their structure is as follows :

TRANSCRIPTION

sarva amśa (all degrees)		sama amśa (even degrees)		viṣama amśa (odd degrees)	
snigdha (unctuous)	rukṣa (anti-unctuous)	snigdha (unctuous)	rukṣa (anti-unctuous)	snigdha (unctuous)	rukṣa (anti-unctuous)
kha	kha	kha	kha	kha	kha
0	0	0	0	0	0
0	0	0	0	0	0
ॐ	ॐ	ॐ	ॐ	ॐ	ॐ
0	0	0	0	0	0
0	0	0	0	0	0
२	२	२	२	२	२
0	0	0	0	0	0
0	0	0	0	0	0
6	6	12	12	13	13
5	5	10	10	11	11
4	4	8	8	9	9
3	3	6	6	7	7
2	2	4	4	5	5
1	1	2	2	3	3
				0	0

Here small circles (vindīs) have been kept as symbols to fill up the gaps of middle or intermediate degrees.

The number of bios (jivas) in various control stationed (guṇa-sthānas) are given as follows :

TRANSCRIPTION

	siddha (accomplished)	3
	ayogī (volitionless)	598
	sayogī (volitionful)	898502
	kṣīṇa moha (exhausted charm)	598
299	upaśānta moha (subsided charm)	0
299	sūkṣma sāmparāya (fine strategy)	598
299	anivṛtti karaṇa (invariant operation)	598
299	apūrva karaṇa (unprecedented operation)	598
	apramatta (perfectly regulated)	29699103
	pramatta (imperfectly regulated)	59398206
	deśasaṁyata (partially regulated)	5 dhana 13 ko ∅ ∅ 4 ∅
	asaṁyata (irregulated)	pa dhana 700 ko ∅
	miśra (mixed)	pa dhana 104 ko ∅ ∅
	sāsādana (fall from serenity)	pa dhana 52 ko ∅ ∅ 4
	mithyā dr̥ṣṭi (illusive vision)	13 –

Cf. also, GJK, vol. 2, p. 870.

ASG p. 185 Here the illusive-visioned (mithyā dr̥ṣṭi) set is slightly less than the mundane-set (saṁsāri-rāṣi). The set of the bios falling from serenity (sāsādana jīva rāṣi) is the pit (palya) as divided by innumerate two times, and once by numerate. The mixed set is the pit (palya) as divided by innumerate two times. The non-regulated-set (asaṁyata-rāṣi) is pit (palya) as divided by innumerate once. The partially regulated set (deśasaṁyata rāṣi) is pit (palya) as divided by innumerate two times, numerate once, and innumerate once. Here symbols for innumerate is ∅ , for numerate is the digit 4 .

Again corresponding to set of bios falling from serenity (sāsādana) etc., there are to be mixed in form of sum-set (dhana-rāṣi) as fifty-two, one hundred and four, seven hundred, thirteen crores. Corresponding to the imperfect (pramatta) etc., number has been shown through digits.

There corresponding to the unprecedented operation (apūrva karaṇa), etc., along the row, by the side of the annihilators (kṣapakas), the number of the subsiders (upaśāmakas) is to be known. The accomplished are equivalent to the set of the accomplished bios.

Again the divisors of pit (palya) corresponding to the non-regulated (asaṁyata), mixed, and fall from serenity (sāsādana) are as

asaṁyata	miśra	sāsādana
ॐ	ॐ ॐ	ॐ ॐ ४

There are divided by innumerate part of trail (āvalī) as redeuced by unity, one part thereof is mixed into them. For this, the symbol for innumerate part of trail (āvalī), amounting to innumerate is ॐ by which multiplication is effected and division of ॐ as reduced by unity is effected, getting the divisors corresponding to the non-regulated (asaṁyata) etc., among the divine-beings as.

asaṁyata	miśra	sāsādana
ॐ ॐ	ॐ ॐ ॐ	ॐ ॐ ४ ॐ
ॐ - 1	ॐ - 1	ॐ - 1

Note the symbol for subtract here. This is due to manipulation by scribes who could have missed slight difference in formation of symbol for negative.

Now similarly there are divided by innumerate part of trail (āvalī), and mixing one part, we get the divisors of the non-regulated (asaṁyata) etc., corresponding to Sanatkumar pair as.

asaṁyata	miśra	sāsādana
ॐ ॐ ॐ	ॐ ॐ ॐ ॐ	ॐ ॐ ४ ॐ ॐ
ॐ-1 ॐ-1	ॐ-1 ॐ-1	ॐ-1 ॐ-1

Again, when the divisor of the fall from serenity (sāsādana) set of saudharma dvika are multiplied by innumerate and numerate we get the divisor of non-regulated (asaṁyata), etc., among Sanatkumara pair.

In this sequence, the subsequence of multiplication with the preceding, preceding is to be known about sixteen station (sthānas), viz., above the saudharma pair, five pairs upto the Śātāra pair the astral; the vyantara, the bhavanavāsī, the subhuman, and the hellish of first, etc., upto seventh earth.

In their symbolism, the symbolism of Sanatkumāra in fall from serenity (sāsādana) a

ASG p. 186	ॐ ॐ ४ ॐ ॐ ॐ ॐ ४
	ॐ - 1 ॐ - 1

There ॐ ॐ was written ahead of the digit of four, it is written before the digit of four, we get

ॐ ॐ ॐ ॐ ४ ॐ ॐ ४
ॐ-1 ॐ-1

Ahead of this, conformally possible multipliers are to be known corresponding to the brahma pair.

Now corresponding to the Lāntava-dvika, symbolism as

ॐ ॐ ॐ ॐ ४ ॐ ॐ ४
ॐ - 1 ॐ - 1

has to be multiplied by placing ahead of it the digits of two, three etc., two. Three etc., times; two times innumerate; and once numerate; as ॐ ॐ ४ .

Further, ahead of it, corresponding to innumerate asaṁkhyāta as ∂ ; corresponding to mixed, $\partial \partial$ as two times innumerate, corresponding to fall from serenity (sāsādana) as $\partial \partial 4$ where two times innumerate and once numerate is taken as multipliers.

Further the divisors of the non regulated (asaṁyata of first earth and the partially regulated (deśa saṁyata) of the sub-human (tiryañca) are to be known same. Similarly, are to be known the symbols of divisors of pit (palya) corresponding, to the non regulated (asaṁyata), etc.

Again whatever measure have been regulated about own, own sets corresponding to life-course-way-ward (gati-mārgaṇā), from them for subtracting the number as other control-stations (guṇa sthānas), there is place symbol of slightly less as – ahead of the multiplier (guṇakāra), otherwise above the divisor symbol of slightly greater way be made as | . This gives the measure corresponding to illusion (mithyā). Thus they are to be known as follows :-

ASG p. 186 (ka)

TRANSCRIPTION

nāma (name)	sāmānya sarva jīva	sāmānya deva	saudharma dvika deva	Sanatkumāra deva	Brahama dvika deva cārabara (four times)
avirata (non-vowed)	pa ∂	$\partial \partial$ $\partial - 1$	$\partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial 4 \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial 4 \partial \partial 4 \partial$ $\partial - 1 \partial - 1$
mīśra (mixed)	pa $\partial \partial$	$\partial \partial \partial$ $\partial - 1$	$\partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial 4 \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial 4 \partial \partial 4 \partial \partial$ $\partial - 1 \partial - 1$
sāsādana (falling from serenity)	pa $\partial \partial 4$	$\partial \partial 4 \partial$ $\partial - 1$	$\partial \partial 4 \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial 4 \partial \partial \partial \partial \partial 4$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial 4 \partial \partial 4 \partial \partial 4$ $\partial - 1 \partial - 1$
mithyā dṛṣṭi (illusive visioned)	13 –	 1 = 7 4 65 = 1 –	– 3 –	– 1 11	– 1 9

There is 7 in place of ∂ here in ASG. In ASG there is $\partial - \partial$ in place of $\partial - 1$.

[illegible]

dvitiya prthvī nāraka (second earth hellish)	trīya prthvī nāraka (third earth hellish)	caturtha prthvī nāraka (fourth earth hellish)	pañcama prthvī nāraka (fifth earth hellish)
$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$
$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$
$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$
$-$ $ $ 12	$-$ $ $ 10	$-$ $ $ 8	$-$ $ $ 6

ṣaṣṭha prthvī nāraka (sixth earth hellish)	saptama prthvī nāraka (seventh earth hellish)
$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$
$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$
$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$	$\partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial \partial$ $\partial - 1 \partial - 1$
$-$ $ $ 3	$-$ $ $ 2

ASG p. 187 In this way the divisor of seventh hellish earth (naraka pṛthvī) corresponding to the falling from serenity (sāsādana) is

$$\partial \partial \partial \partial 4 \partial \partial 4 \mid 16 \\ \partial - 1 \partial - 1$$

In order to abbreviate its symbol, the symbol = is used and multiplied by innumerate, ∂ , ahead. Thus we get the divisor of the ānanta dvika corresponding to the non-regulated (asaṁyata) as = ∂ .

Again the divisors of ten stations (sthānas) from āraṇa dvika, etc., upto the graiveyika of the end, corresponding to the non-regulated (asaṁyata), are respectively numerate times. Hence here the symbol for the numerate is the digit of five. Again the symbols of once, twice, etc., are to be known as digits of one, two etc., ahead. In this way at the end the symbolism is = $\partial \mid 5 \mid 10$.

Again the divisors of eleven stations (sthānas), beginning from the ānanta dvika etc. ending with the Graiveyika, corresponding to the illusive-visioned (mithyādrṣṭi) are respective numerate times the preceding. Hence here the symbol for numerate is the digit of six. Again, the symbols for once, twice, etc., are denoted by placing one, two, etc., digits ahead. In this way, at the end symbolism becomes = $\partial \mid 5 \mid 10 \mid 6 \mid 11$

Again, the divisors of the Anudīśa and the Vijaya, etc., vimānas, corresponding to the non-regulated are respectively numerate times the preceding. Thus here the symbol for the numerate is the digit of seven, and for the symbols of once, twice, the digits of one, two are to be known ahead of them. Thus at the end the symbolism is

$$= \partial \mid 5 \mid 10 \mid 6 \mid 11 \mid 7 \mid 2$$

Again the divisor of the Ānanta dvika corresponding to the mixed (mīśra) is innumerate times the preceding, and its symbolism is as

$$= \partial \mid 5 \mid 10 \mid 6 \mid 11 \mid 7 \mid 2 \partial$$

Again the divisors of ten station (sthānas) from the Āraṇa dvika, etc., upto the ending Graiveyika, corresponding to the mixed (mīśra), are numerate times the preceding. Thus the symbol for numerate here is the digits of eight. Again symbols for once, twice, etc., the digits of one, two, etc., are to be known. Thus at the end, symbolism becomes

$$= \partial \mid 5 \mid 10 \mid 6 \mid 11 \mid 7 \mid 2 \mid \partial \mid 8 \mid 10$$

Again, the divisors of eleven stations (sthānas) from Ānanta dvika etc., ending with the Graiveyika, corresponding to the fall-from-serenity (sāsādana) are respectively numerate times the preceding. Hence the symbol for the numerate here is the digit of four. Again symbols for once, twice, etc. are the digits of one, two, etc., placed ahead. This at the end the symbolism becomes

$$= \partial \mid 5 \mid 10 \mid 6 \mid 11 \mid 7 \mid 2 \mid \partial \mid 8 \mid 10 \mid 4 \mid 11$$

Their structure is to be known as follows :

Ānata dvika ādi anta Graiveyika paryanta viśai bhāgahārani kī racanā

nāma (name)				
navama (ninth) Graiveyika	= ∂ 5 10	= ∂ 5 10 6 11	= ∂ 5 10 6 11 7 2 ∂ 8 10	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 11
aṣṭama (eighth) Graiveyika	= ∂ 5 9	= ∂ 5 10 6 10	= ∂ 5 10 6 11 7 2 ∂ 8 9	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 10
saptama (seventh) Graiveyika	= ∂ 5 8	= ∂ 5 10 6 9	= ∂ 5 10 6 11 7 2 ∂ 8 8	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 9
ṣaṣṭa (sixth) Graiveyika	= ∂ 5 7	= ∂ 5 10 6 8	= ∂ 5 10 6 11 7 2 ∂ 8 7	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 8
pañcama (fifth) Graiveyika	= ∂ 5 6	= ∂ 5 10 6 7	= ∂ 5 10 6 11 7 2 ∂ 8 6	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 7
caturtha (fourth) Graiveyika	= ∂ 5 5	= ∂ 5 10 6 6	= ∂ 5 10 6 11 7 2 ∂ 8 5	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 6
trītiya (third) Graiveyika	= ∂ 5 4	= ∂ 5 10 6 5	= ∂ 5 10 6 11 7 2 ∂ 8 4	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 5
dvītiya (second) Graiveyika	= ∂ 5 3	= ∂ 5 10 6 4	= ∂ 5 10 6 11 7 2 ∂ 8 3	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 4
prathama (first) Graiveyika	= ∂ 5 2	= ∂ 5 10 6 3	= ∂ 5 10 6 11 7 2 ∂ 8 2	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 3
Āraṇa dvika	= ∂ 5 1	= ∂ 5 10 6 2	= ∂ 5 10 6 11 7 2 ∂ 8 1	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 2
Ānata dvika	= ∂	= ∂ 5 10 6 1	= ∂ 5 10 6 11 7 2 ∂	= ∂ 5 10 6 11 7 2 ∂ 8 10 4 1

Anuśiṣa. Vijayādika kai asaṁyata viśaim bhāgahāra racana
(denominator-structure in irregular Anuśiṣa Vijaya etc.)

Anuśiṣa = ∂ | 5 | 10 | 6 | 11 | 7 | 1

Vijayādi = ∂ | 5 | 10 | 6 | 11 | 7 | 2

ASG p. 189 In this way, the pit (palya) is divided by the divisors as stated above, and the quotients so obtained may be known to be as each one of its own set (rāṣi). The measure of the divine of the Sarvārthasiddhi is three times or seven times the measure of the human female (manuṣyaṇis) corresponding to the life-course-ward (gati-mārgaṇā). Their symbolism is

$$\frac{42}{4} = 10 \frac{2}{4} = 2 \frac{1}{2} = 3 \frac{1}{3} \text{ athavā } 7 \frac{1}{7}$$

Again corresponding to the human-life-course (manuṣya gati) there are fifty-two crores, etc. There are numerate bios corresponding to the fall-from-serenity (sāsādana) etc; for the subtraction of which, the symbol is placed ahead of the set of the human (manuṣya), then the human (manuṣyas) corresponding to the illusive-visioned (mithyā drṣṭi) is obtained as

$$\frac{1}{1 \mid 3 - 7}$$

Again the number of the bios (jīvas) corresponding to the serenity (samyaktva) is as

TRANSCRIPTION

nāma (name)	kṣāyikī (annihilator)	vedaka (pathetic)	upaśāmaka (subsider)	sāsādana (falling from serenity)	miśra (mixed)	mithyā (illusive)
pramāṇa (measure)	pa 2 ३ १	pa ० 2 ३ १	pa 2 ३ १ ०	pa 2 ३ १ 4	pa ० ०	13 -

Here, during the trail (āvalī) period as multiplied by numerate three times corresponding to the seven, eight years, whatever numerate annihilators (kṣāyikīs) are born in the Saudharma dvika, then how many of them are born during the life-time (sthiti) period of numerate pits (palya) is the problem. Thus by the rule of three sets (trairāśika) :

TRANSCRIPTION

pramāṇa	phala	icchā
2 ३ ३ ३	३	pa ३

Hence the acquisition-set (labdha rāṣi) is the measure of the annihilators (kṣāyikīs) as pit (palya) divided by numerate trails (āvalīs). The pathetic (vedakas) are innumerate times the preceding, and the subsidiers are to be known as innumerate part of those very.

Again the number of the illusive-visioned (mithyā-drṣṭis) corresponding to the fall-from-serenity (sāsādana) and the mixed (miśra) is to be known as similar is their own control-station (guṇasthāna).

Further the measures of the nine syllable-gauges (padārthas) are to be known as follows :

ASG p. 190

TRANSCRIPTION

nāma (name)	jīva (bios)	ajīva (non-bios)	jīva puṇya (bios merit)	ajīva puṇya (non-bios merit)	jīva pāpa (bios demerit)	ajīva pāpa (non-bios merit)
dravya māna (fluent measure)	16	3 ≡ 16 kha	1— pa ∂ 4 ∂ ∂ 4 ∂ ∂	sa ∂ 12 — 2	13 —	1— sa ∂ 12 — 2
kṣetra māna (quarter measure)	≡ kha kha	≡ kha kha kha	2 ∂	≡ kha 2	≡ kha kha —	1— ≡ kha 2
kāla māna (time measure)	a kha	a kha kha	ka ∂	ka kha —	∂ kha —	ka kha
bhāva māna (phase measure)	ke kha kha	ke kha	O ∂	ke kha kha kha	ke — kha kha	ke kha kha kha

āśrava (influx)	saṁvara (impedance)	nirjarā (decay)	bandha (bond)	mokṣa (emancipation)
sa ∂	sa ∂	sa ∂ 12 — 64 O pa 8 5 ∂	sa ∂	sa ∂ 12 —
= kha	≡ kha	≡ kha	≡ kha	≡ kha
ka kha	ka kha	ka kha	ka kha	ka kha
ke kha 3	ke kha 3	ke kha 3	ke kha 3	ke kha 3

Here relative to the fluent-measure (dravya-māna) the bios-set (jīva-rāśi) is 16 . Again infinite times this is the matter-set (pudgala-rāśi) above which is placed the universe measure of time-fluent (kāla-dravya) along with three fluents (dravyas), viz., the aether (dharma), etc., resulting in the non-bios-set (ajīva-rāśi). Again the measure of the non-regulated (asaṁyata) is pa
∂

and measure of the partial-regulated (deśa saṁyata) is

$$\begin{array}{c} \text{pa} \\ \partial \ 1 \ 4 \ | \ \partial \ | \ \partial \end{array}$$

Here observing equality in divisor about the innumerate once, equidivisors are made through others, seeing equality of pit (palya), making one in excess above the multipliers as

$$\begin{array}{c} \cdot \quad 1— \\ \text{pa} \ \partial \ 4 \ \partial \\ \partial \ 4 \ \partial \ \partial \end{array}$$

Here for mixing the numerate bios of the imperfect-vowed (pramatta), etc., symbol of numerate is made above, getting the symbolism of the bios-merit-set (jīva-puṇya-rāśi). Again, the measure of the non-bios-merit (ajīva-puṇya) is numerate part of the instant-effective-bond (samaya-prabaddha) as multiplied by slightly less than one and half geometric-regression (guṇahāni). Again the bios-demerit (jīva-pāpa) is slightly less than the mundane-set (saṁsārī-rāśi).

Again the instant-effective-bond (samaya prabaddha) as multiplied by slightly less than one and half geometric-regression (guṇahāni) is divided by the numerate, and for taking up the major part there of is obtained on multiplying it by numerate as reduced by one. This gives the non-bios-demerit (ajīva pāpa).

ASG p. 191 Again, the input-influx (āsvava), impedance (saṁvara), bond (badha) or each of instant-effective-bond (samaya-prabaddha) measure.

Further the instant-effective-bond (samaya-prabaddha) as multiplied by slightly less one and half geometric-regression (guṇahāni) is divided by down-traction (apakarṣanaṇa) divisor 0 and innumerate part of pit (palya),

$$\partial$$

getting fluent (dravya) fit for geometric-regression (guṇa-śreṇi). This result is multiplied by the numerical symbol sixty-four and divided by the numerical symbol 85, getting the maximal disintegration-fluent (nirjarā-dravya).

Further the emergence-fluent (mokṣa-dravya) is of measure given by instant-effective-bond (samaya-prabaddha) as multiplied by slightly-less one and half geometric-regression (guṇahāni).

Again, relative to the quarter-measure (kṣetra-māna), the bios (jīva) and the non-bios (ajīva) are of universe (loka) measure as multiplied by infinite two times and three times. The bios-merits (jīva-puṇyas) are innumerate part of linear-finger (sūcyaṅgula). The non-bios-merits (ajīva-puṇya) are one part there of obtained on dividing infinite-times the universe (loka) by numerate. The major-part there of are the non-bios-demerits (ajīva-pāpas).

The bios-demerits (jīva-pāpas) are slightly less than the universe (loka) as multiplied by infinite two times.

The bond (bandha) etc., are infinite-times universe (loka).

Again relative to the time-measure (kāla māna), the non-bios (ajīva) are the bios (jīvas) as multiplied by the past-time (atīta-kāla).

The bios-merits (jīva puṇyas) are innumerate part of the kalpa period. The non-bios-merits (ajīva puṇyas) are slightly less than the kalpa-period as multiplied by infinite. The bios-demerits (jīva-pāpas) are slightly less than past-time (atīta-kāla) as multiplied by infinite. The non-bios-demerits (ajīva-pāpas) etc., are of measure kalpa-period as multiplied by infinite.

Relative to phase-measure (bhāva-māna), the bios (jīva), non-bios (ajīva) sets are obtained on dividing omni-science (kevala-jñāna) by infinite two times, one time. The bios-merits (jīva-puṇyas) are innumerate part of the divisions 0 of the clairvoyance-knowledge (avadhi-jñāna).

The bios-demerits (jīva-pāpas) are slightly less than the omni-science (kevala-jñāna) as divided by infinite two times. Other syllable-gauges (padārthes) are of measure given by omni-science (kevala-jñāna) as divided by infinite three times. Their conformally possible symbolism is to be known from the matrix (yantra).

SYMBOLISM ON THE RATIONAL-WAY-WARD (SAMJŪ MĀRGAṆĀ)

Symbolism is stated regarding the rational-way-ward (samjū mārgaṇā) chapter. There the symbolism corresponding to the number of bios (jīvas) is as follows :

nāma	saṃjñī	asaṃjñī
		13 –
pramāṇa		1
	=	२
	4 65 = 1	

Here the symbolism of the rational (saṃjñī) is obtained by placing three vertical lines above the divine-set (deva-rāśi) mentioned in the life-course-way-ward (gati-mārgaṇā) for mixing the rational (saṃjñī) of three life-course (gatis). For subtraction of which, the symbol of slightly less as – is placed ahead of the mundane-set (saṃsārī-rāśi), getting the symbolism for the non-rational (asaṃjñīs)

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SYMBOLISM ON ASSIMILATION-WAY-WARD (ĀHĀRAKA-MĀRGAṆĀ)

Now the symbolism is stated on the chapter of the assimilation (āhāraka) way-ward (mārgaṇā). There the maximal period of the assimilation (āhāra) is innumerate part of the linear-finger (sūcyaṅgula). The minimal period is eighteenth part of one respiration (ucchavāsa) as reduced by three instants (samayas).

The maximal period of the non-assimilation (anāhāraka) is three instants (samayas); the minimal period is one instant corresponding to the pāṇi-muktā motion, symbolized as

nāma (name)	āhāraka kāla (asimilating period)	anāhāraka kāla (non-asimilating period)
utkr̥ṣṭa (maximal)	2 ∂	sa 3
jaghanya (minimal)	O 1 – 3 18	sa 1

Again, the karma-finishing (kāramaṇa) period is three instants, 3 . The physical-macro-mixed-period (audārika miśra-kāla) is one inter-muhūrta (antar-muhūrta) as 2 २ 1

The period of the physical-macro (audārika) is numerate times this, hence the symbol of numerate being made as digit of four. we get 2 २ 4 . adding these we get 2 २ 5 as the measure-set (pramāṇ-rāśi). And the fruit-set (phala-rāśi) is slightly less than the mundane-set (saṃsārī-rāśi).

The requisition-set (icchā rāśi) is made the non-assimilation-period (anāhāraka kāla), the acquisition-set (labdha-rāśi) gives the measure of those bios (jīvas).

pramāṇ (measure)	phala (fruit)	icchā (requisition)	labdha rāśi (acquisition set)
3 — 2 २ 5	13 —	3	13 — 3 anāhāraka jīva pramāṇa 3 — (non-assimilating bios 2 २ 5 measure
3 — 2 २ 5	13 —	2 २ 5	2 २ 5 āhāraka jīva pramāṇa 3 — (assimilating bios 2 २ 5 measure)

SYMBOLISM ON ATTENTION-WAY-WARD (UPAYOGA-MĀRGAṆĀ)

Now the symbolism on chapter of attention (upayoga) is stated. There the knowledge-attention (jñānopayogī) bios corresponding to the number of bios (jīvas) is similar to that of the knowledge way-ward (jñāna-mārgaṇā). The measure of the vision-attentive (darśanopayogī) bios is similar to that of the vision-way-ward (darśana-mārgaṇā).

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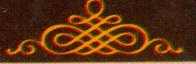
Corresponding to the brief-detail (ogha-ādeśa), in the chapter on twenty (vimśati) presentation description, the initial alphabets of conformally possible-way-ward divisions are written, and digits of numbers of control-stations (guṇasthānas), bios-aggregates (jīva-samāsas) are written below, getting a structure. Again having written the initial alphabet of the name of the control-stations (guṇa-sthānas) below than are written the digit of the measure of the conformally possible divisions of the way-ward (mārgaṇā). This is the structure which may be known according to description.

Again there is no special symbolism (saṁdr̥ṣṭi) in the chapter on specification (ālāpa).

Thus ends the description of the nature of the gauge-symbolism (artha saṁdr̥ṣṭi) corresponding to the section (kāṇḍa) on the bios (jīvas).

The end

keval darśan (omni visioned)	२ 3
avadhi darśan (clairvoyance visioned)	= 2 = 4 4 0
acakṣu darśan non-optical visioned	13 —
vyakta cakṣu ordar śanī	= 2 = 4 4 5
śakti cakṣu ordar śanī	= 2 = 4 4 0
deva vibhaṅgi jñānī	1 — २ = 4 65 = 1
nāraka vi. jñānī	— 2 —
manuṣya vibhaṅgi jñānī	— २
tiryāṅca vibhaṅgi jñānī	6 pa — 0
kevala jñānī	२ 3
manah paryaya jñānī	२
avadhi jñānī	1 — pa 0 0
śruta jñānī	pa 0
mati jñānī	pa 0
kuśruti jñānī	1 २ = 4 65 = 1
kumati jñānī	13 —
nāma	pramāṇa



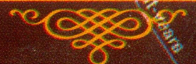
About the Co-author

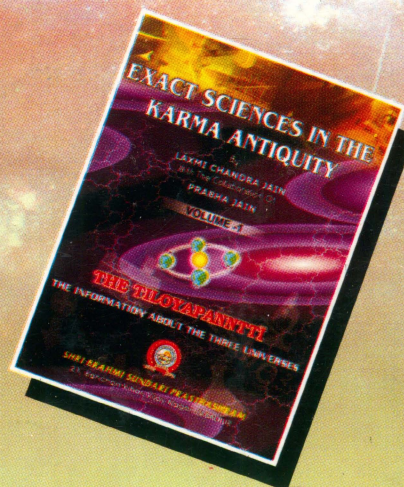
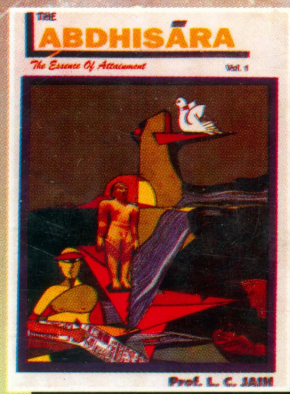
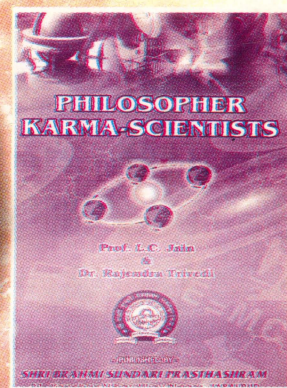
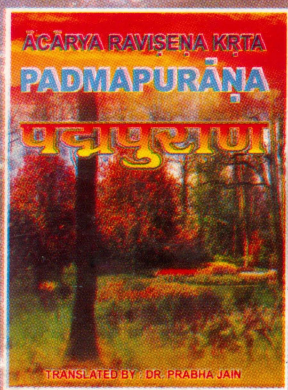
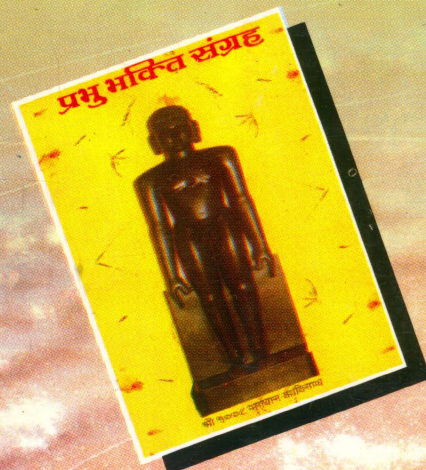
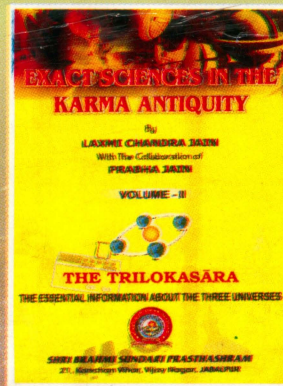
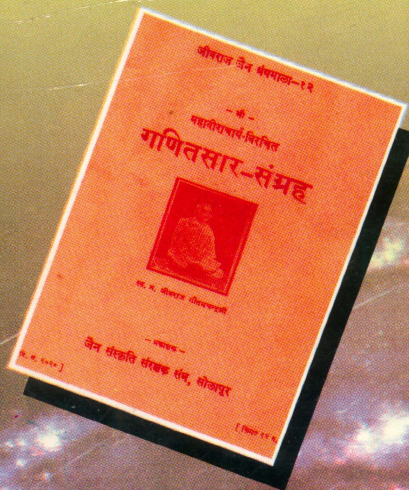
She was born at Pindari, Mandla (M.P.) on the 4th Oct. 1962. She passed B.A. and M.A. (Sanskrit) from the Saugar University. Then she topped the list of M.Phil. in 1993, from the Rani Durgavati University in Sanskrit. She was then awarded the Ph.D. from the same University in 1998.

Soon after her M.A. in 1984, she chose the way to asceticism and devoted herself to studies in Logic and Jaina Philosophy, Religion and Culture. She went on lecturing and preaching and visited the Jaina World Conference on Invitation from the Jain Convention, United States of America. Then she became the Director of the Brahmi Sundari Prasthashram, Jabalpur in May, 1999. She also took over the charge of administrating the Acharya Shri Vidyasagar Research Institute, Jabalpur, soon after it came under the management of the Prasthashram. Well versed in Computer Techniques she has been collaborating in publication works, like the INSA project, of Professor L.C. Jain. She has to her credit, Joint authorship of the Tao of Jaina Sciences, the Labdhisāra (vol.1) and a few research papers published in the IJHS and the Arhat Vachan.

She is the Chief editor of the digest magazine, "Rishabh Bharti" devoted for topics on humanities, social sciences, science and technology and Karma theory.

Recently, she has been engaged in organizing the publication of a series of volumes, on the Exact Sciences in the Karma Antiquity and the next series in the tradition of Shri Kundakundācārya (Mathematical Sciences in the Karma Antiquity). She is also serving as adhoc lecturer in the R.D. University, Jabalpur. She, on being invited, delivered a lecture on set theory in Prakrit Tests at a symposium in the London University (2007). Her translation of Padma Purāna into English is an unprecedented publication (2008).





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