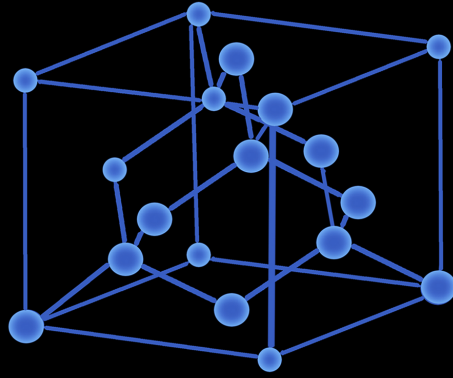


# JAINISM

IN 13 CHAPTERS



The Jain Karma Theory

DR M R GELRA

# **Jainism**

**In 13 chapters**

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## **Jainism in 13 Chapters**

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*Dedicated to my father, DR M.R. Gelra*

Jainism has been a guiding light for me throughout my life and I have been searching for new ways to pass on this insightful teaching to future generations that look for logical and scientific explanations.

'Jainism in 13 Chapters' fulfils this aspiration and offers deep knowledge not only in its religion and philosophy but also in its science and mathematics. Dr. M.R. Gelra, the author of this book and also my beloved father, is a prolific writer who has vast knowledge in the complexities and depth of the religion and is a true reflection of the scientific genius of a Jain scholar. This book provides all the basics of Jainism in bite-sizes and can be related directly into the values and virtues of our everyday lives.

Praveen Kumar Jain  
Managing Director  
MD, Valency International Trading Group Singapore

## FOREWORD

### COMPREHENSIVE ENCYCLOPAEDIA ON JAINISM

**Prof. M.R. Gelra** needs no special introduction either in the field of Science or education or Jain Studies, He is equally known and facile in all these fields, complimentary to each other. After serving the State of Rajasthan as Director of college Education he was made the First Vice Chancellor of the Jain Vishva Bharati Institute, Ladnun. With his vast administrative experience and profound scholarship, he laid a strong foundation for the overall development of the JVBI. I recollect vividly how, as the first Vice Chancellor, so well equipped with extraordinary qualifications and academic distinction, he gave a new dimension and introduced metamorphic changes to move with new age of technology. Since then on JVBI is slowly and steadily progressing.

The *Jaindharma* is not an *apaurusheya* religion. On the other hand it is a *paurusheya* religion of self-restraint and self-reliant. All souls are equal and are governed by karmas; a self-operated regulatory system. Jainism takes away the role of middleman and insists that the individual must ultimately find the truth and path of salvation for himself. *Anekanta* is for thinking, *syadvada* is for expression and *ahimsa* is for practice. Jainism is similar to Hinduism in practise but it is different and independent in its theory and philosophy in the recent decades scientists are fascinated to study Jainism and its principles.

**Professor M.R. Gelra's** present book, '**Jainism in 13 chapters**' is an example in this direction. Looking at the relevance of this ancient dharma, Prof. Mahavir Raj Gelra, by authoring this monograph in easy flowing lucid style, has tested Jain testaments/commandments in the laboratory of science. With his insightful approach to the subject and by reinterpreting the age old principles and the Life and Message of celebrated Vardhamana Mahavira. M.R. Gelra has left indelible imprints in the minds of readers. Very often the author's prose becomes poetry or rises to mystical heights and in both cases reader is the beneficiary. There are a number of quotable quotes, from the point of beautiful expression and clarity of thought. Since Gelraji has mastered the subject there is no scope for confusion. He has displayed an intellect of incredible versatility. I would like to quote some passages from the book to show how even profound philosophy is communicated to the readers enveloped in simple but effective prose. But selection of a particular paragraph is difficult because entire book is worth quoting. We can pick and choose any passage from any page! For my satisfaction I quote 3 passages from 3 different chapters of :

1. Prayer, 2.Jiva and 3. Relaxation

**1. Navakaramantra**, the first and the last letter in each salutation is cerebral in nature. The first consonant letter is *nam* and the last one is *namn*. When they are pronounced, the tongue strikes against the *Talu* i.e., the root of mouth known as palate which produces vibrations these vibrations affect the life forces within. Hence the life forces running through the body are driven by the vibrations of mantra. The seers have found that in this process when the mantra is repeated again and again, the breath becomes natural, i.e., deep and slow. Once it is achieved all of this varied types of vibrations generate the highest intensities of rhythmic movement, the highest intensities of interwoven verbal form and positive thought substance interact and create extreme heat. This leads to detachment of Karmas.

**2. Prof. MR. Gelra** has discussed the cardinal concept of soul and its dimension threadbare at length. Therefore, he starts first with defining the soul. The etymological meaning and synonym '*jivanam iti jivah*', means one that bears life or soul is called *jiva*. There are several synonyms of *jiva*. In the *Bhagavatisutra* there are many names like *prana*, *bhuta*, *satva*, *vijna*, *vetta*, *cheta*, *jeta*, *atma*, to indicate *jiva*. Out of these synonyms, the terms *jiva* and *atma* are indiscriminately used in Jain *Agamas*. We should note Atman is used for the self and *Jiva* is used in general for all souls.

**3. Relaxation** is a process through which every part of the body is systematically relaxed by command of mind. It can be performed in any posture of the body, may be standing, sitting or sleeping. It is a spiritual practice where mostly one sits down with eyes closed and tries to make every part of the body tensionless. After the relaxation of the body, mind is relaxed by watching the process of breathing and controlling the inhalations and exhalations i.e., the outgoing and incoming breath should take equal time. The optimum number of inhalations and exhalations per minute should not be more than five or six. This systematic breathing applies a sudden brake to the whole thought process, empties the mind, brings aloneness and keeps one away from pre-conceived ideas. This process seems to be scientific and reasonable because the matter used in breathing is so fine and minute that if their expansions and compressions are controlled, the other vibrations of the mind will be controlled too.

### **These quotes are self-explanatory**

The depth and dimension of the book needs no exaggeration. The author beams flood light of scientific perception on the corpus of Mahavira's teachings. He does not forget to give a brief history of Jainism.

The monograph revolves round the pivot of soul, karma, metaphysics, *ahimsa*, ethics, ecology, cosmology, mathematics, art, and *aparigraha*. There is hardly any important subject that has escaped author's notice. He has brilliantly covered so many topics that the book becomes an abridged or comprehensive encyclopaedia of Jainism. I take pleasure in congratulating Prof. M.R. Gelra for this extraordinary book. At the same time

I recommend and request people to buy and present this book, particularly to the youngsters, in all community gatherings, marriages and festivals. This is a book for all, the young and the old, the learned and the common house holder.

**Prof. Hampa. Nagarajaiah [Hampana],**

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## BLESSINGS

// Arham //

There are many religions in the world. They may have their own philosophy too. Jain religion is based on spirituality. It has its own philosophy. One can get a good deal of knowledge about Jain religion and Jain philosophy in Agam literature and in subsequent treatises. Most revered Gurudeo Tulsi and Acharay Mahapragya ji tried to make Jainism accessible to laymen through the medium of editing Jain *Agams* because of their translation and commentary in Hindi, people ignorant of Prakrit can be acquainted.

Dr. Mahaveer Raj Gelra is a learned scholar of Jain *Vidya*. He is also well-versed in the field of science and therefore he has been successful in presenting the principles of Jain religion in the context of science. He has also been the first Vice-Chancellor of Jain Vishva Bharati Institute- a deemed university. His book 'Jainism in 13 chapters' will be a success as in introduction to Jain *Vidya*.

**Virat Nagar**  
**(Nepal)**

**Acharya Mahashraman**



## AUSPICIOUS MESSAGE

Dr. Mahaveer Raj Gelra is a respectful personality of the Jain *Samaj*. He is a wonderful example of reconciliation of philosophy and science.

He has not only made an intensive study of *Agams*, he has also done the praiseworthy effort of authoritatively presenting them in the language of science.

Earlier his books on the above subject have been published. In these the elaborate thinking of Jain philosophy has been weighed in the scales of science and its authenticity has been proved.

By authoring this book in English he has scientifically presented and defined Jain philosophy. It will help the Jain community to easily understand the complexities of Jain philosophy and will reverentially understand the authenticity of Jain philosophy.

A lot has been written on Jain philosophy in the language of deep devotion and philosophy. But writing it by encompassing it within scientific language is the need of the hour. The language of science is easily understood. Shri Gelraji has indeed done a commendable job by writing the present book.

I was introduced to Shri Gelraji by my sister Sadhvi Dr. Vidyut Prabha. It gives a great joy to encounter his scholarship and simplicity.

I wish that this book 'Jainism in 13 chapters' containing his deep scholarship becomes a lighthouse for thousands of people and Shri Gelraji may keep bringing out many books like the present one.

**Raipur**

**Ganhadish Maniprabhsagar**

## COMMENTS

The new book '**Jainism in 13 chapters**' is an excellent book for western people or the Indian people who do not have much knowledge about Jainism. The beauty of the book is the presentation of Jain concept in lucid manner without any confusion or mistake. The author of the book **Prof. M.R. Gelra** was Vice Chancellor of **Jain Vishva Bharati Institute, Ladnun** but, basically he is a chemist. He has in-depth knowledge of Jain Philosophy, Literature and conduct, so that he can explain the different aspects in scientific manner. We can easily see that the background of author influenced the style of presentation, which is unique and understandable.

The distinct features of the book as summarized by the author in preface are true, i.e. –

1. Prayer deals with “significance of Mantra”.
2. Antiquity deals with the “contribution of the German scholars and Indus Valley Civilization”.
3. Metaphysics deals with the “concept of massless karma”.
4. *Pudgala* deals with the “difference of attributes in between gross matter and fine matter”.
5. Philosophy deals with the “existence of co-opposites, the very basis of co-existent evolution”.
6. Religion deals with the “acceptance of nonviolence for world peace”.
7. Ethics deals with the “recent developments in Jain society”.
8. Ecology deals with the “animate nature and environment”.
9. Culture deals with the “equanimity and vegetarianism”.
10. Art deals with the “iconography and temples”.
11. Cosmology deals with the “eight point centre of the universe”.
12. Mathematics deals with the “old concept of numerate, innumerate and infinite”.
13. *Agams* deal with the teachings of Lord Mahavira. Acharanga Sutra is the oldest *Agam* composed in the style, contents and grammar, just like that of Vedas.

In chapter-12, Author writes –

Concept of countable, uncountable, and infinite and their distinction are very important. The details of Mathematics means a way of expressing certain kind of thoughts in the form of Number, Quantities, shapes etc. Mathematics represents the abstraction of all basic Sciences.

The Jain contribution in the field of Mathematics is unique. The tending to zero and its difference from absolute zero may be fruitful for further research in the field of Mathematics. So many books are available on Jain philosophy but not much written on applied Jainism. The present book may motivate many authors to think over writing on applied Jainism conduct and utility of Jain principles in their lives. Appropriate use of photographs is increasing its readability and interest.

I would like to see it in published form shortly.

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## PREFACE

Jainism has been a living faith in India for thousands of years. The cardinal principles of Jainism propounded by twenty fourth Tirthankar Lord Mahavira twenty five centuries ago shows that the history of investigating truth and nonviolence is very old. Mahavira pursued the doctrines based on reverence of life, equanimity, and a sense of mutual interdependence. In addition to its philosophy and religion, it is surprising to find that the laws being investigated by the scientists now were investigated by Mahavira in ancient times. Further Jainism has contributed a long and significant heritage to Indian art and culture, which has kept Jainism alive through ages. As a result, in practically all parts of India, there are stone inscriptions, the remnants of sacred mounds, cave temples, 'built' Jain temples and images. Jain *shastra bhandars* (Libraries) and temples have preserved rich treasures of art and culture. I have tried to understand the vitality of different dimensions of Jainism and presented it in this book with scientific perspective. Though some of the principles of Jainism are repeated in more than one chapter but the contents and presentation is different.

This book contains the essentials of Jainism with a special reference to modern science, under the heading; 'Jainism in 13 chapters'.

The contents of the chapters with their ideological underpinning are as follows:

1. Prayer is founded on the enlightenment of the soul through virtues and wisdom.
2. Antiquity is founded on the era 3000-5000 B.C., the period of Indus Valley Civilization.
3. Metaphysics is founded mainly on the concept of soul and karma
4. Matter is founded on the existence of the fine *Pudgal* with no mass.
5. Philosophy is founded on *Anekantvad* (non-absolutism)
6. Religion is founded on the principles of Non-violence (Ahimsa) and Non-possession.
7. Ethics is founded on the negation or limitation of property and possession.
8. Ecology is founded on the partnership with nature, no exploitation.
9. Culture is founded on vegetarianism and forgiving community.
10. Art is founded on the temples, manuscripts and paintings.
11. Cosmology is founded on the unbounded space and finite universe.

12. Mathematics is founded on the existence of tending to absolute zero and non-existence of absolute infinity.
13. *Agams* are founded on the classical and basic knowledge imparted by Mahavira.

As we are aware, on 25th April 2015 a massive earthquake rocked Kathmandu and some other parts of Nepal causing destruction and devastation to a great extent not only of property but also of living-beings. It seems to be a coincidence that a great Jain Acharya Mahashraman ji arrived at Kathmandu on 21st April as per schedule of tour of *Ahimsa Yatra* in Nepal. He was with his disciples and followers. Being closely associated with Nepal, Indian government has launched massive relief and rescue operations. At this moment, a great spiritual leader Acharya Mahashraman determined to stay there in such odd circumstances and gave a message to all of his followers in Nepal, India and abroad to extend religious help and to perform prayer.

At this point of juncture, I was busy in writing a book. I thought to complete the book as early as possible. But it took its own time in completing the various steps to achieve the last stage of publication. The special feature of this book is that the subjects are dealt with modern science and many references are taken from the literature of Acharya Mahapragya a great saint and philosopher-writer of this century. Jain technical terms and names of scriptures are put either in the bold letters or italicized.

#### **Special Features of Book**

1. Prayer deals with “significance of Mantra”.
2. Antiquity deals with the “contribution of the German scholars and Indus Valley Civilization”.
3. Metaphysics deals with the “concept of massless karma”.
4. *Pudgala* deals with the “difference of attributes in between gross matter and fine matter”.
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13. *Agams* deal with the teachings of Lord Mahavira. Acharanga Sutra is the oldest *Agam* composed in the style, contents and grammar, just like that of Vedas.

## **ACKNOWLEDGEMENTS**

I acknowledge thanks to my son Praveen and daughter-in-law Sunita Jain, Singapore, for inspiring and sponsoring the project of writing a book on Jainism, simple in language, in the light of modern science. I did so, while writing the book on 'Jainism in 13 chapters' and I hope it will be of great use to the new generations. The main features of Jainism are incorporated in short, details are avoided. My grand-daughter, Priyanka and her husband Dev Ashish Singhvi and Prof. K.C. Sogani have not only read chapters of this book but have given good suggestions which are incorporated in this book. I express my deep sense of gratitude to Prof. R.P. Bhatnagar, in spite of his old and ailing age, looked very minutely the language and grammar of each chapter of this book. My note on acknowledgements remains incomplete if I do not bow my head to Acharay Mahashraman ji for his blessings. I was fortunate in getting blessings of Acharay Tulsi ji and Acharay Mahapragya ji for my earlier publications. Acharya Maniprabhsagarsuri ji has also sent affectionate blessings. He has always encouraged me for writing on Jainism. I bow my head to all the great Acharyas. I cannot forget my wife Mrs. Gulab Gelra for the constant inspiration. With no reservations, I express my gratitude to all the scholars who have published papers on, completely the new subject of Jainism and science. My knowledge rests on them. My thanks are also due to my grand-daughter Sweta Jain, who helped me in setting the script in the form of print lay-out and designing the cover page. I acknowledge thanks to the 'CreateSpace' for publication of this book in a very short time and setting the book for UK & USA circulation through Amazon.



**DR M.R. GELRA**

**AUTHOR**

Dr. Mahavir Raj Gelra born on 20<sup>th</sup> March, 1933 at Jodhpur (Rajasthan) is currently residing at Jaipur (Rajasthan), India. He is Emeritus Professor in Jainology in Jain Vishva Bharti Institute, Ladnun, India.

At a very young age of 22 in 1955, Dr. Gelra had held very important talks on Jain philosophy with the then, Vice President of India, Dr. Radhakrishnan. In 1958, his participation in the International conference on Vegetarianism, Bhopal, also received much recognition. In 1982, he visited the Indology Departments of Universities of Hamburg and Berlin (Germany) and conducted research on Jainism. He returned to Germany four years later to participate in the International Congress for Asian and North African Studies at Hamburg, West Germany to read the paper on "Sallekhna is not Suicide". He then attended and chaired a series of sessions in the following International symposiums for the History of Mathematics and Mathematical Education:

- Gunma University, Japan, 1987
- Maebashi University, Japan, 1999
- Tianjin Normal University, China, 2002

Dr. Gelra also chaired the International Round Table conference on Jainism on the occasion of 22nd World Congress on Philosophy, Seoul (Korea) in 2008. In Rome, he presented the Anuvrat fundamentals and Jain Philosophy during his participation at International meeting for interfaith prayers organized by the Community of Saint Egidio, at the Vatican City. The Lion's Club, Rome had especially honoured him. Dr. Gelra is the founder vice-chancellor of JVBI, the Jain University in Ladnun. He was also the Editor (Founder) of Jain Research Journal, Tulsi Pragya. Outside of this role, he has travelled extensively to bring Jainism to the world and organized various International Conferences on Jainism.

## **Awards**

- 2001 Jain Agam Manisha Award
- 2005 Kundkunda Jnanapeeth Award
- 2006 Anuvrat Award
- 2009 Bodhi Award
- 1997 Silverstar was awarded by the President of India, sponsored by Indian Scout Association.

## **Books**

1. Prarthana Se Astha (Hindi)
2. Chintan Prasang (Hindi)
2. Jyoti Kanika (Hindi)
3. Science in Jainism (English)
4. Jain Vidya & Vigyan  
    Sandrabh: Acharya Mahapragya's Literature (Hindi)
5. Vigyan Ke Alok me Jain Dharma (Hindi)
6. Jain Studies and science (English)
7. .Jain Agam ka Samanya Gyan, part -1 (Hindi)



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## CHAPTER - 1

# PRAYER

### Introduction

Most religions give utmost importance to prayer but their methods of prayer are different. Those who believe in a creator God, pray for happiness and peace in life. Some religions, including Jainism, deny the existence of an omnipotent creator God. Jains believe that every being is a God in its essence. They pray to recollect the virtues and invoke the wisdom of enlightened souls within themselves. Jains entreat those perfectly pious souls, who have attained the highest state of consciousness i.e. achieved the state of liberation of soul from karma.

Ancient Buddhist wisdom reflects that we all have a Buddhist nature seeded deep within us, for some more easily accessible than for others. This is not just a philosophically possibility, but possibly even empirically verifiable.

Regardless of any religious labels, there is an instinctive spiritual hunger amongst humans to lead a peaceful life. Prayer helps to satiate this desire; Prayer is the spark from which the fire of faith is ignited bringing light into our lives. Let us learn the significance of prayer through narration. Narration helps in understanding the subject more explicitly.

### Narration

There was once a fine young man who had been deceived by many of his friends. Hurt, disappointed and angered by this deceit, he prayed to God. He prayed fervently, night and day, he neither ate nor drank to seek revenge on those who had cheated him. The story says that the Angels saw this man praying with such intensity, and they could not ignore his prayers for help. They asked the man, "Young one, what is the reason behind this vehement prayer?"

He responded "I need the Almighty's great power to help me in destroying the people who have tried to destroy me. They deserve no less than death. Give me the strength and the ability to do this."

The Angels knew that the young man was asking to receive the deadly weapon 'Vajra' to annihilate his enemies. Unmoved by his prayer, the Angels decided that this young man did not deserve their help and therefore they left.

There was another sage praying at a great distance from this young man at the same time. The sage was calm and had been praying with such spirit and dedication for years that the Angels decided to pay him a visit. The Angels appeared in front of the sage and asked him his reason for praying. The sage was slightly startled to see the Angels. Breaking out of his meditation, he replied, "I seek not much, only a little wisdom to see myself and the world better. I know that only the divine powers can grant me this." The Angels were pleased, yet, decided to test the Sage. "Do not mock us O Sage, we know more than you do and can see much more than you can. Do you not want more, to destroy those whom you hate and bring them down for all the injustice they have done to you?"

The Sage smiled, "I need nothing but wisdom. I have no enemy on this earth." The Angels were still not mollified, "We do not have any wisdom to grant you, all we have is the ultimate weapon that will allow you to redeem yourself and do away with those whom you dislike." The Angels wanted to be certain of the Sage's intentions. "With all due respect Angels, then I will continue to meditate and pray, asking for wisdom, as I need nothing more," vowed the Sage. The Angels, assured of the pure intentions of the Sage's prayers, did not hesitate before granting the Sage the fruit of his prayers.

This story reflects that only those Prayers are fruitful in life whose true purpose is to subconsciously bring out the spirituality in us, which have a great effect on our minds and help to practice wisdom as a way of life. This, we find in the Jain prayer.

### **Jain Prayer**

For spiritual evolution, Jains pray to Dev, Guru, and Dharma.

Dev means *Arhats*, the *Tirthankars* who have conquered the passions.

Guru means the spiritual preachers who inspire to live a virtuous life.

Dharma means the path of righteousness, i.e. right knowledge, right faith and right conduct.

The contents of the prayers differ in different sects of Jainism; all cannot be included here. One will serve the purpose, as the aim of all the Jain prayers is the same. To illustrate the general trend of the prayer, an example of the followers of Jain Swetamber *Terapanthi* sect is, as follows:



**Acharya Mahashraman in Prayer [1]**

### ***Navkar Mahamantra***

*Jain prayer starts with the Mangalacharan, the holiest of mantras called Navkar Mahamantra.*

Prayer starts with the pronunciation of *Navkar Mahamantra*. It is performed with folded hands and bowed heads. This body posture is believed to help the finite consciousness to communicate with the infinite consciousness.

*Navkar Mahamantra* is worded in Prakrit language is as follows:

*Namo Arahantanamn*

Obeisance to the *Arahanthas* (Enlightened Souls)

*Namo Siddhanamn*

Obeisance to the *Siddhas* (Emancipated Souls)

*Namo Ayariyanamn*

Obeisance to the *Acharyas* (Preceptors)

*Namo Uuvajjhayanamn*

Obeisance to the *Upadhyas* (Spiritual Teachers)

*Namo Loe Savvasahunamn*

Obeisance to the Saints of the entire world

Five-fold Obeisance this, annihilates all sins

And brings the highest good, happiness and bliss.

These five salutations are capable of destroying all the sins and are prominent as the most auspicious among all auspicious forms. Jains recite *Navkar Mahamantra* in the morning before starting the work of the regular day. The *Mahamantra* is recited before the commencement of any activity of significance in one's life.

**(i) Prayer and Pooja**



**Performance and Pooja in Digamber Jain Temple, Jawahar Nagar, Jaipur [2 & 3]**





**Prayer and Pooja in Swetamber Jain Temple  
(Mahavir Sadhna Kendra, Jawaharnagar, Jaipur) [4 & 5]**

## **(ii) Significance of Mantra**

**Mantra** is described as a poetic rhythmic speech. Mantras in the Sanskrit or Prakrit language are constituted in selective alphabets. Jain *Navkar Mantra* has each alphabet of its own wavy nature. When recited with rhythm they produce vibrations which help in balancing the tendency of word, body and mind. These vibrations of each alphabet are related to a particular form of wave carrying energy.

According to modern physics, fine matter vibrates with compressions and expansions and forms a wave. Each wave has the characteristic nature of frequency, wavelength, and intensity.

Let us study how the wave theory helps in explaining the effect of Mantra?

In *Navkar Mahamantra*, the first and the last letter in each salutation is cerebral in nature. The first consonant letter is 'nam' and the last one is 'namn'. When they are pronounced, the tongue strikes against the 'Talu' i.e. the root of mouth known as palate which produces vibrations, these vibrations affect the life forces within. Hence the life forces running through the body are driven by these vibrations of mantra. The seers have found that in this process when the mantra is repeated again and again, the breath becomes natural i.e. deep and slow. Once it is achieved all of these varied types of vibrations generate the highest intensities of rhythmic movement, the highest intensities of interwoven verbal form and positive thought-substance, interact and create extreme heat. This leads to detachment of karmas, but how? We have to understand the physical nature of karma. Though the Karmas are very fine massless *pudgal* but are material in nature with four characteristic qualities of the touch of hot and cold, the touch of attraction and repulsion. It is therefore, the gain of heat and the quality of repulsion helps in breaking the physical bonds existing amongst karmas and causes detachment of the Karmas from the empirical soul. In this process, the more and more part of consciousness opens and the purpose of the Mantra is achieved. In short, the process can be described as follows:

- Firstly, the repeated recitation of the mantra keeps the breathing deep, slow and rhythmic to an extent that the *pudgal* used for breathing becomes massless,
- Secondly the fine waves of breathing interacts with life forces,
- Thirdly the process creates extreme heat and breaks the bondage amongst Karmas,
- Finally the physical Karmas are detached from the empirical soul.

This description gets support from the Jain literature which illustrates that the *pudgala* i.e. matter used during deep breathing is very fine and the waves produced are physically similar to the waves of karma *pudgala*. Such physical similarity of fine matter, causes them to interact easily. We should remember that the rules of mutual interaction of fine matter are different than that of gross matter. Therefore, the breathing material acts as a bridge in between the bodily material and the Karmic material.

In case, the pronunciation of the mantra is not proper, and deep breathing is not achieved the qualities of cold and attraction of fine matter will come into force and the new bonding of Karmas will take place. Hence, one must be very alert in performing the Mantra.

### **(iii) Concept of GOD**

Jains do not believe in an omniscient, all powerful, almighty God capable of creating and destroying the world. Hence, the speciality of the Jain prayer is that Jains do not pray to any particular God to ask for wealth, happiness or solutions to their problems.

We observe several respected scientists embracing similar philosophies. Einstein was once heard asking "whether God had any choice in creating the universe". More recently, Hawking described the universe as "...with no edge in space, any beginning or end in time..." and thereafter commenting on his opinion on God "...and nothing for a creator to do".

### **(iv) Meditation**

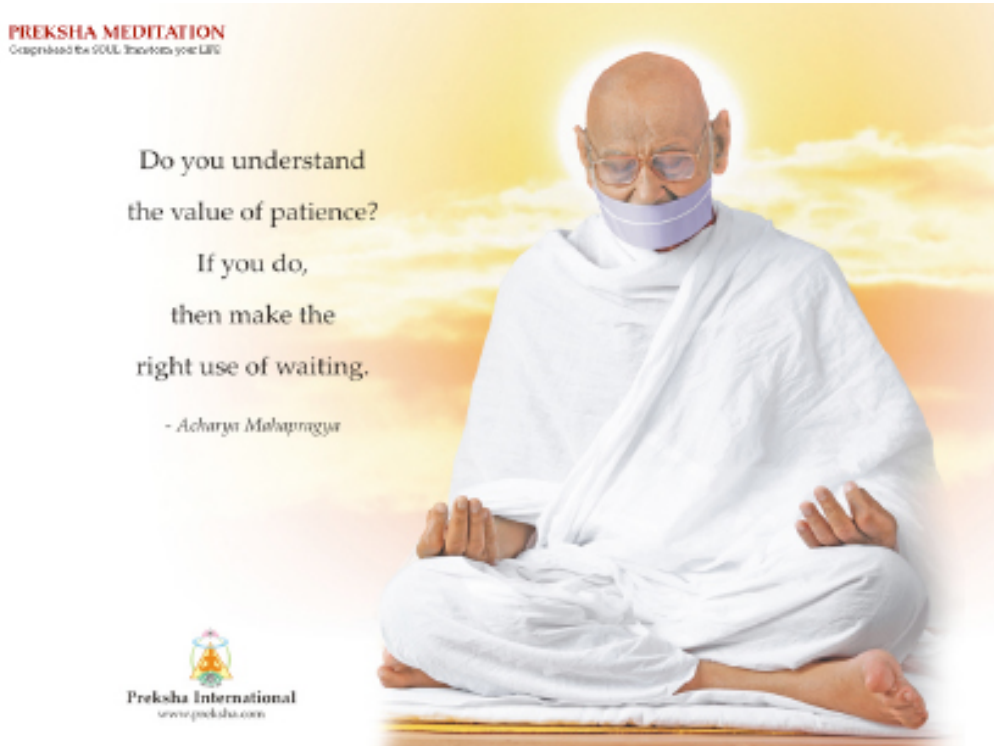
Today, Jain prayer involves meditation too, because the objective of meditation and prayer seems to be common i. e. to achieve peace in life.

In meditation the object of concentration is the centre of the eyebrows, tip of the nose or the crown of the head. It is known as the command centre in yoga. The deep breathing helps in it. One may start this practice by inhaling through one nostril exhaling through the other nostril and inhaling and then exhaling through the first nostril. It is one full Pranayama. It helps in the purification of channels. The most important thing in meditation is to keep the spinal column erect i.e. the body, neck and head in a straight line. Meditation should be practiced by sitting in *Sukhasana* posture so the spinal column remains erect which facilitates the flow of energy from bottom to the top and helps in achieving peace of mind.

The word meditation is derived from two Latin words: *meditari* (to think, to dwell upon, to exercise the mind) and *mederi* (to heal). According to Jou TsungHwa, the Chinese term for meditation is Ching Tso, i.e. "sitting still with peaceful mind". Its Sanskrit derivation '*medha*' means wisdom.

Modern scientists using brain imaging technique (functional magnetic resonance imaging), investigating the effects of the meditative state on Buddhist monks brains have found that portions of the organ previously active became quiet, whilst pacified areas became stimulated. "Perhaps that (spiritual) sense of reality is more accurate than our scientific everyday sense of reality. It shows that the different areas of the brain cause different actions or activity. Jains believe that there is constant increase in the power of knowledge during the silent hours of meditation. Dr Newberg's observations are that during meditation, people have a loss of the sense of the self and frequently experience a sense of void in space and time. Jains believe that meditation decreases the effect of Karma and increases the strength of the soul. Meditation has been practiced since the ancient times, mainly in the east. There is increasing evidence of meditation as a useful and, a powerful therapy for some people.

The unique feature of the modern Jain prayer is that before reciting the prayer verbally, Jains emphasize exquisitely on prerequisite temperament to be cultivated for prayer by the purification of mind and soul through Relaxation – *Kayotsarg* and *Samayik*.



**Acharya Mahapragya [6]**

### **Modern Jain Prayer**

There are three stages in Jain prayer :

- (1) Relaxation
- (2) *Samayak*
- (3) Recitation.

#### **Stage 1: Relaxation**

Relaxation is a process through which every part of the body is systematically relaxed by command of mind. It can be performed in any posture of the body, may be standing, sitting or sleeping. It is a spiritual practice where mostly one sits down with eyes closed and tries to make every part of the body tensionless.

After the relaxation of the body, mind is relaxed by watching the process of breathing and controlling the inhalations and exhalations i.e. the outgoing and incoming breath should take equal time. The optimum number of inhalations and exhalations per minute

should not be more than five or six. This systematic breathing applies a sudden brake to the whole thought process, empties the mind, brings aloneness and keeps one away from pre-conceived ideas. This process seems to be scientific and reasonable because the matter used in breathing is so fine and minute that if their expansions and compressions are controlled, the other vibrations of the mind will be controlled too. In this state of aloneness one becomes aware of his soul and enjoys it but does not feel lonely. There is a marked difference between aloneness and loneliness. Loneliness is related to vested connections, it is painful for the bearer and he/she feels miserable being away from his loved ones. Aloneness, on the other hand, is divinity gained for knowing the soul and feeling its presence.

After relaxation, the mind becomes free of scattered thoughts and various patterns.

## **Stage 2: *Samayik***

*Samayik* is a word derived from *Samaya*, which means time and equanimity. Equanimity brings mental and physical control over the body and leads towards a state of timelessness. Equanimity is like the state of the soul that bears the cutting by the axe and smearing by sandal paste with equal tranquillity. Acharanga Curni states that the external body or the internal passions are attenuated are called as beyond sorrow and pleasure and is like a plank of wood chiselled on both sides. Jain's describe equanimity as:

Equanimity is our faith, equanimous our actions;

Let equanimity steep our entire being. It is further proclaimed that religion is nothing but equanimity:

*In loss or gain, in pleasure and pain,  
In death or life,  
Whether censured or praised, honoured or disgraced,  
Yet equanimity remains,  
A sage discreet,  
Unattached to this world, and the world hereafter,  
Cut by a chisel or salved with sandal-paste,  
Luxuriously fed or downright starved,  
Not to lose one's poise in any extremity is the mark of equanimity.*



**Jain followers observing Samayik [7]**

*Samayik* is a fusion of the true self with increasing detachment with external objects, a temporary renunciation of all possessions. The classical definition of *samayik* is the uprooting of primary passions like *Raga* (attachment) and *Dvesha* (aversion). During *Samayik*, Jains give utmost importance to the principle of forgiveness by saying:

*Friendship towards all beings,  
Delight in the qualities of virtuous ones,  
Utmost compassion for suffering beings,  
Equanimity towards those who are not well disposed towards me,  
May my souls have such dispositions as these forever.*

Such a confession and plea for forgiveness and forgiving others can be part of one's daily prayers bringing great emotional and psychological benefit.

Jain prayer is performed individually or collectively and takes place in public or in private places and also in temples. The purpose is to attain equanimity in life. Equanimity is the essence of religion and is the state in which consciousness becomes free from emotional disorders.

### **Stage 3: Recitation of prayer**

After relaxation, *samayik* and the pronunciation of *Navkar Mahamantra*, chanting of Jain prayer begins. There are many poetic prayers constituted by different *Acharyas*,

one of them is by the leading Jain saint, Acharya Tulsi. This prayer is from original Jain sources, one stanza of the prayer is as below :

*You are purer than the moon and more brilliant than the sun.  
You are deeper than the oceans. Oh, God, grant me perfection.  
Looking with the light of wisdom within, we grow to a vision serene  
Let ultimate knowledge blossom forth,  
In the soil of conduct fertile,  
Steadfast be our faith in truth,  
And the mind uncrossed by doubt,  
We are drops of water and the ocean too,  
Let all complexes dissolve,  
Devotee and divinity at once.  
From songs of gratitude Jain prayer leads to one's mind being fully awake.*



**A group of Samnies reciting prayer collectively [8]**

Jain prayer is not about flattering the God. Instead, it is interlinked with the concept of *Arhatas* (enlightened souls) which believes that the comprehension of prayer will lead one to the first step the attainment of Arahathood (enlightenment), and freedom from the misery of life.

### **New Concept – Laughter**

To Osho, the experience of prayer is an "I – thou" experience: God is the 'thou', you remain an "I". During prayer when subject and object disappear, there is no I and no thou ...a unity, unison appears. Osho says, only laughter makes a man rich, but the laughter has to be blissful.

Nowadays, prayer is a good feel factor. It increases will power. It increases the connectivity between medial prefrontal cortex and central striatum which are the two regions of the brain. It keeps a person with good feeling. In recent years, laughter has been added as a tail end of prayer. Laughter is more enjoyable and pleasure giving than enchanting mantras or going to a place of worship. A good laugh is a tonic for health and mind. In this way laughter is no less than prayer. The deeper the laughter, the deeper will be the prayer and such laughter is no less than meditation.





## CHAPTER-2

# ANTIQUITY

### Introduction

Antiquity refers to ancient times, especially the period before Christ or at least before the middle ages.

The excavations of Indus valley civilization revealed that an entire society and its civilization of that period were built on the edifice of non-violence. Neither traces of weapons nor any defensive fortifications have been found around the cities. A high civilization was born.

### Narration

The discovery of the Indus civilization seems to have thrown a new light on the antiquity of Jainism, the oldest living religion of the world. Previously, the onset of Jainism had not been dated so far back, but after renowned **Jain Acharya Vidhya Nandji** carried out extensive research on the objects and articles available from the Indus valley civilization the discoveries advanced the prevalence of Jainism by at least 5000 years. He comprehensively studied the coins and seals excavated from the Indus valley civilization dating back to an era of 3000-5000 B.C. and established proof of the presence of Jainism in that period.

The most striking archeological features and attributes of the Mohan-jo-daro and Harrapa seals were:

Yogic (Relaxed) Posture – ***Kayotsarg Mudra***

Meditative Posture – ***Dhyanaavastha***

Cloth-less humans – ***Digabaratva***

These three salient attributes are very specific signature marks of the Jain culture and practices. Nudity has been a special characteristic of Jainism and it is believed that the first *Tirthanker*, Rishabha, observed the vow of nudity. *Kayotsarga* posture of standing is very peculiar of Jains. This is a characteristic of Jain images at present. To enhance our understanding; we will analyse one particular seal. Acharya Vidyanandji had earnestly analysed a seal 620/1928-29 carefully preserved at the Central Archaeological Museum of Government of India. The description is as follows:

“Towards the right of the seal is seen Lord Rishabhdev in nude Yogic posture. A trident overhead is symbolic of three gems of Jain tenets : *Samyak Gyan, Samyak Darshan, Samyak Charitra*. His eldest son, a mighty and supreme king, Bharat is standing in his full

royal attire and crown. Bharat is shown with his hands folded and head bowed in modesty. Behind him is depicted a bull which is specific to Jina Rishbdev. Vidyanandji comments that the excavation findings represent a civilization, which had well developed ethnicity and traditions.



**A bull painting found in the Indus Valley Civilization [9]**

These seals are not accidental but are representative of a well-established culture. Some statues have been discovered also in the meditative mood, the half shut eyes, being fixed on the tips of the nose both in the sitting and standing poses. These statues and images on the seals may be taken to indicate that the people of Indus Valley at this time not only practiced Yoga but also worshipped the images of Yogis. We, therefore find a conclusive proof of antiquity of Jainism – a religion pioneered by Lord Rishbhdev”.

According to Jain tradition, bull is a characteristic symbol of Lord Rishbhdev. A seal obtained in Mohenjodaro excavations is of a bull with some script. The script of the seal has not been deciphered till today, however it gives understanding regarding the antiquity of the Jains.

### **Jain Antiquity**

Jainism is widely known to be one of the most ancient religions of India. To chronically decipher an ancient religion, relentless efforts have been made to evaluate and consolidate facts of Jainism with fiction that links missing pieces together, gather proof of Jainism and evaluate it with the preaching of Jain leaders and finally, collect evidence of Jainism and consider it with eventuality. Jainism represents the ancient Indian culture, known by the name, *Shramana Sanskriti*.

### **(i) Agamic findings**

According to the Jain canonical texts, time is cyclic and in every half-cycle, which takes innumerable years, twenty four *Tirthankars* incarnate. In the current descending half of the cycle, Rishbhdev was the first *Tirthankar*. Before becoming a monk, he was an emperor of an early civilization, and his contribution to social life was tremendous. He initiated seventy two artistic professions for men and sixty four for women. Mahavira was the last *Tirthankar* born in 598 B.C. in Bihar. We know of the existence of these *Tirthankars* because ancient Indian literature repeatedly mentions Rishbh, Nemi, Parshva and Mahavira. Historically, Rishbhdev found his place in Hindu literature Bhagwat. Buddha and Mahavira were contemporary figures according to the respective Indian religious traditions of the last 2500 years. The present Jain tradition is the outcome of the doctrines laid down by Mahavira. Mahavira preached the doctrine of Non-violence as the path to eternal liberation from worldly suffering.

One of the Jain *Agam*, the Uttaradhyayana Sutra describes a meeting between Gautama Indrabhuti, the first disciple of Mahavira and Kesi Kumara the disciple of Parsva, the 23rd *Tirthankar*.

This shows the continuity of Jain tradition. We find many evidences in support of the Parsavnath as a historical figure. It is surprising to find more temples of Parsavnath in India than the number of temples of Mahavira. Parsavnath attained liberation at Sammetasikhara in Bihar, which is known by his name Parsavnath hill. The historicity of Parsavnath brings Jainism back to 872 B.C.

### **(ii) Survival through the ages**

It is a matter of utmost importance to know that how Jainism has been able to survive and prosper in India until the present day despite the *Sramana* traditions that arose in India during the middle of the sixth century B.C, while most of the anti-Brahmanical sects died out soon after the passing of their respective founders. Even Buddhism found its centers of learning in ruins and the Buddha himself was described as an incarnation of god Vishnu by Brahmanical writers, causing Buddhism to fade away from the sub-continent by the 14th century.

Parsavnath and Mahavira, the last two *Tirthankars* were from Bihar. Starting from Bihar, Jainism spread in all directions in India. Jain saints due to their intrinsic qualities adjusted themselves to the cultures and customs of different places. Therefore, Jainism not only survived in India but remains relevant even in the present times. We take into account Prof. Padamnath Jaini's view, which provides a general survey regarding the survival of Jainism.

#### **Prof. Padamnath Jaini's View – The Jain faith and its history**

The first important key to Jain's long and relatively prosperous existence is that they have repeatedly won kingly favour. Well - known examples are, Ganga Dynasty in

Karnatka and Kumarpal of Gujarat. During the period (746-806), Jains moved into positions of great influence as ministers and financiers in Gujarat. Although the king Vanaraja's successors reverted to Shaivism, Jains were able to establish a power base that remained relatively effective for many years. They managed to retain a certain measure of political and economical influence in the kingdoms by centering religious activities in their many wealthy temples and by promoting the prohibition of animal sacrifice in the Muslim kingdoms of the north. For example, during the Mughal period, Akbar was persuaded by the Jain monk Hiravijaya-Suri to 'release prisoners, caged birds and to prohibit the killing of animals on certain days'. This practice is still continuing in certain states of India. In the mid-twelfth century, the Jains even brought a brief 'Golden Age' of their own in the Saurashtra area, called the period of 'Kumarpal'.

Secondly, the Jain Acharyas directed (Upasakadhyayana, 477-80) their *Sravakas* to participate in all worldly practices whether they were of government concern or business with members of the non-Jain community. This was held as long as there was neither a loss of pure insight nor violation of vows. This caused a reasonable balance between the two priorities; the continuation of Jain belief and the need for a fruitful interaction with the non-Jain society.

However, during the reign of Asoka, Jain communities fell upon somewhat hard times and there was a decline of Jainism in Magadha later on. The Jain ascetics migrated to different places. One led northwest to Mathura and one southward to Mysore. According to Digamber tradition, Bhadrabahu had arrived in the south many years earlier. Furthermore, during the 12th and 13th centuries, numerous temples were lost, either due to militant Hindu sects (particularly in Deccan) or to the conversion into mosques by invading Muslims. (Saletora 1938/272-281)

Thus, while the support of ruling Jain houses was extremely important, it was not sufficient to ensure the sect's long term survival. Clearly, we must look further into other factors such as Philosophy, Religion, Community, Art and Culture. The most important part is that Jainism adjusted itself to the cultures and customs of the places. It is still exerting its influence unhindered.

### **(iii) Western Findings**

When European scholars first began to investigate the history of Jainism, nearly two centuries before, they felt compelled to conclude that Jainism is an offshoot branch of Buddhism due to the striking similarities between their ethical codes and institutions. However, German researchers like Jacobi, Buhler, Leumann, Weber and Zimmer later proved that Jainism is in fact much older than Buddhism. The author read the book of the German Indologist W. Schubring's on "The Doctrine of the Jains", quite long ago. Let me now quote the first paragraph of its first chapter titled 'A short history of Jain Research':

“It was in the year 1807 that in the Asiatic Researches (Calcutta and London), Vol. IX, there appeared three reports published under the title “Account of the Jains”.

These publications were pioneers in nature, which were followed by other publications later on, and they initiated the Jain research nearly two hundred years ago. A leap was taken by some of the German scholars who could collect some duplicates of Jain Svetamber Agams and sent them to the library of Berlin.

In this way a rich collection of *Agams* and other works reached Berlin including the oldest version of the famous Brihatkatha of Gunadhya and they were taken care of by the leading Indologist of those times, Albert Weber. In his painstaking work of many years, he immersed into the then almost impossible jungle of entire scriptures. Prakrit knowledge was then very limited and Jain manuscripts were practically unknown till then. He prepared a magnificent catalogue in 1880 of those manuscripts. In its foreword he writes, “The good deal of my power of vision is carried in them” With the help of that catalogue he gave the first summary of the canonical Agams and initiated Jain studies in Germany. It became possible because Jain’s have kept the Prakrit language living. That is why the literature of their religion has found rather early great sponsors and researchers particularly in Germany.

The first translations of Jain sources into German date back to the middle of the nineteenth century when Ottovon Boehtlingk published a German version of Hemacandra’s *Abhidanacintamani* (1848). Albrecht Weber published some parts of *Satrunjayamahatmya* (1858) and *Bhagwati* (1866). After these beginnings, and encouraged by A. Weber, several German scholars set to work on the Jain writings.

We should particularly mention Earnst Leumann (1859-1931) and H. Jacobi whose works on Jainism are the most important in the early period. To present date, Schubring and L. Alsdorf continued the work.

Hence, the contribution made by German Indologists in the field of Jain studies is tremendous. Though Albrecht Weber (1825-1937) was the first German Scholar dedicated to the exploration of Jainism, the contribution of Hermann Jacobi (1850-1937) is no less. He discovered during a trip to even remote areas of Rajasthan that Jainism has a religious and philosophical tradition of its own.

During this trip, he encountered Jain monks and scholars who handed scriptures necessary for his researches to him. He studied the Jain manuscripts and translated some of the Jain Agams subscribed in two volumes in the series of ‘Sacred books of the East’. The western findings proved that the Jain sect had already attained a prominent position in the religious spheres of India.

During Twenty - fifth centenary celebrations of Lord Mahavira an International conference was organized by Jain Vishva Bharati, Ladnun, Rajasthan at Delhi, in which Prof. Ludwig Alsdorf of Germany participated. In his speeches, he described the difficult

conditions in which the German scholars worked. Fortunately the author was the convener of the conference. Two photos of that event are reproduced here.



**Ludwig Alsdorf [10]**

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**Inaugural session of National Conference at New Delhi [11]**



**Distinguished Audience in the Seminar: Prof. A.N. Upadhaya,  
Shri Jinendra Kumar Jain, Shri Shrichandji Rampuria and others [12]**

Archeological facts, historical evidence, western findings and the then practiced traditions together in a proper perspective, confirm the antiquity of Jainism.



## CHAPTER-3

# METAPHYSICS

### Introduction

Metaphysics is a science of being and knowing. It deals with abstraction.

Metaphysics is defined as the branch of philosophy that examines the true nature of reality, whether visible or invisible. Metaphysics includes the relationship between mind and matter, substance and attribute, and, fact and value. Since the dawn of civilization, humans have been curious about the nature and functioning of the universe, about the creation, birth and death of various types of living beings and about human behavior and its causes. Through metaphysics, different philosophies and faiths have given answers to these questions in various ways.

### Narration

There is a story known to be the shortest story of the story-world. Two passengers were travelling in a train. One of them asked another 'Do you believe in ghosts'. The other man said "No" and the first man disappeared. The morale of the story is that we do not believe in many things which are not visible to us, nevertheless they exist. We start believing them when we experience them or when we have a strong faith in them. Every religion postulates certain metaphysical concepts on which their full-blown structure is based.

### Jain metaphysics

Jain philosophy is based on four fundamental metaphysical concepts:

**Atmavad** – Concept of soul

**Karmavad** – Concept of Karma

**Lokavad** – Concept of Universe

**Kiryavad** – Concept of Action.

These metaphysical concepts can be traced from the first sentences of Acharanga, the oldest canonical text of the Jain *Agams*. Mahavira said "Only he who knows the transmigration of the soul is the upholder of the doctrine of soul, *Loka* (universe), karma and action". Because Jains accept the soul, the karma and its results, it is clear that Jain philosophy is not *Akriyavadi* (non-action) and *Nastikvadi* (non-believer). Here we deal with two main concepts of Jainism i.e. concept of soul and concept of karma.

## 1. Concept of Soul

According to Jainism there are two ultimate realities in the universe. They are: *Jiva* and *Ajiva*. *Jiva* means living beings, and *Ajiva* are non-living beings. Jainism strongly advocates that *Jiva* cannot change into *Ajiva* and *Ajiva* cannot change into *Jiva*.

### (i) Etymological Meaning

The etymological meaning and synonym '*Jivanam iti jivah*', means one that bears life or soul is called *Jiva*. There are several synonyms of *Jiva*. In the Bhagwati sutra there are many names like '*prana*', '*bhuta*', '*satva*', '*vigna*', '*vetta*', '*cheta*' , '*jeta*', '*aatma*' to indicate *Jiva*. Out of these synonyms, the terms *Jiva* and *Aatma* are indiscriminately used in Jain *Agams*. We should note that *Aatma* is used for the self and *Jiva* is used in general for all souls.

***Acharanga Sutra***, the oldest Jain text has propounded the theory of the plurality of souls i.e. in existence souls are infinite in number. We define soul as a metaphysical entity, believed to be non- material part of a living being and which exists even after death. Soul is immortal, invisible; hence it is spiritual and one of the realities of the existence.

The western philosopher Pythagoras believed in the immortality of the soul, and that there is a relationship between humans and animals; that the human soul can take birth in an animal. If humans led a disciplined life, it would prevent the soul from taking 'animal birth'.

### (ii) Elementary Classification

According to the elementary classification, the souls are of two kinds:

- (a) Worldly – Empirical souls
- (b) Liberated souls.

**(a) Worldly Souls** – Worldly souls mean the souls are in bondage with Karmas. These souls adopt the course of birth and death till the karmic particles are attached to them. These souls have been in the world from the time which has no beginning. These souls are classified in six types, *chajjivanikayas*. The details are dealt with, in the chapter on 'Ecology.'

**(b) Liberated Souls** – Liberated souls are disembodied souls who have shed all karmas and have no births and deaths. They are called siddhas. They are Godly souls and maintain their infinite knowledge, infinite bliss and infinite spiritual energy but they do not create and destroy the universe. The liberated souls reside at the top of the heavenly abode. The path depicted in the Jains' teachings is designed to improve the soul through righteousness, so that the inflowing karmas are stopped, and

existing karmas are annihilated. The ultimate aim of the soul's pilgrimage is to achieve the pure conscious state where the inherent qualities of infinite knowledge and infinite freedom are availed.

There is another classification of *Jiva*/soul:

- One kind of *Jiva* : by virtue of consciousness
- Two kinds of *Jiva* are: *trasa* – mobile (2-5 senses); *sthavara* – immobile (one sense).
- Three kinds of *Jiva*: From *Veda* (sex) point of view there are three divisions – *purusa* (male), *stri* (female) and *napumsaka* (dual/trans). All worldly beings will necessarily have one of *Veda*.
- Four kinds of *Jiva*: From *gati* (type of birth) point of view, there are four divisions. *Naraka* (denizens of hell), *Tiryanka* (animal), *Manusya* (human), and *Deva* (denizens of heaven).
- Five kinds of *Jiva*: *Jiva* are divided into five classes according to the sense organ point of view. Similarly there are six divisions – *prthivikaya*, *apakaya*, *tejaskaya*, *vayukaya*, *vanaspatikaya*, and *traskaya*.

From another point of view there are fourteen divisions and so on.

This way we can say that the science of *Jiva* in Jain philosophy is comprehensive.

### **(iii) Important Postulates**

1. The characteristic of soul or *Jiva* is consciousness or cognitive activity. Cognition may be sensuous and super sensuous experience.
2. Soul is non-material hence it is beyond sensory perception. One that has touch, taste, smell and colour is material and material can be sensed by sense organs. The attributes of matter are directly contrary to those of pure soul. Jains believe that the universe is eternal because of the existence of the two co-opposites *Jiva* and *Ajiva*. Only self - experience, perception and inference, could comprehend soul. Therefore it is said that 'soul exists for those who believe in it.'
3. Soul or *aatma* is the doer, and enjoyer. In doing so soul keeps its consciousness and transitory nature.
4. Soul attracts good and bad karmas by doing good and bad deeds.
5. Pure Soul is non-material but empirical soul has the body and karma attached to it.
6. The empirical souls have to bear the good and bad fruits of the karma.
7. Soul is an eternal, accomplished and independent substance. Souls are infinite in number in the universe.

8. Jain scriptures have provided a classical knowledge of life and consciousness. The entire ethical code of Jainism, which is based on Non-violence, is directed towards the attainment of complete liberation of soul from the karmas through introspection and penance so that the cycle of rebirth comes to an end. Or at least gets minimized. Non-violence means not to kill or hurt any living being by the body, speech or mind. Live and let live is the guiding principle. Non-injury to others is the highest religion. The process of birth may vary from plant to plant, animal-to-animal, human being to human being, but every life form has one thing in common – the consciousness to self-sustain and perpetuate. This consciousness as per the Jain belief is soul.
9. Jains believe that *jiva* is *dravya* with innumerable '*Pradesas*'. *Pradesa* is the smallest unit of *jivastikaya*. All innumerable *Pradesas* of a single soul remain united to each other so that no vital energy can separate them.

The concept of soul, in turn, gives rise to three interdependent doctrines of *Karmavad*, *Lokavad*, and *Kiryavad*. Alongwith these three metaphysical Doctrines, *Anakantvad* is the heart of Jain philosophy. Umaswati, Samantbhadra, Siddhasena and Mahapragya are the main contributors in the development of Jain philosophy.

The dimensions of the soul vary in accordance with the dimension of the body. It might happen to occupy the souls of an elephant and a tiny insect but the number of its *pradesas* remain same being innumerable in number. There are only contraction and expansion of the *Pradesas* according to necessity. The body of an elephant is huge and that of an insect tiny. The difference in the size of their bodies does not affect the equality of souls, each soul being consisted of the same number of *pradesas* which are definite, however the form changes

#### **(iv) Transmigration of the Soul**

We can understand the doctrine of soul through an interesting and illustrative event that took place during the life period of Mahavira. Mahavira initiated monkhood to Meghkumar, the son of Raja Srenik. During one night, Megh Kumar was sleeping in a passage and felt great inconvenience and disturbance from the movements of other monks. He felt so discomforted that he decided to leave monk- hood. Next morning he appeared before Lord Mahavira. Before Megh Kumar said anything, Mahavira knew his feelings and immediately said to him, "You want to go back to your kingdom simply because of the sleepless night you spent yesterday." Megh Kumar was astonished that Mahavira knew his feelings. He bowed and continued to hear more from Mahavira. Mahavira said, "Listen, I am now narrating one of your past lives. You were an elephant in the hills of Vindhyachal. Suddenly, the forest beneath Vindhyachal caught a blazing fire and many of the animals ran up to the hills to escape it.

During that period, you had lifted your foot to scratch it when a small rabbit came to get shelter under it. As you descended your foot back to the ground, you realized that the

rabbit was under it and immediately stopped from crushing it to death. The rabbit remained there for two days and you kept your leg stationary for two days as well. Soon after the rabbit left and as you began to place your foot back down, you lost control and fell to the ground and died. The good deed that you did in your past-life migrated your soul from an elephant to a king and finally to a monk. Megh Kumar realized the power of the righteousness and stayed as a monk thereafter.

### **(v) Story in Upanishads**

In the Upanishads there is a story. Svetaketu, a young boy came back from his master to his home. He had passed all the examinations but became very egoistic, when he reached his father's house the first thing the father said, you seem to be too filled with the knowledge, and your knowledge is making you egoistic – the way you walk, the way you have entered the house, I have only one question to ask you. Have you known that by knowing which everything is known? Have you known yourself? The son replied – there was no such course in the school – the father sent him back to the school.

## **2. Concept of Karma**

### **(i) Introduction**

The principle of Karma, called *karmavad*, is the backbone of entire Jain philosophy. Its understanding prompts a human to practice spiritualism. One's Karmas are the blueprint of one's past deeds on which the edifice of the present can be constructed and the future course can be charted.

There is a dire need of confluence between the Karma philosophy and the human psychology. A correlation between the two can open the flood-gates of exploration of new capabilities and strengths a human mind can possess. Saints have tried to associate the theory of karma with not only psychology but with yoga and genetics too.

Due to lack of proper explanations and half-truths prevailing about the theory of Karma, a vast majority has presumed it to be an inevitable destiny. They have marginalized the role of decisions and dexterity and have heavily banked on the doctrine of fate. For them, everything is predestined. A few others have termed the worldly happenings to be the game plan of Supreme God leaving little space for human endeavour. Jain literature describes that Karmas are not all that powerful; they can be reined in and altered by the right conduct and efforts. Their effect can be preponed, enhanced, worsened or transformed.

*Karmavad* is a powerful tool to root out the wide spread immorality. It is neither an escapist theory nor does it call for resignation; it's actual, deep and practical meaning is to employ our efforts to modify our present and future for the better. In all philosophies based on the reincarnation, theory of karma is well established and widely accepted.

But, if an unbiased analysis is performed, its full-blown development is seen only in the Jain philosophy.

To explain the diversity of nature, some religions rely upon destiny, some on God, some on probability and so on, but Jains follow the adage of Bhagwan Mahavira as mentioned in the Bhagwati-Sutra that the life's diversity is the direct result of karma.

### **(ii) Definition of Karma**

Different philosophies have their own definition of what karma is? However two broad definitions emerge – Mimansak sect, Gita, Yoga & Vedant, all associate various daily conduct and activities to the Karma. For them it is an abstract term.

In Jain Siddhant Dipika, the definition is,

*Aatma pravrtiya krstastat prayogya pudgalah karma.....*

This means that the karmas are micro physical bodies which are formed by the righteous and/or unrighteous activities of the soul. Author has coined a new word 'Karmasomes' to distinguish between the physical and abstract forms. In Greek, soma means body, therefore the newly christened word, 'Karmasomes' is meant to represent the karmic body.

### **(iii) Mass-less**

'Karmasomes' are formed by *chatu-sparshi pudgals* which are mass-less and they exhibit affinity towards the soul. This affinity binds the 'Karmasomes' with the soul. Soul and karma thus form a single entity for all practical purposes and they stay together during all cycles of births and re-births. These souls are termed as Empirical souls. The aim of a spiritually bent person is to unshackle the pure soul out of the attachment of karma. According to the ancient literature the karma *pudgals* are so fine that they cannot be detected by any direct means. But indirect evidences obtained by the science for the electrons and photons, quarks and gluons make us hopeful that one day a direct cause-and-effect relationship could be established between the actions of soul and the formation of karmic micro bodies. Thus in Jain philosophy, Karma is not only an abstract; but a real, physical entity. The main physical characteristics of Karma are :

1. Mass-less, i.e. virtual zero mass because of only 4-type touches (*snigdha-rukhsa, cold-hot*).
2. Karmas move with tremendous velocity, greater than the velocity of light.
3. They are sense-imperceptible due to subtleness.

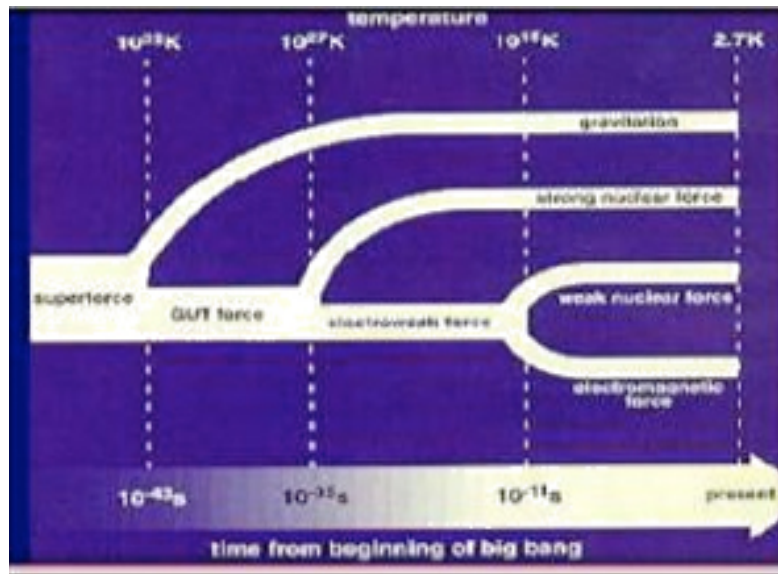
Karmas have only four touches, sticky and dry (*snigdha, ruksha*), hot and cold (*ushna, sheit*), but the property, which leads to weight i.e. lightness and heaviness, is absent. Hence, the properties of karma are comparable to the nature of fundamental particles related to modern science. Until now, there was no concept of mass-less matter in the

physical sciences so the above description of mass-less karma in Jain literature was considered irrelevant.

#### (iv) Scientific Experiments

**In search of the basic constituents of the universe, physicists are carrying out the experiments on large scale at Vienna on large Hadron Collider a 27 km long tubular.**

Nascent universe track buried a few hundred meters to know what exactly the particles were or the forces present at the time of big bang. Were they mass-less or with mass?



**Nascent Universe [13]**

These particles do not obey exclusion principle. It was interesting to know that the force carrying particles exchanged between matter particles are said to be virtual particles because unlike “real” particles, a particle detector cannot directly detect them. The behaviour of Gluon particle is very unique and appears sometimes as metaphysical. It is believed that within a fraction of a second, four fundamental forces — gravity, electromagnetic, strong and weak nuclear forces were created.

It is reported that at Cern (Genava) physicists performed two separate experiments with the help of a giant atom smasher and reached within a certain range of mass that would be consistent with the Higgs boson. If confirmed, the existence of the Higgs (God) particle would explain the 40-year search in a single stroke the mystery of what gives mass to this invisible constellation of particles.

Roughly speaking, the mass of a particle, much alike to the mass of a truck, is the resistance you would feel were you to push it. The question is, where does this resistance come from? The answer according to Higg’s idea is that all space is filled with an invisible substance – the Higgs field – that acts kind of like a pervasive molasses,

exerting a drag force as particles tend to accelerate through it. The 'sticker' a particle is the more the molasses – like Higgs field, which would appear as a tiny particle affects it and the more massive the particle appears.

However the calculations made clear that finding Higg's particle is no easy task. The Higgs particle would be short-lived, quickly decaying into other, more familiar particles and only by examining the decay products could the researchers accumulate evidence for the Higgs. Another difficulty is that the powerful proton collisions produce a maelstrom of other particulate debris and so the challenge of pinpointing the Higg's is enormous.

This report about the Higgs (God) particle, for a Jain scholar, it looks as if much has been narrated from Jain literature. Although, it is true that Jain literature does not have any support of experimental science however, it is really commendable that Jainism initiated the concept of weightlessness/ masslessness of matter two thousand years ago and was pioneer in this field. The modern science is now trying to confirm the existence of Gluons (massless matter) during big bang.

Far reaching advances have been made in the field of genetic engineering. Gene is a part of chromosome (a mega-molecule made up of DNAs) and is made of chemical proteins. The word 'chromosome' is made up of two Greek words – chromo (colour) and soma (body). Biologists have established, beyond doubt, that the coded information is carried from generation to generation by the genes. This statement sounds very similar to the karmas carrying information from one birth to the next. In the natural process, these genes undergo a slow change depending upon the climate, environment, nourishment, health, etc. But, biologists are very near to altering the genes chemically to obtain desirable characteristics and attributes of an organism. In some cases, they have been successful in eliminating, in-embryo, certain genes which were carrying the codes of different diseases. With this knowledge, the Darwin's theory of evolution has come full circle; modification of genes to suit and survive in a given environment has now been substantiated. Jain readers must recall here that the mention of various life-forms of Lord Mahavira has several parallels with the theory of evolution. In his preceding births – before assuming the human form – Mahavira lived several births in various animal forms, including the one of elephant, lion etc. All these descriptions convey but one fact – how humans have acquired best characteristics to evolve as a superior life form.

### **3. Types of karma**

Eight types of karmas are enumerated in the Jain scriptures. Depending upon the effects, some of them act as inhibitors, like *Gyanavarniya* (Knowledge-obscuring), others act as catalysts, like *Mohaniya* (Emotive), while the third category of *Ayushya Karma* is decisive. With respect to the modern psychology and genetics, two karmas, namely, *Gyanavarniya* and *Mohaniya*, are of special interest.



### **(i) Gyanavarniya Karma & Genes**

As the name suggests, *Gyanavarniya Karmasomes* are inhibitors of knowledge. Most invertebrates do not have mind, whereas the capabilities of mind vastly vary amongst the vertebrates. In humans, we bifurcate the mind as :

- Adayic or Conditioned mind,
- *Kshyopashmic* or Super mind.

Conscious or conditioned mind is the one which we have inherited from generations and is representative of animal behaviour. This conduct is mostly guided by our past *Karmas* as if the program is already coded into the genes. Another higher level mind is Super mind which is representative of a pure being. It acquires knowledge by way of detaching the *Gyanavarniya Karma*. It results in human awakening.

### **(ii) Mohaniya Karma & Psychology**

Emotive *Karmas* are responsible for our psychological behaviour. According to the Jain belief, the human passions of fear, anger, joy, sorrow, love, hate etc. are guided by these deluding set of *Karmasomes*. Relationships are a source of strong feelings both positive and negative. Our happy and hurtful moments come from them. The closure the relationship, the stronger the feelings it gives rise to involvement and significance we attach to.

Everyone knows what is good and what is bad, yet it is not always possible to conduct accordingly. On the contrary, it is the bad tendency which wins over the noble one. People often blame circumstances for any unworthy behaviour but the root cause is the activation of Emotive *Karmas*. This must be understood. It happened in the history of Jainism that Muni Sthulibhadra stayed at prostitute Kosha's house in an explicitly passionate environment for four months of *chaturmas* without even an iota of temptation. This was his capacity to win over the deluding *karmas* of *Moh.*"

Onslaught of Emotive Karma results in varied impulses of anger, conceit, obsession, voracity etc. All these emotions vary in their intensities and can be categorised into four stages :

- severe
- intense
- mild
- serene

Practice of equanimity under all circumstances is the key to conquer these emotions. When the intensities of these impulses become thin, we can take first step towards the liberation. From the psychological angle also, these emotive impulses are associated with many a disease. These emotions actually trap us in a vicious circle – more we succumb to temptations, more is our bondage and our sufferings augment.

#### 4. Karma - Mechanism

According to Jain philosophy, when a soul or bio executes a tendency, it simultaneously attracts and repels the fine Karmic substances (karmasomes, as defined earlier in this text). It is the righteousness of the tendency that decides whether the detachment outclasses the attachment or not? These properties of attraction and repulsion are due to the four-touch properties of a *karma*. As elaborated in the chapter of *pudgal*, *karma-pudgal* are said to possess four properties of *Snigdha*, *Ruksha*, *Ushna* and *Sheit*. First two properties of karma-exhibit the philic- or the phobic- tendencies towards the soul. This affinity between soul and *karma* could be one of the three types :

- Electric – as in positive and negative charges
- Magnetic – as in north and south poles
- Gravitational – as in cosmic bodies. Here it is necessary to mention that the gravitational force is not essentially attractive but could be repulsive as well. Various studies involving the concept of gravitons have revealed this fact.

##### (i) Attraction-repulsion

Here it must be understood that the affinity of soul and karma does not necessarily mean that the two amalgamate with each other. They unite to form a pair while retaining all their individual characteristics. It is as if the negatively charged electrons orbit around a positively charged nucleus. There is one more similarity, the bondage between soul and karma could be weak or strong. In Jain Agams, the dynamics of Karma attraction-repulsion has been described when a soul, in its process of liberation is elated to the thirteenth state (*Gunsthan*). As the soul is in its penultimate state of ecstasy, it cannot accumulate any more karmasomes (*karmic pudgals*), because it has to be fully free from *karmas* at the moment of salvation. In this state, the physical activities of the body attract the karmasomes, but the bond is so weak that it is broken instantly. *Karmas* decay as fast as they accumulate, so that the net result remains naught.

##### (ii) New Reasoning

In the Acharanga aphorism, it has been said :

- Those who attract Karma; bind them,
- Those who bind Karma; attract them,
- Those who do not attract Karma; do not bind them,
- Those who do not bind Karma; do not attract them.

This universe is completely filled with fine matter. According to science, there is no region of the space which may be empty. The gravitons and the photons are available at the most distant corners of the Universe. The network of the micro matter is extremely mysterious. Today, the science is engaged in the effort of knowing, both the micro and macro through the medium of mathematics. Every event of the past can stay for a long

time in space by being changed into a micro-system. Hence the attempts to know the past are continuing. In this space, such micro-systems are available in abundance and are readily available to those who are capable to utilize them. According to Jain canon, there is no possibility of any new event which may not have occurred in the past. It seems that in Jain literature the information available about the behaviour of the micro is consistent with the results of modern science. This is the extra-ordinary contribution of Jain philosophy that voluminous literature has been written on Karma theory.

People often argue that desire, hunger, anger, etc. all are written in our genes and bios have little control over them. But, once exposed to the unique teachings of Bhagwan Mahavira, this illusion comprehensively vanishes. According to him, Karmas can be transformed and so can be their effect. And, in this, the human dexterity plays a vital role. Now, even scientists know how to genetically modify a chromosome and also how to transform one chemical element into another. For centuries, the scientific fraternity believed that iron, copper, gold, mercury etc. are basic elements of nature. Later on, while studying the micro construction of elements, they discovered that one element can be transformed into another. We find a specific example of turning mercury into gold by bombarding the former with high energy protons. As a first transition, the proton enters the mercury atom to increase the atomic mass from 200 to 201. This is an unstable state, and the excited mercury atom releases an alpha particle having an atomic mass of 4. The resultant atom has an atomic mass of 197, which is identical to that of gold. The new atom thus obtained, has all the characteristics of the genuine gold atom. In the similar way, the dynamism and the dexterity can rewrite the destiny of karma.

## **5. *Ghati* Karma**

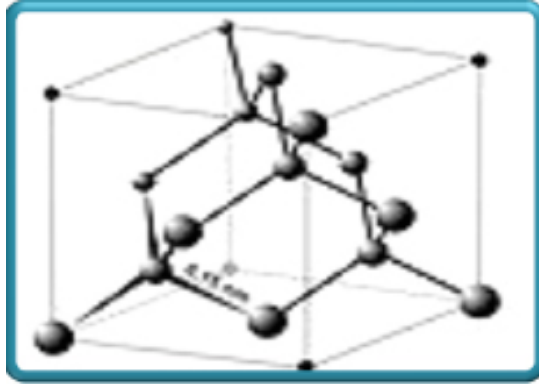
There are many classifications of *karma*, let us study one example regarding the characteristic difference in between the *Ghati Karma* and *Aghati karma*.

### ***Ghanghati Karma***

In Samansuttam (verse 7th) the term '*Ghanghati*' karma has appeared.

### ***Ghanghati Kamma***

The simple meaning, which has been given to '*Ghan*', is dense. This meaning requires some thought regarding the config :



**Three Dimensional figure of *Ghangati karma* proposed by the Author**

[14]

The *karmas* are grouped in two classifications namely *ghatia* i.e. obscuring or which to some extent affect the nature of the soul and *aghatia* or non-obscuring which do not affect the nature of the soul. This classification shows that *ghati karmas* are strongly bonded with the soul and cannot be annihilated easily. It is because, to my mind, *ghati karmas* are of *ghan* (cube) shape. Cube is three-dimensional. The atoms bonded in three dimensions form a strong network. Therefore, the geometrical configurations of *Ghanghati karma* are tough and are not easily breakable. This can be illustrated by a very popular example i.e. we know that the graphite and the diamond both belong to the Carbon family but diamond is very hard in comparison to graphite because in diamond bonding is three-dimensional.

We can infer that *ghati karmas* are three dimensional, whereas *aghati karmas* are either one dimensional or two dimensional. Another inference may be that *ghati karmas* are attached to or very near to the soul and *aghati karmas* are on the circumference of the field of the soul. Therefore *aghati karmas* can be detached easily rather than *ghati karmas*.

This explanation solves the difference of opinion which exists in between Swetamber Jains and Digamber Jains. Swetamber Jains believe that *Karmas* are bonded with the soul, while Digamber Jains believe that *Karmas* are not bonded with the soul but simply remain in the form of cloud.

## CHAPTER-4

# PUDGALA / MATTER

### Introduction

In historical perspective we find that Indian Philosopher Kannad and Western Philosopher Democritus have been widely considered as the pioneers of particle theory. Democritus represented the era of 460-374 B.C. The evolution of Kannad's 'Vaishashik Sutra' is considered to be around 1st century A.D, whereas, the period of Lord Mahavira is 599-527 B.C. Mahavira's Atomic theory precedes those of Kannad's and Democritus', but the historians of the Philosophy have ignored this fact. The reason is neither the bias nor the discrimination; it is perhaps the unavailability of Jain literature and lack of its serious study.

The word '*Pudgal*', as found in Jain literature may be considered equivalent to the scientific term matter (energy, force fields). It has two parts *pud* and *gal*. The first part *pud* means 'to combine' and second part *gal* means 'to dissociate' so the etymological meaning of *pudgala* is that *dravya* (substance) which undergoes modifications by combination and dissociation.

### Narration

The fundamental reality has been termed as '*Dravya*' in Jain metaphysics. Six *Dravyas* constitute the universe. *Dravyas* are also termed substances or realities.

They are:

1. **Dharmastikaya** – Medium of Motion
  2. **Adharmastikaya** – Medium of rest
  3. **Akastikaya** – Space
  4. **Pudgalastikaya** – Matter
  5. **Kala** – Time
  6. **Jivastikaya** – Soul/Living being.
- (i) Out of six *dravyas* including *Pudgal*, first five are *Ajivas* (No life), and the sixth *dravya* is *Jiva* (Having life).
- (ii) Secondly except *kala* (time) five *dravyas* are *astikayas* i.e. they exist in homogeneous continuum. **The principle of *Panchastikaya* is Lord Mahavira's original contribution.** *Asti* means '*pradesa*' and *kaya* means 'aggregate'.

### Definition of *Dravya*

1. Acharya Tulsi defines *Dravya* as,  
***gunaparyayasrayo dravyam***  
The substratum of attributes (*guna*) and modes (*paryaya*) is *dravya* (substance).
2. Umaswati in Tatvartha Sutra says,  
***Utpada-vyaya-dhrauvyatmakam sat***  
Sat means Existence and we know existence through *Dravyas*. “*Dravya*” is defined as “That thing alone, which is associated with that is, is characterized by all the three features origination, destruction and permanence.”
3. ***Dravya*** does not deviate from its essence – that is, from its eternal nature. And this real nature is constant. “What remains as it is and does not pass away is eternal.”

### ***Pudgal* in Jain Literature**

The study on *pudgal* (non-sentient) is no less important than the studies on soul (sentient). They both together constitute the Universe.

#### 1. Definition of *Pudgal*

- (i) *Pudgal* means tangible entity having four qualities of touch, and taste, odour and colour. Jain Sidhant Dipika defines *pudgal* as :

***Sparsa-rasa-gandha-varnavan pudgalah.***

These qualities provide shape or form to a *Pudgal*.

- (ii) *Pudgal* is *Ajiva* i.e. it has no conscious activity. There is absence of cognition in *pudgal*. The question arises whether *Ajiva* is only a negative form of *Jiva* or it is a positive entity. Jains emphasize that *Ajiva* is a positive entity because *Ajiva dravyas* have their own characteristics qualities.
- (iii) *Pudgal* is nitya or eternal and avasthita or immutable.

***Eternal*** means – *Pudgal* does not give up its general and the specific nature.

***Immutable*** means – While retaining own nature, not to assume the original nature that belongs to some other *dravya*.

- (iv) *Pudgal* shall remain *pudgal* always. It shows that universe will remain everlasting due to the permanent existence of *Jiva* and *Ajiva*. In addition to their characteristics qualities, there is a universal law that *Jiva* (soul) can never change to *Ajiva* (Non-Living) and *Ajiva* can never change to *Jiva*. (Living)

## 2. Characteristics Properties

Schubring, an eminent German Indologist has mentioned that among all inanimate fundamental realities *Pudgal* alone is palpable because it has four qualities.

They are :

Touch : cold -hot, rough-smooth, light-heavy, soft-hard

Taste : acid-sweet, sour-bitter and astringent

Smell : fragrant, foul smelling

Colour : black, blue, red, yellow and white

Due to these qualities *pudgal* can be experienced through senses; i.e. through touch, taste, smell, sight and hearing. In addition to this quality *pudgal* has a form. Jains have used the technical words *Rupa*, *Murt*/tangible for the word, form of the *pudgala*. All *pudgals* are said to be possessed of *Rupa*. *Rupa* literally means colour but Jains have described *Rupa* for form also.

The change in magnitude and intensity of various essential attributes of *pudgal* causes the evolution of certain other secondary qualities.

They are: Sound, binding, grossness, configuration, splitting, darkness, subtleness, shadow hot radiation and cold radiation.

## 3. *Pudgal* as a reality

Classification of *Pudgal*, as available in Jain scriptures, is very intricate. So far the complexity of the composition is concerned, it is based on the sparsh-touch of *pudgal*.

### (i) *Paramanu* or *Dion*

As stated earlier, *Parmanu* is the smallest part of a *pudgal* which is indivisible. *Parmanu* may be better termed as *dion* because it possess two touches (*sparsh*) out of the basic four; positive-negative (*Snigdha-Ruksha*) and hot-cold (*Ushna-Sheit*). Author has carefully christened them as 'dion' by their virtue of having two touches. Though these dions could be of infinite varieties depending upon the qualities they possess, they can be sub-categorised in four broad types depending on which two touches they inherit out of the four available:

**Type1** – combination of positive and hot

**Type2** – combination of positive and cold

**Type3** – combination of negative and hot

**Type4** – combination of negative and cold.

It must be noted here that there is a restriction on having both the touches of the same pair. Another important observation is that all the four broad categories mentioned

above have three other attributes, namely, taste, hue and odour. Infinite varieties of dions stem out of the fact that the quantity of the attributes in them may range from one unit to infinite units.

#### **(ii) *Chatur-Pradeshi Skandh* or Quadons**

These *pudgals* are one step higher in the hierarchy. Two or more dions combine to form 'multi-touch clusters' typically named as *Bahu-Pradeshi Skandh* in the Jain literature. These clusters, now, can possess all the four touches thus are christened as quadons. These quadons, since are made up of multiple dions, have all the four touches, namely, positive-negative and hot-cold. Quadons could comprise a minimum of two and up to a maximum of infinite dions. When there are infinite dions joining together, it is known as '*Anant-Pradeshi Skandh*'. These quadons with infinite dions again come together to constitute an entity which is the first step of migration from micro to macro world.

#### **(iii) *Astha-Pradeshi Skandh* or Octons**

From this state onwards, the state of *pudgal* is such that it possesses eight touches—four primary ones, positive-negative and hot-cold, and four secondary touches namely, light-heavy and soft-hard. **Out of the four secondary touches, the former two are responsible for the constitution of mass of the octons.** It, thus, turns out that the Jains do not consider mass as the primary property of a *pudgal*, but it manifests only after the formation of octons from the relatively massless quadons.

### **4. Physical Nature**

#### **(i) *Sukshma* (Micro)**

As far as dions and quadons are concerned, they do not have light-heavy attributes, and are thus mass-less. They are so subtle that they do not obey certain principles of physics. One important example is that they are capable of attaining infinite speeds far beyond the physical limit of the speed of light.

After treating mass as essential quality of matter, even science is convinced that certain facts can be explained only if mass-less particles are treated as realities. Scientists are already discussing some such particles like photons, gravitons and gluons. Once the scientists are able to work out the entire set of physical laws applicable to such mass-less particles, it will revolutionize the way we understand physics. Hopefully, many enigmatic questions will be answered then.

#### **(ii) *Badar* (Macro)**

When the *pudgals* achieve their third state of octons, they start manifesting mass. From this stage onwards, they come in the realm of human perceptions and predictions. Octons are, therefore, referred to as *Vyavaharic parmanu* also. In this state, they become comparable to the atoms as known in modern science.



### (iii) Qualities

It is a very interesting Jain doctrine that the qualities of matter like Big-Small, Micro-Macro, Light-Heavy, Long-Short, Integrated-Fragmented, Radiant-Dark, Hot-Cold etc. are nothing but the types of *pudgals* only. Besides, these *pudgals* may vary in shape also. To consider all substances and all properties as *pudgals* indicate the deep insight of Jain philosophical knowledge.

### (iv) Association with Soul

There are various groups of octons attached to the *Jiva* (soul). In Jain Philosophy, there are eight sets of quadons and octons which are related to the bio:

- Set of Octons forming mortal body (***Audarika Vargana***)
- Set of Octons forming transformational body (***Vaikriya Vargana***)
- Set of Octons forming projectile body (***Aharaka Vargana***)
- Set of Octons and Quadons forming respiration (***Swasoswas Vargana***)
- Set of Quadons forming thought (***Vachna Vargana***)
- Set of Quadons forming Mind (***Mana Vargana***)
- Set of Quadons forming Radiance (***Taijasa Vargana***)
- Set of Quadons forming Karmic body (***Karmic Vargana***).

In Jain philosophy the relation of soul and *pudgal* has been elaborately discussed.

Body, speech, *manas* or internal organ, in-breath and out-breath-these are benefits due to *pudgala* i.e. these are functions of *pudgala*. Distress, pain, death - these too are due to *pudgal* which are harmful to *jiva*.

The activities of speech and mana (mind) are also operated by *pudgal*. Jains have put forward, the karma theory through which they explain that due to manifestation of some type of karma, the activities of the body take place. *Bhasa, mana, prana* – these are all found to suffer obstruction and suppression through the instrumentality of *pudgal*.

Of the numerous functions of *pudgal* some are enumerated here, which prove beneficial or harmful to the *jivas*. All the bodies of the types *audarika* etc. are certainly *pudgalika* – that is, are certainly made up of *pudgal*. And though the karmic body is suprasensuous it yields fruits like pleasure, pain etc. when conjoined with another *murta* substance of the type *audarika* etc.— just as paddy seed yields fruit when conjoined with water etc.; hence it too should be considered to be *pudgalika*.

Of the two types of *bhasa* or speech that of the *bhava* type is a specific capacity which is acquired as a result of the particular type of the *karmas*, since it is dependent on *pudgal*, is *paudgalika*. And the aggregates belonging to the material-grouping of the

form of speech that are converted into speech when impelled by a soul possessed of the capacity in question constitute speech of the *dravya* type.

**Manas** of the bhava type in the form of **labdhi** and **upayoga** are **pudgalika** because it is dependent on **pudgal**. On the other hand, those aggregates belonging to the material-grouping of the form of *manas* which, as a result of the particular type of the Karmas prove beneficial to a soul in its task of considering the merits and demerits, memory etc.-that is, which stimulate the capacity of this soul-constitute **manas** of the dravya type. Similarly, **prana**-that is, out-breath, which a soul expels outwards from the abdomen and **ucchvasavayu** or **apana**-that is, in-breath, which a soul conveys inwards into the abdomen are both **pudgalika**; and inasmuch as they are life-giver they prove beneficial to a soul. **Bhasa, manas, prana** and **apana**-these are all found to suffer obstruction and suppression. Hence just like body they are all doubtless **pudgalika**.

The transformation of a *jiva* of the form of easement is pleasure and it is produced through an internal cause of the form of special type of karma and an external cause of the form of the concerned substance, place etc. Distress, verily is pain and it is produced through an internal cause of the form of impure karma and an external cause of the form of the concerned substance etc. The continuance of out-breath and in-breath in the case of an embodied soul as a result of the manifestation of *ayukarma* is life, the discontinuance of out-breath and in-breath is death. All these modifications — pleasure, pain etc. are produced in *jivas* through the instrumentality of *pudgala*. Hence in relation to *jiva* they are treated as benefits due to *pudgala*.

#### (vi) **Pudgalastikaya**

*Pudgalastikaya* represents the entire macro and micro form of the *pudgal* present in the universe. The expression **astikaya** with **Pudgala** is significant. According to Schubring the liberal version of **astikaya** is 'mass of all that is'. The Jain philosopher's differ and postulate six *dravyas* (substances) of which the five, namely *jiva, dharma, adharma, akasa* and *pudgala* are **astikaya's**. **Astikaya** means a substance that a continuation of indivisible space points (*pradesas*) has an extended body.

#### (vii) **Two forms of Pudgala**

- *Parmanu* – The atom
- *Skandh* – Clusters, *Mahaskandh* – Sometimes prevail throughout the Universe.

#### **PARMANU**

- *Parmanu* is the smallest and indivisible part of *pudgala* when it is in free-state.
- *Parmanu* – *pudgala* is only *dravya* bearing any physical character.

*Parmanu* has one kind of taste out of five tastes, one kind of smell out of two smells, one kind of colour out of five colours and two kinds of touch out of eight touches.

*Parmanu* is eternal, indestructible, ungraspable and ultimate particle.

*Parmanu* is so subtle in physical nature that its characteristic qualities cannot be experienced through senses. Owing to the fineness of its structure by which it eludes observation, it is beyond the grasp of tools.

*Parmanu* is very subtle and cannot be seen but Jains have termed *parmanu* as *Murta dravya* i.e. with form because of its characteristic qualities of colour, taste, smell and touch; hence *parmanu* can be perceived through intuition or superior apprehension.

The *parmanus* give rise to different species of *skandh*, *parmanu* has no physical parts (*pradesa*), whereas a material body – *skandh* necessarily has.

Another peculiar feature is that an infinite number of *parmanus* can find room in the same space-point that is occupied by a single *parmanu*. Scientifically it is perhaps due to the existence of curvature in space-points. The reason provided in Jain literature is that – every *pudgala* has a minimum and maximum of expansion. The maximum expansion is equal to the innumerable space-points of *Lokakash* and the minimum expansion is equal to the one space point i.e. one *pradesa*.

### **Skandh – Clusters**

*Parmanus* are necessarily the ultimate constitutive cause of compounded material bodies. *Parmanus* of any number beginning from two upto infinity result in forming a cluster. These compounds are known as **Skandhs**. Two atoms may combine to form two **pradesi skandh**, three atoms may combine to form three **pradesi skandh** and numerable, innumerable and infinite atoms combine to form **sankhayata, asankhayata** and **ananta pradesi skandh**. **Skandhs** can also be produced by disintegration of a bigger **skandh** into smaller **skandh**.

**Skandh** are categorized in three divisions:

- **Skandh** – Aggregate
- **Skandh desa** – Aggregate related to Area
- **Skandh pradesa** – Aggregate related to continuity with similar atoms.

**Skandh** formation depends upon the process of bonding where the intensity of smoothness (*snigdha*) plays an important role whereas in disintegration or separation process, the attribute of roughness becomes important.

There is a classification of matter based on size of the *pudgala*.

There are six divisions:

- Very Gross
- Gross
- Gross Fine
- Fine Gross
- Fine
- Fine Fine

The gross part of matter is known as *badra* and the fine part is called the *sukshma*.

Fine-fine is an example of karmic particles. Between the fineness and its opposite there runs the dividing line which separates this concrete world from the one beyond sensual conceivability.

Combination takes place on the ground of smoothness and roughness only.

A *pudgala* aggregate does not originate merely from a mutual conjunction of its components like atoms. When smooth and rough components join together, there takes place a combination that is transformation of the form.

#### **(viii) Parmanu and Scientific Atom**

Though *parmanu* and the scientific term atom are said to be synonymous, they differ in certain aspects. Atom has been defined as a smallest particle of the element; even then atom is constituted of electron, proton and neutron. Further, an atom can be converted into the form of energy. Hence, the ultimate *parmanu* cannot be compared to atom.

In Jain literature, we find the reference of two types of *parmanus*:

1. Ultimate *parmanu*
2. Formal (*vyavharik*) *parmanu*.

The second type of formal *parmanu* may be equated with the atom of science because formal *parmanu* is constituted by the combination of infinite ultimate *parmanus*.

#### **(ix) Exceptions**

Combination does not take place between smooth and rough components of a minimum degree, that is, between components whose smoothness or roughness - as the case might be - is of a minimum degree. (Minimum means one degree intensity)

When the degrees concerned are equal, combination does not take place between similar components - that is, between one smooth component and another, as also between one rough component and another. Combination well takes place between components whose degrees differ by two units or more.

The following chart gives out the net regulations of combinations.

Units of Intensity	Same Kind	Opposing Kind
1+1	No	No
1+2	No	No
1+3	No	No
1+n	No	No
2+2	No	Yes
2+3	No	Yes
2+4	Yes	Yes
2+n	Yes	Yes

### (x) Massless Matter

There are many aspects of existence which Jain philosophers have described and explained ahead of the researches of modern science. One of them is the concept of 'massless matter'. Ancient Greek and Vedic philosophers believed that all matter in the universe was made up of four basic elements earth, air, fire and water. Aristotle argued that two forces acted these elements on gravity and levity. The tendency of the earth and water to sink is due to gravity and the elements air and fire rise due to levity.

Jain philosophers were the first one who believed that all the material existence (*pudgala*) could be divided into two categories:

- One carrying the mass – gross matter.
- Other carrying no mass – massless – fine matter.

The concept of massless matter has been elaborately discussed under the name of *sukshma pudgala*. *Sukshma pudgala* has four varieties of tactility (touches) out of eight forms of tactility. We have earlier described the characteristic modes of *pudgala*. Under the head of touch characteristic, eight types were described. They are:

Cold	Hot
Smooth	Rough
Soft	Hard
Light	Heavy

The *sukshma pudgala* have only four touches – i.e. cold, hot and smooth, rough and therefore, such *pudgala* do not have the property of light and heavy i.e. they have no mass.

Upto the beginning of the 20th century, Einstein firmly believed that the 'mass is matter and matter is mass'. But in the sixties of 20th century force carrying particles like photon, graviton and gluon have been considered to be nearly massless. Still the concept of massless matter has not taken a firm footing in the field of science. Till then, it is not possible to explain the tremendous velocity of certain particles.

According to the Jains, the *parmanu* can move from one end of the universe to the other end, in a unit fraction of time. It means that the Jain concept regarding the velocity of *parmanu* is much greater than the velocity of light. The difficulty with the modern scientists is that, they have categorized the material particles on the basis of proper mass and velocity whereas Jain philosophy discusses massless fine *pudgala* on the basis of the intensity of smooth and rough tactility. It is interesting to quote the heading, which has appeared in press 'what is faster than the speed of light; light'

In an experiment in Princeton, New Jersey, physicists sent a pulse of laser light through caesium vapour so quickly that it left the chamber before it had even finished entering. It can happen only if the particle moves with a greater speed than light.

*Pudgal* in its largest form is called *Achita Mahaskandh* – an omnipresent inanimate entity. However, such *Mahaskandh* manifests itself in the rare of the rarest circumstances and that too for a few moments. As this event is singular to the Jains, it needs elaboration.

#### **(xi) Inanimate Mahaskandh**

**Inanimate Mahaskandh** is a form of *Pudgal* which spreads throughout the universe. This has been described in the process of **kevali-samudghat**, a phenomenon exclusively credited to the Jains. **Kevali-samudghat** happens only to those liberating souls who are left with little life span and the period required for emancipation of karmic matter is relatively more. In such singularly abnormal cases following sequence of events takes place :

1. The soul expands in the entire universe in such a way that each *pradesh* (smallest unit) of soul penetrates in each *pradesh* of Universal space, in eight moments (*Samaya*). The soul expands in X, Y, Z, axis in three moments and takes one more moment in filling the border space of *Loka* and *Aloka*. In next four moments soul retraces its path. It all happens and no effort is required. The reader is advised to read Agamic literature to understand the relationship of space and time.
2. Simultaneously, the existing karmic *pudgals* also inflate and get dissociated from the soul permanently.
3. Unlike other religions where it is said that the liberated soul amalgamates with God, Jains believe that the soul squeezes back to its normal size and re-enters the body leaving behind the network of karmic *pudgals* in the universe as a

snake sheds its slough. This left behind network of karmic *pudgals* is called inanimate *Mahaskandh*.

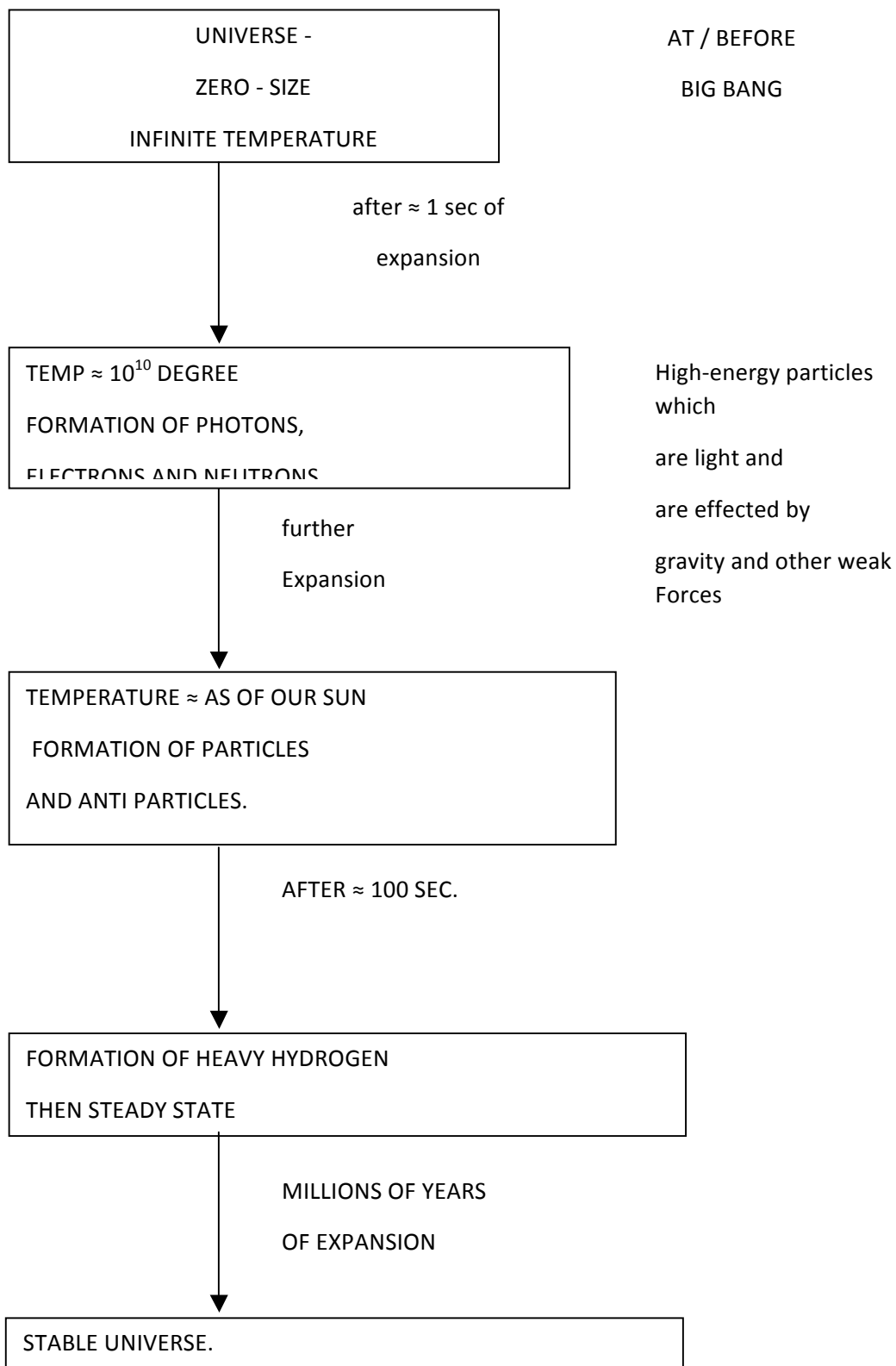
4. The next moment, the liberated soul migrates to the designated abode of Siddha.

It is the ingenuity of Jainism that it assigns equal capabilities of expansion to both the vigorous soul as well as the inanimate matter. It also accepts the existence of infinite number of individual liberated souls instead of all souls integrating with ONE *Paramatma*. In scientific terms, it may be called 'the singularity'.

#### **(xii) Singularity**

The theory of Big-Bang is prevalent in the scientific world to explain the formation of universe. In it, scientific term – singularity - has striking similarity with the process of *Kevali-Samundghat*. Amazing conditions of zero volume, infinite temperature and density are believed to exist prior to the universe formation. In the initial moments of Big Bang, the temperature is said to be lowered to  $10^{10}$  degree C in a fraction of a second, and in next few seconds the particles and antiparticles formed to give shape to the universe. According to Einstein, Big-Bang and Big Crunch, both are singularities where no laws of physical sciences are applicable. He has called this phenomenon as a singularity of space-time.

Jain philosophy has dwelt into the realms of cosmic universe as much as it did into the micro world of massless *pudgal*. Its explanation of finite universe constituted of *Dharmastikaya* and *Adharmastikaya*. Duo deserves a keen study by scientists.





## CHAPTER - 5

# PHILOSOPHY

### Introduction

Philosophy is the rational investigation of truths and principles of being, knowledge or conduct. It is a critical study of the basic principles and concepts of a particular branch of knowledge. Some believe philosophy is the "Love for Wisdom".

Although all civilizations have a long history of philosophic discourse, Indian philosophy has been one of the greatest civilization achievements down through the ages. India has been the home of major movements in the world of Eastern philosophy, from the Upanishads of the six schools in Indian philosophy to the various Jains and Buddhist philosophical texts.

Substance has infinite modes, thus, the field of philosophy is infinite. Truth is not confined to the already known and is much more than all we know today. Known truth is simply a small land in a vast ocean of unknown truths. Thus, it is said that the voyage of philosophy is a never-ending journey.

### Narration

We are passing through an era of discord, friction and conflict. If we get confined to the ideas of the philosophers of the past, we will not be able to progress further and investigation of new modes will be brought to a halt. Situations change with the passage of time and changes take place at the mental and psychical levels. By exhibiting those changes in a philosophical pattern we not only widen the boundary of knowledge but develop creative power as well. It is therefore, necessary to rethink about the existing systems of philosophies.

One of the important points to rethink is that philosophy is not only confined to metaphysics. By analysing its relation with the conscious and unconscious world and various disciplines related to life, philosophy can bring about a revolution in the field of its utility and non-utility.

One of the aspects of Philosophy is to search out and propound universal laws. One of the aspects of science is to work in the restrictive field of the physical world. It has barely touched the field of consciousness, and hence, there is a great need to rethink philosophy today.

## Jain Philosophy

*Anekantvad* is the bedrock of Jain philosophy. *Anekant* simply means viewing reality or truth from diverse perspectives and thus inculcating a tolerance for other viewpoints. When this happens prejudices subside and the tendency to accommodate increases. This thought is the need of the hour in the present world scenario where one religion is up against another and one nation against the other.

The Jains narrate a story about seven blind men and the elephant. All the blind men surrounded the elephant and touched its body. Somebody got the ear of the elephant, and others got the trunk or the tail or some other part of the body. The person who caught the leg of the elephant said that the elephant was like a pillar and he who caught the trunk said that the elephant was like a python and in this way every blind man asserted that his description alone was correct. The Jains say 'Only who can see the whole elephant can say the truth'. According to Jains, a particular mode appears only in a particular set of conditions with changed conditions there will be another mode of existence of that thing. So all our knowledge of a thing at particular spatiotemporal locus is conditional and relative to the circumstances.

The concept of *Anekant* states that each object of knowledge is found with infinite attributes, modes or *paryayas (gunas)* so the knowledge of the nature of every object should be viewed from different angles, the truth of every item should be known through numerous paths just like how all radii of a circle confluence at its center. Truth is one, singular and unique but there can be more than one way to arrive at it. *Anekant* is a form of knowledge and *Anekantika* is the object of knowledge. In other words, it may be mentioned that *Anekant* is an application of non-violence in the sphere of thought and helps us in resolving many problems of our day to day life and also provides mental peace.

### 1. Examples of *Anekant*

- (i) Whenever we say that the colour of the leaf is green, it means that the leaf absorbs all the colours of white light that falls on it except the green one. These light waves enter our eyes and travel to the brain which interprets it as the green colour and that is what we perceive. We do not see the colour of the leaf. We see the mental image of the colour of the leaf. Whenever we see, hear or touch anything, corresponding sympathetic vibrations are created in our mind. It shows that the senses observe the properties of the object only through the mind. There are many realities in the universe.
- (ii) Let us consider a coin. What is its whole truth? It has infinite radii, infinite points on its circumference, countless atoms, and so on. While we are seeing the head, the tail cannot be known and vice-versa. Even it is not pure in its material

composition. So, the Jain *Acharyas* cautioned their disciples that whatever is being observed is only a partial truth pertaining to a relevant situation.

- (iii) Let us try to describe the height of a person. He may be taller or shorter than another. It necessarily means that the description of height cannot be completed until it is measured with respect to some standard reference. Again, in their zeal to follow the path of pure truth, Jain *Acharyas* found to their amazement that the truth not only changes but it also turns topsy-turvy when the reference itself is changed. They, therefore, postulated that :

## 2. Postulates of *Anekanta*

- (i) Whole truth exists but can neither be perceived nor is it expressed wholly.
- (ii) As our perception, thought and expression are sequential in time and space, we can express and grasp only partial truths.
- (iii) All descriptions of an object or situation are subject to the chosen reference. It is like a person in England says India is in the east while another one in Tokyo says India is in the west.
- (iv) Sequential time and space are due to our limited speed of perception. *Kewali*, on the other hand has infinite speed of spiritual perception resulting in the capture of the whole truth of the entire existence in zero time.

Jain literature describes that the *Kewalis* and *Tirthankars (Arhats)* have infinite knowledge.

A very important and powerful corollary of the *Anekanta* principle is that it leaves vast space for various viewpoints to be true. While one may be partially true, others too have equal, if not more, chance of being true.

It is like two persons standing on different radii of same circle and traveling towards the centre. Both are treading entirely different paths but arrive at the same destination. It is certain that there cannot be a only single path for achieving the Truth.

In the spiritual world the principle of *Anekant* has been successfully applied to the mutual relationship between the body and the soul. The Jains believe that substance is permanent but its modes are changeable. The soul is permanent but its mode, the body of a living being is changeable. The Jains again mention a dialogue, which took place between Lord Mahavira and his first disciple Gautama. It was initiated as follows:

**Gautama:** "Is the soul permanent or impermanent, O Lord?"

**Mahavira:** The soul is permanent in some respect and impermanent in another respect.

It is permanent in respect of its substance, which is eternal and it is impermanent in respect of the modes, which originate and vanish.

### 3. *Anekantvad* in Scriptures

According to Alsdorf the beginning of Jain monastic learning and scholarship originated and developed from the needs of transmitting and handing down to pupils the explanations of the sacred scriptures of Jainism. Jain *Acharyas* with a view to providing a scientific justification to the old inherited literature gave special emphasis to methodology establishing the distinctive trait of Jain scholasticism. Philosophically, the most scientific and efficacious part of the methodology is the theory of non-absolutism i.e. *Anekantavada*. According to Jain logic *anekant* accepts both the substance and the various modes ultimately as true. This is how the doctrine of *Anekanta* became the central thesis of Jain Philosophical thinking.

We find that Sthanang Sutra where the *Jiva* (Soul) is defined in several alternative ways, elaborates this:

- *Jiva* is singular to each animated being
- *Jiva* could be of two types: Bonded with Karmas or Liberated
- *Jiva* has three properties: Origination, Transformation and Perpetuity and likewise there could be 10 different ways of looking at it. These statements succinctly express the essence of Jain philosophy.

Jain scriptures also use familiar terms such as *Syadvad*, *Nayavad*, *Nikashap*, *Tribhangi*, *Chaturbhangi*, *Saptabhangi* and four *Anuyogas*. All of these methodologies are inter-related and have contributed to explaining the reality/truth with a strong tradition of rationality.

#### Co-opposites

*Anekant* is a multisided perception theory where it explains the existence of some attributes that appear to be mutually contradictory or opposite and co-exist in the same object, each dimension being as plausible as another. It is with relation to other factors like time, place and context that one dimension gains predominance over another.

*Anekant* pronounces that the 'whole' is a sum total of two opposites. These opposites do not cancel each other; instead, they are complementary and add up to make a whole. A student of science would thoroughly know that if there is matter, anti-matter will be equally abundant. Opposites are actually two faces of the same coin whose true and clear picture is only complete when both faces co-exist together at the same place at the same point in time.

*Anekant* can mitigate several confrontations among different sects, societies, states and nations. Hence, it exhibits tolerance to other faiths to the extent that whoever follows

the path of *Anekant* finds peace and happiness and in turn contributes to the wellbeing of all life forms in the world.

The term '*Pudgal*' is extensively used to describe the constitution of matter in Jain literature. Today, scientists use similar terminology for quarks and other micro particles. They have assigned various basic properties to these particles like frequency, spin, etc. Identical references are available in the Jain literature regarding the basic tenets of '*Pudgal*' which are, *Varna* (colour), *Gandha* (smell), *Ras* (taste), and *Sparsha* (touch). *Sparsha* has been further classified into four opposite pairs:

- i. ***snigdha-ruksha*** (degrees of smoothness)
- ii. **light-heavy** (measurement of weight)
- iii. ***sheet-ushna*** (degrees of temperature)
- iv. ***mrudu-karkash*** (readiness to interact).

In any composition of matter, presence of opposite pairs is essential. The entire universe is based on the co-existence of opposites.

**Sthanang, Nandi** and **Dashvekalik Sutras** contain plentiful descriptions of opposite couplets. Mentions of pairing opposites are abundant in the 1st and 2nd sections of **Sthanang (Thanag) Sutras**. Fourteen axioms are stated in the opening paragraph of the 1st chapter out of this 5th to 14th are of special interest in the context of co-opposites.

The heading in the first paragraph of the second chapter of *Sthanang (Thagn) Sutra* is '*Dvipadavtar*' which means duo. It says everything under the sun appears in pairs. A few examples are, '*Jiva-Ajiva*', '*Trus-Sthavar*', '*Dharma-Adharma*' and '*Vedna-Nirjana*'.

Similar pairs are mentioned in **Nandi Sutra**. Seven pairs of '*Shrut*' are described therein.

In the **Dashvekalik Sutra**, four key human emotions, Anger, Ego, Affection and Greed are prominently discussed. The sutra states that these emotions co-exist with contrasting feelings. Anger can be diluted with forgiveness and Ego with humility. Affection is a kind of bondage and can be countered by equanimity. Finally, Greed can be overcome by the feeling of contentment. The entire gist of this discussion is that co-opposites exist.

Hence, Jains do not see things in black and white only. Their vision is not only restricted to true and false but the third dimension of relative truth is added to it. All thoughts and alternatives are just diagonals of a circle, all are equal and identical.

In an obvious conflict, there exists definite co-ordination and in cases of harmony exists apparent conflicts. This is the very basis of co-existent evolution.

## 5. Duality

The duality of apparently contrary attributes in substance found that they enjoy mutual concomitance. Some of them are as follows :

- Universal and Particular
- Permanent and Impermanent
- Existence and Non-existence
- Speakable and Unspeakable.

These axioms of *Anekantvad* help us in understanding the philosophy of Jainism. Let us discuss one of the above axioms, Permanent and Impermanent, as an example:

According to this principle, no substance in this world is forever permanent or impermanent. Every substance has an intrinsic harmony between the permanent and impermanent. The existence of reality is eternal and so it is permanent but is not without transformation and transformation is not without the eternal. That is why it is permanent. It emerges into one form and changes into another after a certain period of time. Therefore, every substance is the integration of three characteristics, namely origination, destruction and the eternal. The origin of behavior patterns which we observe is traceable to *Anekant*. In its absence, the modes and patterns of life remain dysfunctional. Without exaggeration, *Anekant* is indispensable to understand the smallest aspects of our life.

By logical extension so long as the perspective is in the form of an idea, it is *Anekant* and when the perspective wears the dress of speech it becomes *Syadvad*, and when it assumes the form of conduct, it becomes non-violence.

## 6. Comments

Hermann Jacobi, a German Indologist has pointed out that the theory of *Anekant* opens the floodgates to the comprehension of reality not only in toto but also in different aspects.

Another German Indologist, Professor Aldorsof, said there is no exaggeration if it is said that most of the original Jain contributions to the Indian Scholarship were made in the field of methodology.

The Indian Jainogist Dr. A.N. Upadhyaya said “the approach to reality as adopted by *Anekantvad* strikes an original note in the history of Indian logic”.

## 7. Science and Philosophy

Science and Philosophy are but different modes of acquiring knowledge, one is mainly speculative whereas the other is mainly empirical but both have the same goal i.e. the search of Truth. Truly speaking, they are not contradictory and in reality they derive strength from each other. It is interesting to find that some of the theories of physical sciences are in tune with the theory of *Anekanta*.

### (i) Theory of Complementarity and *Anekantvad*

The principle of Complementarity is the most revolutionary and significant concept of modern physics. The Western philosophers and scientists had a lot of difficulty in understanding and developing quantum mechanics. The contradictory results indicated that photon (or electrons) sometimes behaves as a particle and sometimes as a wave. This could not be reconciled because of the basic problem that wave and particles were considered to be exclusive or different. Bohr explained it by saying that contradictory behavior is complementary but exists together and is required for completeness. This interpretation of the Principle of Complementarity is similar to the theory of *Anekanta*. According to *Anekant*, being and non-Being, Universal and particular, permanent and impermanent exist together and are required for the completeness of Universe. This is the Reality of nature.

### (ii) Heisenberg's theory of Uncertainty

*Anekanta* is supported by the independent system of *Nayavada*, seven possible modes of approach and description, one of which is singled out without regard to the others according to the need and purpose of the case. It implies that the real may be explained and examined from divergent viewpoints. These divergent viewpoints present a comprehensive and synoptic picture of Reality. It is an analytical method.

In the beginning of the nineteenth century, French Scientist Laplace established the doctrine of scientific determinism on the lines of Newton Laws and argued that there should be a set of scientific laws that would predict everything that is happening in the universe including the human behaviour, if only we know the complete state of the universe at one time.

The advent of Law of Uncertainty in 1926 by Heisenberg, signaled an end to Laplace's dream that the Universe could be completely deterministic, because one cannot measure the present state of the universe precisely! To measure the present state of position and velocity of a particle accurately, the obvious way is to shine light on the particle. The use of quantum light in any observation disturbs the particle and changes its velocity in a way that cannot be predicted. Moreover the more accurately one measures the position of the particle, the less accurately one can measure velocity and vice-versa. Stephen Hawking has pointed out that Uncertainty Principle is a fundamental, inescapable property of the world.

*Anekanta* argues that the rational knowledge that occurs at the sensory level always requires some medium i.e. carrier of waves or energy. For example, if some object is to be seen by an eye, a ray of light i.e. quantum of energy is required. Other senses of the body also require the support of some waves for cognition of an object. It seems, therefore, that the cognition at the sensory level disturbs the position and condition of the object i.e. the object changes its *paryaya*. Hence it is correct to say that the same object does not exist in its present state when cognition occurs, because nobody can observe the present state of the universe without disturbing it. This uncertainty of cognition leads to Unpredictability. The Jains have, therefore, termed the sensory knowledge as indirect knowledge. The indirect knowledge can be transmitted through a system of *Saptabhangi*, which deals with Existence, Non-existence and unpredictability. While describing an event, the *sapatbhangi* refers to terms of not only substance (*dravya*) but also to area (*kshetra*), time (*kala*) and attribute (*bhavya*).

The quantum mechanics has gone a step further to suggest that the uncertainty in the position and velocity of a particle should be viewed as a combination of both, that is to say that quantum mechanics does not predict a single definite result for an observation. Instead, it predicts a number of different possible outcomes and introduces a probability factor. Quantum Mechanics has given similar treatment in case of the duality of waves and particles. Where there is dual nature, randomness or unpredictability occurs. The unpredictable, random element comes in only when we try to interpret the wave in terms of the positions and velocities of particles. This description of unpredictability in the field of physical science is very helpful in understanding the '*avaktaya*' of *saptabhangi*.

The Jains have adopted two-tier system of knowledge :

- Sensory i.e. indirect knowledge
- Intuition i.e. direct or super sensory knowledge.

In case of direct knowledge, no carrier of energy is required for cognition. So the cognition occurs without disturbing the present state of the object. Such knowledge is pure and absolute. Whereas, in case of sensory knowledge, the use of carrier energy is required which disturbs the position of the object, and hence it is known as indirect knowledge.

### **(iii) Einstein's theory of Relativity**

*Anekanta* unfolds its vision through *Syadvad*, *Saptabhangi* and *Nayavad*. There is an important relation between *Anekantvad* and *Syadvad* and they are closely interrelated. *Anekanta* relates with the relative nature of infinite knowledge, *Syadvad* relates to its verbal expression; which is always finite. Historically, it is assumed that *Syadvad* or the system of *Saptabhangi* is a later development in Jainism, and the doctrine of



*Anekantvad*, the first and the most fundamental teaching of Mahavira, seems to precede *Syadvad*.

*Syadvad* is the synthetic method of knowledge and insists on making the statements conditionally keeping in mind a certain context. Since all human knowledge is relative, the judgmental and linguistic expression of it has also to contain the relations and conditions, which characterize such knowledge. This is the theory of *Syadvad*, which has been further formalized in the form of *Saptabhangi*. The seven fold expressions are; *Syad-asti*, *Syad-nasti*, *Syad-asti-nasti*, *Syad-avaktavya*, *Syad-asti-avaktavya*, *Syad-nasti-avaktavya* *Syad-asti-nasti-avaktavya*. (*Asti* means affirmation, *nasti* means negation, *avaktavya* means indescribable).

Looking to the criticism of the word '*Syat*' in *Syadvad* or *Saptabhangi* in certain corners, Acharya Mahapragya has emphasized the use of the term '*eva*' in the seven usual propositions (*saptabhangi*) for the popular example of pot, which indicates the definite character of the assertion, or the negation or indescribability or their possible combinations. He further stresses the use of '*Syat*' for the rest of the attributes other than existence in the pot. Acharya Mahapragya has certainly given a new dimension in Jain logic to prevent any controversy regarding the doctrine of *Anekantvad*.

We find that the concept of *anekantvad*, *syadvad* and *saptabhangi* are intimately related to each other and provide the foundation of Jain metaphysics, epistemology and logic respectively.

According to Einstein's theory of Relativity the event is always known with respect to space and time. Nothing is absolute in this universe.

Everything is relative. Hence we can know the event only in the relative terms. Here we find that *Syadvad* and the theory of relativity are similar in nature.

## **8. Conclusion**

*Anekantvad* is a dynamic philosophy of life through which we can lead a life of partnership in peace, in friendliness and societal harmony; it fosters the spirit of equi-feeling, of equity, and of equi-vision. *Anekant* is rooted in the liberal and tolerant understanding of multifarious aspects of truth. Hence, the *Anekant* philosophy is opposed to a blind insistence on accepting one's viewpoint as the representative of final truth. It touches upon almost every aspect of life and envisages a holistic change on the horizon of our outlook, understanding and actions. It provides an integral, a balanced and an effective approach to the solution of problems confronting the humankind today. Thus it has both the promise and potential to facilitate the emergence of a new society based on equality and equity. The Jain philosophy has enriched the freedom of human thought by its principle of *Anekanta*. Jains therefore not only exhibit tolerance to other faiths but also practise it in their interaction and behaviour with others.

## CHAPTER - 6

# RELIGION

### Introduction

Religion comprises a set of beliefs concerning the cause, nature, and purpose of the universe. When considered as the creation of a superhuman agency or agencies, it usually involves devotional and ritual observances. We find that practically all religions contain a moral code governing the conduct of human affairs.

According to the prominent Indian philosopher, Dr. S. Radhakrishnan, "Any serious pursuit of ideas, any search after conviction, and any adventure after virtue arises from resources whose name is religion. The search of the mind for beauty, goodness and truth is the search of God."

Another Indian philosopher, Diwan Chand writes :

- **Science says**, Look outside (towards physical nature)
- **Philosophy says**, Look Inside (towards the spiritual soul)
- **Religion says**, Look upside (towards the liberation of soul through righteousness).

In ancient times, every myth was considered a means of tackling the eccentricities of nature. Gradually the collection of such myths and beliefs became the religion of man. Hence the religion became the ability of man to live in harmony with and influence nature. Throughout the history of mankind, several religions surfaced but not all could survive the test of time. Only those religions could survive which believed in helping individuals, set a living tradition with their scriptures, to attain peace and happiness in life. They advocated and preached spiritual, moral and ethical purity to avoid misery and violence in social life. These religions were accepted and followed for centuries. One such religion is Jainism.

### Narration

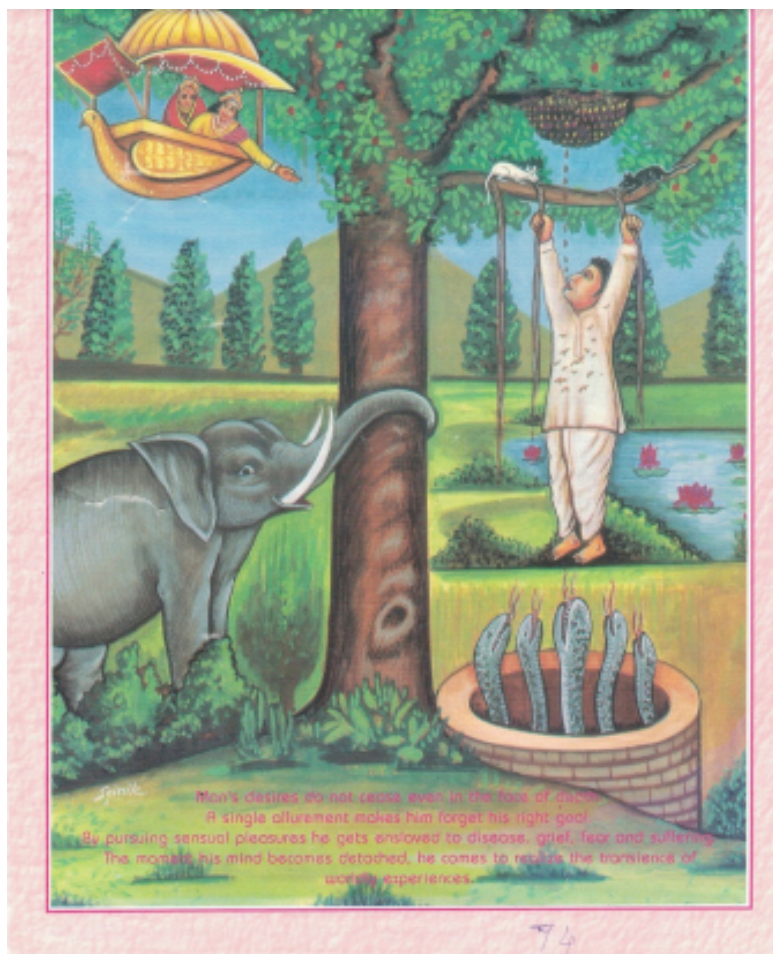
To illustrate the significance of religion, we find a very interesting story of a traveller in the Jain literature.

One day, a traveller was passing through a forest and all of a sudden; a dangerous and deadly elephant started chasing him. He panicked and ran to a nearby tree and caught hold of its branches. Although dangling in mid air, he was grateful to be alive. Just then he noticed the enraged elephant curled its trunk around the tree and began to shake it

with all its might. He was terrified and tried to look around for safety. It was then that he realized that there was a dry well below him from which four terrible snakes were hissing at him, threatening to bite. He looked up and realized there were two rats, one black and one white who were nibbling away the branch of the tree that he was hanging upon, and above that was a beehive from which bees were flying and stinging him.

There was no end to his troubles and he felt he was doomed. Then suddenly droplets of honey from the beehive started to drip on him. He opened his mouth and could not help devouring in honey. Just then a couple of angels were passing through that route on their flying chariot. They saw the traveller's difficulty and offered a helping hand, but surprisingly, the traveller declined.

In spite of all vulnerable conditions leading to death, he was content with the drops of honey and kept saying "Let me taste just one more drop of honey, just one more" With each drop arose the desire for yet another drop. His greatest consolation was the next drop of honey but his craving finally killed him.



[15]

The elephant in this story represents *Mahakala* (the God of death) who chases the traveller to kill; the four snakes represent anger, ego, deceit and greed which are the four *kasayas* (evil emotions) that falsely promise permanent happiness; the white and black rats represent day and night respectively who cut the short age of the traveller; the deep dark well is hell in which one gets trapped and eternally wanders in the world and finally, the bees symbolize family members which hurt man by their stings. The angels symbolizing religions offer to help, but despite being surrounded by sufferings, the traveller chooses to satisfy his sensual instincts by honey.

Man is like the traveller who is deeply involved in sensual enjoyment (*kam-bhog*) of this world like the honey but religion (angels) can bring man out from this death trap. A wise man will choose religion and escape from the eternal cycle of life and death whereas a fool like the traveller in this story will continue to stay trapped in it.

A similar story in Mahabharat (an Indian popular epic) illustrates the folly of people who consider worldly pleasure as supreme happiness.

## **Jain Religion**

The cardinal principles of Jainism propounded by the complete tradition and teachings of twenty four **Tirthankars** are based on non-violence and non-possession. The path of righteousness set-down by the Tirthankars is known as Jainism. During the period of twenty fourth **Tirthankar** Mahavira, Jainism was referred to as **Shraman Dharam** and Buddhist called it the religion of *Nirgranth*. It is believed that after two hundred years of Lord Mahavira, the word Jain came into existence in the time of Acharya Mahagiri.

### **1. Who are Jains?**

Jain means 'a follower of Jina'. All *Tirthankars* are *Jinas*. They have won over the nasty emotions and attained infinite knowledge. The word *Jina* comes from the word *Jin*, a word that suggests victory, victory over the self which means conquest over all bondage of birth and death. The present Jain community follows the principles shown by twenty fourth Tirthankar Mahavira.

It is based on tolerance and peaceful coexistence. Jainism is a religion that sought to do away with the inherent inequalities and injustices of the caste system. It recognized the role of women also. Both the sexes were given equal opportunities in all matters of religion.

Jains have believed that in each half of a time cycle, twenty four *Tirthankars* will emerge, and will preach nonviolence. In this present half-time cycle, the first *Jina* was Rishabha and the last three were Nemi, Parsva and Maharvira, all are historical figures.

## 2. Two categories of Jainism

There are two principal categories of Jainism:

- **Anagar Dharma** (prescribed for the indoctrinated)
- **Agar Dharma** (prescribed for the followers).

The spiritual part of Jainism emphasizes the uprooting of primary passions like **raga** (attachment) and **dvesha** (aversion), which are the very root of all bondages of the soul. One then is able to develop a sense of equanimity. Saints successfully conquer these passions. For an ordinary follower of Jainism, evaluation and monitoring of emotions (attachment and aversion) is required. The goal should be to balance these passions and not to suppress them as every feeling has its value and significance.

At present, Jainism has its own living tradition of **Shramans** and **Shramanis**, scriptures and their millions of followers. In the morning after the prayer, Jain **Shramans** and **Shramanis** deliver sermons on the basis of their classical literature to uplift human beings spiritually and morally at large.

### **Anagar Dharma**

**Shramans** and **Shramanis** are those who have renounced the worldly pleasures and family lives and have pledged to strictly adhere to the five ultimate vows (*Mahavrata*) of non-violence, non-larceny, non-indulgence, truth and renunciation. They abide by these guidelines in totality and even if these rules are flouted inadvertently, they undergo reparation and atonement.

Jain religion categorically denies the existence of any super-natural power or God as a creator and perpetuator of the universe and life. Nature exists and functions according to a set of rules with no scope for anybody's discretion. The responsibility therefore rests on the individual himself to attain liberation. **Sadhu** and **Sadhvi**, observing **Anagar Dharma**, undergo penance and meditation in order to attain *Mukti* (liberation of soul). The Chinese traveller Hun Tsang aptly describes the extent of penance they undergo. He writes in his two thousand year old travelogue, "Jain *shramans* are different from other Brahmins and sadhus in that they live nude. They uproot their body hairs themselves, their skin lakhrate and their heels show cracks as a tree bark." This is an ample historic proof of arduous penances undergone by the *shramans* of Jain sect. It is believed that penance and meditation build determination, generate the heat which in turn shrugs off the Karma bondage. This emancipation eventually results in attaining right-vision, right-knowledge and right-conduct.

## **Agar Dharma**

Jain sect comprises four pillars or *Tirths*. One pair is of *Shraman, Shramani*, and another pair is of *Shravak, Shravika*. Mainly, the conduct prescribed for the latter pair is identical to the one for the former pair but it is just milder in the extent. While the five maxims are called Mahavrata in *Anagar Dharma*, they are called *Anuvrata* in *Agar Dharma*. Along with *Anuvrata*, twelve more guidelines are laid down for a Jain disciple seeking to be spiritually oriented. They practice inhibition of desires and dissociation from karmas. They abstain from wilful violence and perform bonafide activities in their day to day social and professional spheres. For disciples of Jainism, some violence is inevitable during the course of discharge of worldly duties, but they restrain any avoidable act of physical or mental assault. This thin line of 'no-violence' and 'inevitable-violence' separates the *Anagar* with *Agar*. Mahapragya has therefore segregated religion from duty. According to him, "religious conduct is one which leads to self-enlightenment, while the dutiful conduct is one which confines to social obligations. In Jain religion even the minutest act of violence is unpardonable; in a societal set-up such a condition is not applicable."

In addition to philosophy and religion Jains have contributed to different walks of life. We find a long and significant heritage of Indian art and culture; which has kept Jainism afloat through ages. Jains appreciate and love literature and art and believe they are of great help in promoting values of faith. As a result, there are stone inscriptions, the remnants of sacred mounds, cave temples and statues in practically all parts of India. Even till today, numerous temples and images are built by contemporary Jains. Jain temples and libraries (*Shastras* and *Bhandars*) have preserved rich treasures of art and culture, thus for the Jains these are vital living institutions not simply artistic museum pieces.

To effectively inculcate non-violence and non-possession, Acharya Tulsi launched *Anuvrata* movement. He emphasised that right-conduct can be achieved through right thinking. Under this movement, he made his followers to swear:

- (i) Not to accumulate colossal possessions and
- (ii) Not to indulge in any kind of anti-national activity.

The ethical part of Jainism emphasizes the concept of limiting wealth, property and possession to maintain social harmony. Although non-violence is the uppermost basic principle of Jain religion, the principle of non-possession also lies at its roots.

To understand Jain religion, the understanding of the doctrine of non-violence is essential. Some of its contents are as follows:

### **3. Doctrine of Non-violence**

'Hurt or kill not any creature in this world, this is the law of non-violence'

## **Narration**

The twenty second Tirthanker in Jain tradition, Nemi Nath or Arishtanemi experienced a remarkable life-changing event. When he went to marry the princess Rajamati, the daughter of Ugrasena, he heard screams of various animals collectively. He enquired about the roaring noises and was informed that these animals had been brought to be butchered for his wedding dinner. He was agonized to know that so many animals would be slaughtered for his marriage and instantly returned back without marrying Rajamati and renounced the world. This is a very powerful event in history used to depict the lesson of compassion for animals i.e. practice of non-violence. Even till today, it is reproduced and performed in the form of plays and dramas. The Vedic and other Brahminical literature imparts information that Neminath was cousin of Lord Krishna.

Another historic example of non-violence narrated in Jain *Agam* pertains to the life of Raja Prasenjit, who renounced all the worldly activities and became an ascetic. One day, he was standing on the roadside deep in meditation when Raja Shrenik passed him, while going to pay homage to Bhagwan Mahavir. Raja Shrenik asked Mahavira that he had seen a yogi in deep meditation on the way and enquired where he would go if he were to die at this moment. Mahavir said that the yogi in deep meditation was Raja Prasenjit and in meditation he would have certainly gone to Moksha but after Raja Shrenik passed him, some people passing there informed him that his city, Mithila, was burning in flames and his wife, children and countrymen were dying. Raja Prasenjit lost his meditative state and became desperate to go back to Mithila to save his relatives and countrymen. If he died at this point, he would go to hell. But after some time, Mahavira said that Prasenjit had controlled his feelings and believed that he had detached from all external objects. He thought, "Mithila is no more my responsibility. If Mithila burns, nothing burns of mine." Due to his pure mental intentions, he eventually attained Moksha.

These events are historical and represent the true sense of Ahimsa. In Neminath's incidence violence was visually prominent (gross *himsa*) whereas with Prasenjit, the violence arose within him, which is considered a finer aspect of *himsa*. A major characteristic of Jainism is the emphasis on the consequences of mental violence. For one's mind anger, ego, deceit, greed and uncontrolled sense organs are the powerful enemies and keep the souls in this worldly cycle of birth and death.

The oriental teachers several millennia ago propounded the doctrine of Non-violence. Pioneers of Non-violence were Lord Mahavira, Lord Buddha and sages of Upanishads. In modern times, Leo Tolstoy, Gandhi and Jain Saints Vidyanandji, Mahashraman ji taught us how to practice the philosophy of non-violence in our day-to-day life by different methods.

Mahavira's basic postulate of non-violence in thoughts, deeds and actions remains a beacon for the entire mankind. Buddha believed non-violence was compassion and

should be practiced by cultivating right knowledge, right vision and right conduct. Once one has cultivated these virtues, there will be no room for violence.

### **Instances**

We will now include the non-violent thoughts and methods followed in modern times by the great leaders and legends, Mahatma Gandhi, Xunzi, Leo Tolstoy and Acharya Tulsi.

#### **(i) Gandhi's Non-violence**

Gandhiji applied non-violence to improve one's conduct in the 20th century. According to him, non-violence is a way of life based on love and compassion and requires discipline that can be taught through education. He believed "Education that is not rooted in truth and non-violence is no education in the proper sense of the word".

Gandhiji steadfastly avoided violence to the extent that he would be ready to give up his own life but would never take the life of his own opponent. He believed in changing the hearts of his opponents through civil disobedience and mass Satyagraha (fighting for the truth). The concept of Satyagraha is very unique to Gandhiji and he was the only one in history to use Satyagraha as a tool of Non-violence.

Gandhi's determination towards Non-violence even inspired the renowned leaders Martin Luther King and Nelson Mandela, to follow Gandhiji's footsteps.

Here are some alternatives Gandhiji has suggested for overcoming violence:

1. Couple education with the study of non-violence.
2. Train small groups of people at the grass root level non- violence through active and informed participation.
3. Foster international understanding through cross-cultural interactions.

#### **(ii) Xunzi**

Xunzi, a Confucian philosopher, claims that anyone can become good through education and effort. Education turns a man into a gentleman; an intellectual man who is a law-abiding citizen and meets the standards of the society.

Xunzi believed that all mankind is born in evil but is born with a desire to become good and to have order, etiquette, propriety, rules of conduct etc. One only needs to be logically sound and does not have to rely on moral intuitions or instincts to get onto the path of moral development. Again, education comes into play for one to be logical and rational and if an educational curriculum is properly introduced with Non-violence, it can serve the wonderful purpose of peaceful global living.



### **(iii) Leo Tolstoy**

It was in 1884 that Count Leo Tolstoy had spiritual awakening and found the principle of non-violent resistance (which he called “non-resistance”) the key to understand the Gospels, a new understanding of his life and of modern society in his age. Nonviolence became the ethical basis for his doctrine of Truth Force, which was later developed by Mahatma Gandhi in his “Satyagraha” philosophy and Dr. Martin Luther King junior, in his concept of Soul-Force. His strong belief in Non-violence is described by his following quote:

“But I say to you who are listening: Love your enemies, do good to those who hate you, bless those who curse you, pray for those who mistreat you. To the person who strikes you on the cheek, offer the other as well, and from the person, who takes away your coat, do not withhold your tunic either. Give to everyone who asks you, and do not ask for your possessions back from the person who takes them away. Treat others in the same way that you would want them to treat you.”

### **(iv) Acharya Tulsi**

**Acharya Tulsi** educated people through ‘*Anuvrat*’ – a Moral Movement, which focuses on five important rules :

- Do not kill any living being
- Do not steal
- Do not lie
- Do not smoke and deal with drugs
- Do not be involved in misconduct

By adopting these rules in our social lives, it will serve the purpose of maintaining non-violence, human values and preserving the environment. Later on, Acharya Tulsi prescribed '*Jeevan Vigyan*' a course to be taught and practiced to learn non-violent life style through education.

These are the views and beliefs of Non-violence from some of the greatest minds in history. We will notice a similarity between their beliefs: They all give great importance to the role of Education in Non-violence.

Education of non-violence can cover two dimensions :

1. Global breadth
2. And in the depth of the human spirit.

In the age of globalization, members of remote clans have now become our immediate neighbours, in both actual and virtual realities. With the emergence of such global villages arises the need for dialogue on global ethics and intercultural faith. The education on non-violence can serve the purpose of bonding different faiths because

traditional ethical systems were developed primarily to deal with human relationships within a particular ethnic religion and cultural group.

In the depth of the human spirit, education will be most beneficial when it cultivates the principles of non-violence from childhood. Teachings and habits cultivated since an early age will help to keep any violent instincts under control.

Despite the influence of these well-known leaders in the world, there are daily occurrences of violence throughout the globe. People die from wars, terrorism, crime, murders and other such practices. Why does this violence prevail in the world, what are the causes of violence? Some major causes are pinpointed in the next section.

#### **(v) Causes of Global Violence**

An Indian Saint, Mahapragya, believes that the results of modernization have not yet trickled down to the lowest strata of society and an endemic struggle for existence is bound to create a violent social disorder. To Mahapragya, poverty breeds violence and violence breeds instability in the world. In the modern world, we find that the concentration of economic power is in the hands of a few industrialized nations. They misuse and misapply the economic power for their ulterior goals and develop the culture of over consumerism. So how should we curb the pernicious impact of over consumerism?

Consumerism is the result of industrialization and industrialization is the result of applying tools and techniques of science. There are two creations of science: One that has increased the wellbeing of human beings (e.g. medicines, security) and the other that has decreased their welfare (e.g. weapons, destructive objects). If we all collectively decide to follow the path that leads to our safety and wellbeing, we will be able to curb the vicious cycle of over-consumerism.

Our mind-boggling ostentatious way of life is at the cost of other's life. Whatever forms of militancy, terrorism or violence we see around us are mainly due to economic reasons. Frustration is overpowering our unemployed youth, both skilled and unskilled. They are perpetually haunted by economic insecurity. Can we bring about a non-violent, peaceful and stable social order in the face of these economic challenges?

Now it is our turn to ponder over the means and methods to tackle the ever-deepening problem of violence all over world and in our societies and home.

The present Eleventh pontiff of Jain Svetamber Terapanthi sect. Acharya Mahashraman travelling on foot, along with his disciples and followers from one village to another, is preaching about the ill-effects of intoxicants, narcotics and others. This journey has become popular in India and neighboring country Nepal, as *Ahimsa-yatra*.

## CHAPTER-7

# ETHICS

### Introduction

Ethics is the science of conduct and deals with moral principles. The term ethics is derived from Greek word 'Ethos' and the term moral is derived from the Latin word 'mores' which means character and custom. Personal Ethics has three parts which shape the character of a person and society :

- Discipline
- Development
- Dedication

Discipline is negative. It aims at the control of the passions, impulses and appetites, as the gardener prunes the plants. Development is growth, enfoldment of body, mind and soul, expansion and enrichment of Personality to the utmost extent. The root of all improvement is Self-improvement. It is positive, as the gardener makes the plant manure by exposing it to sunshine and air. Dedication consists in the conservation of a disciplined and developed personality committed to the service of humanity as the tree brings forth luscious fruit in abundance. Such is the three-fold task of Ethics.

### Narration

We are aware of the fact that everyone always measures the worth of every subject or object big or small only by its usefulness. Nowadays it is difficult to understand the usefulness of becoming honest, virtuous, trustworthy, and straightforward. If some of our friends from economics or business management ask, what is the use of honesty? What is the use of service and helping others? The reply may be what is the use of keeping your grandparents with you or your family and your children with you? Living with the parents is a good thing, carries the sense of culture, and has nothing to do with the usefulness. There is also a group of persons in the society who believe that the sinful action by anybody is not only condemned by the society but law also has provided punishment for the same. On the other hand no system praises the persons of the integrity and truthfulness. Therefore, the modern man who has come under the overpowering spell of consumerism is unable to distinguish between what is useful and what is good.

## Jain Ethics

### 1. Code of Conduct

Jain Ethics makes a provision for a code of conduct for both householders and ascetics. Jain householders practice the vows to a limited extent of non-violence, truth, non-theft, non-carnality, and non-possessiveness, keeping day-to-day actions open. These vows are known as *Anuvrats*, whereas monks and nuns observe these vows completely. For monks and nuns these vows are known as *Mahavrats*.

Once Mahavira, was staying at Vanijyagrama where the richest man of the area Ananda used to live. Ananda heard the sermon of Mahavira and got influenced by the Jain way of attaining salvation. Mahavira told Ananda to accept the twelve vows of a householder, out of which five are known as Anuvrats. They are as follows:

1. Not to kill anyone. Not to hurt any living being by body, speech and mind. Not to remain the part of intentional violence. Even animals should not be overburdened, or deprived of food and water. This is the first *Anuvrat* known as *Ahimsa* or nonviolence. The violence used in self-defence and in other living activities should be minimized.
2. Never to tell a lie. Never to give a false statement as witness in a court. Never disclose the secrets of others. Never give false advice. This is the second *Anuvrat* related to Truth.
3. Never involve in any theft or burglary. Never evade the laws of the state. The use of false weights and measures is against the ethics of Jainism. This is the third *Anuvrat* related to integrity.
4. Abstain from excessive desire of sex. Remain satisfied with one's own spouse. Never involve in debauchery. This is the fourth *Anuvrat* related to practice of partial celibacy.
5. Limit the attachment to property and money. Control the excessive anger, ego, greed and other internal possessions. This is the fifth *Anuvrat* related to social concept of equality.

These Anuvrats teach a simple religious lifestyle of ethics, giving emphasis to discipline, development and dedication.

Such morals lead to fairness and compassion in the society. The inspiration to avoid fraudulent transactions is possible by practicing the principle of restraint. Similarly the other vows related to other walks of life should be observed.

For ascetics these five vows are to be observed fully, strictly throughout the life.

It is a fact that Jains fall behind in the number game as their religion is centered towards the liberation of soul rather than accumulation of followers. Jain *gurus* and *Acharyas*

concentrate on their self-purification morally and spiritually and seldom indulge in efforts to innovate thought and action for social change due to their rigid conduct rules.

## **2. A new order of *samans* and *samanies***

In contrast to their initial practice of “Non-involvement” in recent years the Svetamber Terapanthi Acharya Tulsi has made important efforts to contact and influence society as a whole. He created the second order of monks and nuns and named them *Samans* and *Samanies*, keeping certain concessions for them so that they may travel to distant places for preaching Jainism by making use of vehicles. The first group of *Samanji* went outside of India, in 1981 to participate in First Vishwa Hindu Sammelan at Virganj Nepal. The photographs of that historical event are reproduced here.



**A delegation of three samaniji's namely: Samani Niyojikaji Smith Pragyaji, Kusum Pragyaji, Madhur Pragyaji and the author and others at the airport of Veerganj, Nepal.[16]**



**The author, Shri Hulaschand Golechha, Dr. Dayanand Bhargava and Mrs. Bhargava are in conversation with Respected Shankracharayaji [18]**



At Rome [19]



At Rome [20]



[21]



ARTO MEETING INTERNAZIONALE «UOMINI E RELIGIONI»  
 PA L'ANSIA PER LE POPOLAZIONI DEL GOLFO PERSICO

# ebole» delle religioni



(foto Luca Turi)



Un gesto significativo: l'accensione dei candelabri della pace

(foto Luca Turi)

prese il suo posto alla guida della chiesa di San Salvatore, lo ricerca come l'uomo armato solo della parola. «Una parola che nasce con vigore per denunciare le ingiustizie, individuare le responsabilità, incoraggiare uno sviluppo del Paese senza esagerati privilegi». Il prof. Andrea Riccardi,

presidente della Comunità di S. Egidio, promotrice del meeting, ha proposto l'immagine di Bari come «il porto di pace» che ha accolto i pellegrini provenienti da ogni parte del mondo e portatori di fedi diverse, offrendo loro ospitalità generosa. Da questo porto di pace essi ripartono, creando

un'onda lunga destinata a raggiungere terre e genti lontane.

L'arcivescovo di Bari-Bitonto, mon. Mariano Magrassi, si è augurato che «la nostra generazione possa risolvere l'affermarsi nel mondo di un ordine nuovo, con la pace ab-

Sia qui le parole, ma i gesti si sa, hanno un valore non solo rituale. L'accensione dei candelabri della pace e l'abbraccio fra i capi religiosi (ma anche fra il popolo), sono il giusto coronamento di questo incontro degli uomini che credono, in Oriente come in Occidente.

Domenico Delle Foglie

**In Italy the author participated as a representative of Acharya Shri Tulsi. The local paper reported the proceedings with the above photo in which author was on the stage.**

Since then the travel by *Samans* and *Samaniji's* to foreign countries has increased many times to preach and propagate the doctrines of Jainism.

## (i) Anuvrat Movement

Acharya Tulsi made another attempt for social change through the Anuvrat movement—an attempt to purge corruption from Indian political and economic life. It is well known that a society always functions with a set of concepts, ideas and practices, which were once relevant but have now lost their relevance, and with currently important concepts, ideas and practices. But whether it will tend to be dynamic or stagnant is likely to be determined by the presence or absence of nascent ideas and concepts. Which means that a society to be progressive must produce a group of people who are not only conversant with current modes of thought, techniques and processes, but who are also aware of their limitations and shortcomings, and capable of improving known knowledge and processes through innovation.

## **(ii) Preksha Meditation**

In this light, Acharya Mahapragya has developed the Jain practice of meditation and named it as Preksa meditation in which Jain philosophy has been blended with modern scientific concepts. Surprisingly, Preksa meditation has become internationally popular. It helps in relieving stress and strain. Nowadays, all effective Jain Acharyas, whether they are Digamber or Swetamber, are preaching some social programmers with them. The trends of organizing the functions and seminars on a large scale have increased where they invite political and social leaders. This new trend has helped in widening the area of Jain ethics. Jain Ethics is fully supported by the doctrine of non-violence, but the concept of Non-violence remains incomplete without the support of *Aprigraha*.

## **Aparigrah**

### **Introduction**

*Parigraha* is a technical term used in Indian philosophy in general and Jain literature in particular. The etymology of the word *Parigraha* comes from *Pari* and *Graha*.

'*Pari*' means from all four sides and '*Graha*' means bind i.e. the things, objects, property, wealth and passions that bind the soul from all directions. The absence of *Parigraha* is known as *Apraigraha*.

Mahavira in Sutratangya Sutra calls *Parigraha*, a bondage (*bandh*), and the cause of all our ills. According to Tattvartha Sutra, the characteristic of *parigraha* is '*murcha*' i.e. infatuation (7/17) or attachment. One must note that matter is not *parigrah*, it is the attachment and our passions for it that are of significance.

### **Narration**

There is a thought-provoking conversation between a King and a Queen that one can find in the ***Uttardhayan Sutra*** (Jain Agam).

A well and widely revered pundit, Bhurugu Purohit, had announced that he would initiate into monk-hood, along with his wife and son. In doing so, he would have to leave his property behind. The King had heard this and found that there was no other claimant for the property once Bhurugu Purohit left and immediately decided to make this state property. The Queen, understanding the intentions of the King, commented **"O King, highly bred snakes do not drink the venom that they have already spat out. Why would you want to usurp the property of a Brahmin?"** The King felt ashamed, realizing that clearly, no one praised the person who ate the vomit of another.

Similarly, in another reference of the Uttardhyana sutra, Verse (14/39), it has been indicated, "Let the property of the whole world be at your disposal but it will not satisfy your ambitions and it will never give you shelter".

Jesus Christ had condemned the ownership of possessions and said 'You can take camel out of the needle's eye but you cannot take a rich man through the gates of heaven'.

### **Aparigraha in Jainism**

Complete non-possession for monks and limitation to property and possessions for a layman is a great doctrine of *Aparigrah*.

We are passing through an era of transition in values, volitions and validations. There is a continuously growing trend of movement from limitation to accumulation, mind to machine and inner show to outer show. Every conscientious person is pained to see all this. One has to remember that the inner happiness is more beneficial than outer pleasures.

If we want to preserve the basic identity of Jain religion and culture, we must follow the principle of limitation to possessions and non-attachment. In the basic principles of Jain religion non-violence is uppermost but the principle of non-possession lies at its roots. Respecting other's needs is the slogan of the *Aparigraha* principle.

Mahavira preached the monks to adopt the principle of *Aparigrah* in completeness. A Sage or a Monk is the perfect model of *Aparigrah* because he does not keep any possession and has no attachment with any relations. Mahavira postulated the '*iccha parimana vrata*' a vow of limiting desires i.e. keeping in check the cravings of the men living in the society. A householder cannot give up all his desires and continue to live at the same time, but he can minimize his desires to live peacefully.

#### **1. Two types**

In Jainism, there are two types of possessions, namely internal and external.

**Internal:** The internal possessions are four types of 'passion' – anger, ego, greed and deceit. All of these 'passions' increasingly lead to a sense of 'mine-ness' i.e. possession in all activities.

**External:** The external possessions are classified as living beings - family, servants, animals etc. and non-living beings as wealth, property etc. It seems that the external objects by them are not possessions but the feelings of their ownership is attachment and is *parigrah*.

#### **2. Needs and Desires**

Ascetics are asked to give up all types of possessions and become *Aparigrahi* or *Nirgranth*. They are known as *Mahavratis*, while the householders are permitted to have some possessions according to their needs without getting attached to them, and are known as *Anuvratīs*. The emphasis is on 'the feeling of mine-ness, for the possessions should be absent. Mahavira said, "Do not accumulate wealth." It harms the interest of others. Wealth is a means of satisfying wants but not an end by itself.

“Wealth is for man but man is not for wealth.” According to Jainism you are the master of your destiny, you are the master of your decisions, and also of their effects. You may choose to amass wealth and use it for selfish purposes or decide to use your resources to serve humanity. Whatever you are doing to create wealth is temporary by nature hence use your resources for the upliftment of all the people.

More recently, we heard how the second richest man in the world (2012), Warren Buffet, donated 99% of his wealth to society. He said that he was giving back to the society what the society gave him – he did not get attached to the wealth given by society. People should realize that true happiness does not come from material satisfaction.

### **3. *Parigraha* and Violence**

Mahavira goes further and says that *Parigraha* is the main cause of violence. Violence is an effect while *parigraha* is its cause. He did not distinguish between non-violence and *Aparigraha*. Violent thoughts i.e. of arrogance or attachment promote the tendency to accumulate and when man accumulates, his violent tendencies begin to manifest. In this manner, the vicious cycle of accumulation for violence and violence for accumulation keeps happening. A person obsessed with hoarding, purchasing and consuming may be so blinded in accumulating wealth and material goods that he may turn to lying, cheating, stealing and violence to satisfy this habit.

### **4. Relation to Economics**

Modern economics encourages attachment to wealth. Mahavira on the contrary preached non-attachment to property. According to economics, demand widens the extent of need. The capacity of wanting is larger than that of needing. All desires are not necessarily wants whereas all wants can surely be desires. “Need is less than desire and demand is even lesser than that.” Non-possessiveness supports the autonomy of self-control, of striving to balance our personal consumption of things by rationalizing between our needs and desires. If we ultimately feel we own nothing and no one, we will not trample the ecology on which our survival depends. The “wants and desires” must be reduced and kept in check as much as possible in thoughts, words and action. With the limited resources on this planet, we must be aware of the consequences of our possessiveness. Unchecked possessiveness can lead to great direct harm to oneself, family, society and the environment.

Mahatma Gandhi once mentioned, “There is a sufficiency in the world for man’s need but not for man’s greed.” Similarly, it is said that “Even acquiring the wealth of all the three worlds is insufficient to make one satisfied. One can enjoy the benefits of knowledge only after enjoying the nectar of contentment.”

## 5. Relation to Society

Mahavira was well aware of the fact that economic inequality and the hoarding of essential commodities very much disturb social life and living. These acts lead to the exploitation and enslavement of man. Due to such allocative inefficiencies, life in society can get endangered. Consequently, Mahavira proclaimed that the remedy for the ill of economic inequality is *Aparigraha*. All the means of illegitimate *Parigraha* bring about social hatred, bitterness, and exploitation. The method of *Aparigraha* tells us that one should keep only the possessions that are necessary for one's living and the rest should be returned to society for its well-being. Limiting wealth, essential commodities — all these are indispensable for the development of healthy social life. In a way wealth is the basis of our social structure, and if its flow is obstructed because of its accumulation by a handful of people, large segments of society will remain undeveloped. The hoarding of essential commodities creates a situation of social scarcity, which jeopardizes social life. In order to resist such inhuman tendency, Mahavira incessantly endeavored to establish the social value of *Aparigraha*.

## 6. Lifestyle

Lifestyle, or the way of life, is generally governed by the traditions set by the previous generations. But much has changed in the world during these years. This is an age of the Internet, cell phones, animal testing, global warming, and cultural and religious openness. In ancient times the choices were minimal; faith and traditions were strong. The choices in foods, travel, friends, and places of worship, books, teachers, and professions were extremely limited. In contrast, the present-day world is diverse, complex, ever changing and vibrant. Indeed, at every juncture one faces hundreds of choices. The very faith and actions of those choices remain instinctive and unquestioned in India, and face intense scrutiny by teenagers and young adults. The young adult of today desires to have his own car, personal care products, T.V., Internet for chatting, for Games, to fulfill his eating habits and many more ambitions to be fulfilled, and for this he requires wealth. The challenge before us is – How does one apply the 2000-year-old principle of non-possession in modern life-style? What are the methods that could be used to reduce the hoarding habit of possessions and setting the limits for them?

Every individual develops his life-style based on his personal emotions and on social norms and values. Man is a social being. Society forms a social relationship that sustains life. It is important for every man to establish this relationship. Hence, from the perspective of emotion man is a reality and from the perspective of life-sustenance society is a reality. There is no conflict in the realities of either of them. Man lives comfortably only with the assumption that society is real and keeping this in mind, safeguards social norms and values and starts with his lifestyle accordingly.

In the modern world we find that the concentration of economic power is in the hands of a few industrialized nations. They misuse and misapply the economic power for their ulterior motives, leading to the development of a hedonistic culture. The principle of Non-possession holds good here. A restraint in consumption limits may bring about a more equitable distribution.

Mahatma Gandhi was once talking to Jawaharlal Nehru (the first Prime Minister of India) while washing his hands and face. Nehru was pouring the water into his cupped hands from a jug. Halfway through, it seemed that the water in the jug had finished and Nehru asked Gandhi ji to wait a little while he would go to get more water. Gandhi immediately stopped Nehru from doing this and said that he had always used only one jug and would not take more. Nehru was surprised, he remarked that Allahabad was the land where two rivers flowed, and water was in abundance. Nonetheless, Gandhi commented that no matter how much water was available, he would only use his share without exploiting the resources given by Mother Nature.

### **7. Practice**

The principle of Non-possession should be put into practice. Lifestyle changes when we start to function for a change for something morally and spiritually better in our day-to-day life. For example, the moral guidelines for a trader or a salesman are the following :

- Not to fuz weights and measures.
- Not to adulterate.
- Not to sell imitation after displaying the original.

Such morals lead to fairness and compassion in the society. It is possible to avoid fraudulent transactions by practicing the principle of restraint against our unlimited desires. The inspiration to reduce individual consumption is found in restraint. To use fair means of accumulating wealth, to draw a definite limit to accumulation of wealth and to observe restraint in individual consumption are the primary principles on which the principle of limitation of cravings is postulated.

### **8. Philosophy of *Aparigraha***

The philosophy behind *Aparigraha* is that the notion of possession is illusory. The reality of life is that the property owned by someone today will either be the property of someone else in future, or the person may die and leave the property here for others. Hence, one should work as a trustee, without excessive attachment or aversion for the wealth and the property. Critically, one should not hoard the property.

There is a popular aphorism of Jain Agam that says:

***Appa Katta Vikattaya, duhana ya suhana ya***

***Appa mittamamittam ca, duppatthiya supatthio***

Maker, unmaker of pleasure and pain,

For the soul is the self itself, none else

The soul is a friend or foe, inducing one to good or evil.

In order to limit your wants, one may suggest the following:

1. Money is a means for fulfilment of needs and not an end.
2. Conscious efforts should be made to earn money for the satisfaction of one's needs and not for other reasons, such as to impinge on the rights of others.
3. The limits of resources for the satisfaction of needs, comforts and conveniences of life should be determined.
4. In using the principle of usage in wealth, developing the principle of detachment in the accumulation of wealth should be practiced.

## CHAPTER-8

# ECOLOGY

### Introduction

Ecology is the branch of Biology which deals with the relation between organisms and their environment. The term ecology has been derived from Greek word 'Oikos' which means home. Thus, Ecology is the science of our home, our environment and our planet.

### Narration

In India, Vedic people, in the early stages of their development were worshippers of the powers and forces of nature. Many of the hymns of the Rgveda are addressed to a sun-god, a moon-god, a fire-god or a goddess of dawn, the earth and also their significant attributes, all natural phenomena already captivating man's mind. It has also excited the devotion and imagination of the Vedic poets. These natural forces were gradually transformed into mythological figures and into gods and goddesses presiding over natural phenomena.

### Jain Ecology

Jain ecology has given due consideration to the existence of the natural forces and regarded that life does not exist only in human beings and animals, but also exists in lumps of earth, drops of water, and flames of fire, in breezes of wind and in bundles of vegetation. These five kinds of immobile living beings fulfill their own functions in nature. They are known as one-sensed souls as they only have the sensation of touch. They too experience violence caused to them just as experienced by a human being and hence, the Jain doctrine strongly advocates one to refrain from destroying them. It maintains the moral, ethical, mental and physical values of a civilized society; the Jains pay the highest regard to all forms of life.

Jain philosophy invokes such a commitment as an integral part of the society so that human beings do not mess with the semblance of nature i.e. the embodied souls of earth, water etc. The Jains have cultivated the practice of living non-violently with nature, and helped in protecting the environment and ecology. Jain seers attach great importance to the welfare of plants and have produced sacred laws for the care of the natural world. By postulating the animated character of one-sensed souls, the Jain teachings were ahead of their time and are the predecessors of today's environmental concern of maintaining ecological balance in the world.



The concept of one-sensed souls brought a revolutionary change in the conduct of Jain monks. They took special care to avoid killing or hurting any of these five one-sensed souls. This concept of Ahimsa distinguished the Jain doctrine from the rest.

Let us now go into greater depth of one-sensed souls and their animated nature.

## 1. Jain Scriptures

The Jain scriptures mainly ***Acharanga, Uttardhayana, Dassvakalik,*** and ***Jivajiv Vibhakti*** acknowledge the existence of one-sensed souls. The one-sensed being bodies of the earth, water, fire, air and plants are immobile living beings.

***Acharanga Sutra*** logically describes in detail that one sensed living beings have a sensation of pain and grief if any weapon is used against them. To maintain the purity of the environment, Jain scriptures advice against the indiscriminate use of water, plants, trees and minerals.

### Classification

It is well known that a human body has five senses; Ear, eye, nose, tongue and skin. Their characters are as follows :

- Ear to Hear
- Eye to See
- Nose to Smell
- Tongue to Taste
- Skin to Touch.

It is through our senses that we experience the consciousness of life. The more keen our senses are, the more alive we feel, the more joy, pleasure, pain, grief, ecstasy we feel that brings along the continuum of our life. Jain philosophy provides sensory-based classification of living beings as follows:

**Five senses:** Touch, taste, smell, sight and hearing belong to Human beings, reptiles, birds, fish, amphibians and mammals.

**Four senses:** Touch, taste, smell and sight belong to wasps, flies. Gnats, mosquitoes, butterflies etc.

**Three senses:** Touch, taste and smell belong to ants, fleas, lice, insects, etc.

**Two senses:** Touch and taste belong to Worms, leeches, snails and marine mollusks.

**One sense:** Physical sense of touch belongs to earth, water, fire, wind and vegetation. Living beings with One-sense are of five types.

***Prithvikaya:*** Earthly bodies. They are in solid state.

(eg. Gems, salt, soil, minerals etc.)

**Apkaya:** Waterly bodies. They are in liquid state.

(eg. Dew, water, fog, rain, lake water, sea water etc.)

**Tejaskaya:** Firely bodies. They are in the state, of energy.

(eg. Fire, flame, lightening, meteor, electrical spark etc.)

**Vayukaya:** Airly bodies. They are in gaseous state.

(eg. Wind, circular, air, etc.)

**Vanaspatikaya:** Floral bodies. (eg. Vanaspati, plant life). They are individual bodied and common bodied.

- I. **Individual Bodied:** Plants and most of the vegetation have one soul in one body known as individual bodied, Vanaspati. Examples are fruits, grains, leaves and flowers.
- II. **Common Bodies:** A few vegetables possess a common body where infinite souls live together. These souls have a common medium of inspiration, respiration and assimilation of food. Examples are root vegetables, sprouted pulses and freshly sprouted leaves. Common bodied souls are known as '*Nigoda*', a term very significant in Jain literature. It is believed every soul starts its journey from the *Nigoda* state and may be considered as unicellular organism. They are the earliest form of life. Then the soul develops progressively from one sensed soul to five-sensed soul. This concept of *Nigoda* soul in Jain literature is purely metaphysical in nature, shows the evolution of soul.

## 2. Animate Nature

Mahavira has not only ascertained consciousness in earthly and immobile one-sensed souls but has described their experience of pain as equal to that of a blind man (Acharang 1/28). Like a blind man, the earthly souls also respire, age and feel emotions like pain, grief and excitement (Acharanga Bhasya 37-41).

Of the five immobile forms of life, plants are commonly thought of after humans and animals. Plants undergo the process of ageing. They too have feelings and vulnerable diseases.

While discussing Vanaspati (plants), Acharanga Sutra points out noteworthy arguments that show the similarity between pain and pleasure in a man and a plant:

As the nature of this (i.e. human) is to be born and to grow old, so is the nature of that (i.e. plant) to be born and to grow old :

- As this has reason so that has reason
- As this feels pain when cut, so does that feel pain when cut

- As this needs food so does that need food
- As this will decay so will that decay
- As this is not eternal so is that not eternal
- As this grows so that grows
- As this is changing, so that is changing

(H. Jacobi, SBE. Vol. 22, p.10)

### **3. Scientific aspect for one-sensed souls**

Scientists today have found a startling fact; all sensory organs are nothing but transducers that convert stimuli into electrical impulse. These electrical signals travel up to the brain through the intricate mechanism of neurons and nerves and are then deciphered by the mind. This fact opens up an interesting possibility. It may be believed that in the one-sensed organ soul, the entire body (skin) acts as an integrated sensory organ.

Though Indian Philosophy has always been of the view that plants possess consciousness, in the scientific fraternity, none other than an Indian Scientist, Jagdish Chandra Basu, accepted the challenge, of proving it.

He proved that the chloroplast present in the protoplasm of plants reacts to certain changes in environment. For example, it gets excited when exposed to melody. Professor Vogel went a step ahead and recorded these internal vibrations on a graph. He arrived at the same conclusion; plants have sensitivity. Floral beings are aware of changes in seasons; they too feel hungry or thirsty and have their own way of sharing joy and sorrow.

Another experiment was conducted on tomatoes. It revealed that they send electrical impulses when bitten by insects. These impulses are similar to the ones produced in the reflex nerves of animals. All such experiments have proved beyond doubt that floral form of life is conscious but in a very low magnitude.

Extrapolating on this concept, Basu went on to conduct experiments on metal and grains. All of them undergo the process of ageing. They have feelings and are vulnerable to diseases. The only difference is in their mobility. He established that metal atoms undergo fatigue when under pressure and can be relieved by proper excitation. Moreover, where grain particles are presumed to be life-less, in fact they experience euphoria, despair, jubilation and misery. Finally, he proclaimed that the entire matter in this world has at least some degree of consciousness. All these similarities are well accepted and proven by science and this is where both science and Jainism agree to a very large extent. Unfortunately, his research disappeared in oblivion due to his untimely death.

#### **4. A new dimension of science**

Environmental perils of rapid industrialisation have compelled the modern day scientists to think and act towards conservation of ecology. Their eyes first turned towards the importance of various species of animals. Of late, they have realised that the plants and forests are equally important in maintaining various cycles of environment. Recently conservation-experts have stated that there are more than twenty thousand varieties of flora and fauna which have high medicinal values. There may exist such plants whose extracts can fight cancer or can control the high blood pressure. Our lust for land is resulting in the indiscriminate elimination of these plants. If we do not adopt a rational and balanced view, we may deprive our future generations of valuable assets of environment.

#### **5. Conclusion**

In Jainism, Ecology is the sum total of all aspects (sun, planets, stars, earth, humans, animals, plants, oceans, etc.). They all share a common, inseparable bond. Even if a single aspect is affected, the entire environment is handicapped. For instance, when forests are destroyed rains are affected, droughts creep in and farm outputs are affected. All these in turn affect our economy and humans are the ultimate victims.

Jain Acharyas had a sensitive and creative understanding of the world around them, which has built a reverential mind and helped in protecting the environment and ecology. They enjoyed their partnership with nature and never exploited it. This is how the Jain religion has survived over many centuries the vicissitudes of history and claimed its space despite the other competing faiths in multi-religion and multi-cultural India.

## CHAPTER-9

# CULTURE

### Introduction

Culture is the customary beliefs, social norms and material traits of a racial, religious or social group. It is the set of shared attitudes, values and practices that characterizes a group of people in a place or time. It guides our actions and beliefs in everyday life. Culture also means the advanced development of the human powers, or the evidence of intellectual development (of arts, science etc.) in human society. The unified culture and shared vision helps those who are in search of excellence. In modern times money and power are cultural icons which can seduce us from a true and authentic path. The insight and spiritual leverage may help us to keep life in proper perspective.

### Narration

It is nearly more than two hundred years ago that the research on Jainism started. Earlier, it was believed that Jainism was the offshoot of either Hinduism or Buddhism. It was in the year 1807 BUCHAANAN took a journey from Madras through the countries of Mysore, Canara and Malabar. In his diary he has mentioned about the Jains and their culture. He stayed with a Jain family and observed their daily way of living. He found that the members of the family take bath in the morning and go out to temples, and take the evening meals before the sunset. He observed this culture different from the Hindu culture. The Hindus mostly go out to riverside in the morning and take bath there. In his diary he has often mentioned about the Jains. The contents of the diary were published with the other diary contents of Colin Mackenzie. These publications were immediately followed by other scholars. This is how the research work on Jainism started. The cultural life style of the Jains opened the path for further investigations on the studies on Jain religion and its philosophy.

### Jain Culture

To understand Jain culture and to do full justice to it, we must first look at the history of Indian culture and views as a whole. After all, the Jain community and tradition are just a microcosm of the Indian society and its beliefs. In the ancient India, there was main thrust for high culture, which came from physiognomy of religious leaders who were so self-driven that they directed the destiny of people at large.

It is interesting to know that though the Jain culture and Brahminical culture both had their earliest origins in India even then both are distinct and independent of each other. The Jain culture had a great impact of its fundamental spiritual impulse and ascetic tradition.

### **1. Refrain from Destruction**

The Jain scriptures provide a general vow for all the *Sravakas*-followers, “I will desist from all intentional destruction of all lives. As long as I live, I will neither kill nor cause others to kill. I will strive to refrain from all such activities, whether of body, speech or mind” When one takes this vow, he has made a commitment to a lifelong code of conduct, which he must pay meticulous attention to at every moment of his life.

### **2. Occupation**

We notice that Jains normally do not choose the occupations that involve intentional destruction such as a hunter or fisherman. They rarely choose farming or military occupations and prefer to choose commercial or government services instead. Interestingly, we find that majority of Jains are very good businessmen. Also, the occupations in the field of various crafts, arts and writing jobs are considered to be respectable in the Jain community.

### **3. Way of Life**

The Jain way of life is based on the great vows of Jain Ethics i.e. non-injury, truthfulness, non-stealing, celibacy, and non-hoarding of money and property. They practice religion for individual emancipation or use earned money for welfare of society.

### **4. Vegetarianism**

Although not many Jains formally assume the vows of ahimsa under the guidance of an ascetic, members of the Jain community abstain from consuming meat. Jains also go a step further and place restrictions on eating vegetables that carry innumerable microscopic single-sensed beings like onions, fermented beverages, honey and figs. The refusal to eat meat constitutes the most basic expression of the Jain commitment to non-violence. This has led Jains to become the primary exponent of vegetarianism and has significantly contributed to the eventual triumph of vegetarianism throughout the world.

It cannot be denied that some of Jains belonging to new generation eat meat but that is not the part of their regular food. Modern Jain Society avoids meat for health reasons also.

The scientific analysis shows that red meat has a lot of saturated fats, cholesterol and purine. It lacks vitamins {except B. Complex}.The present studies show that meat consumption is taking a tremendous toll on our environment – whether it is the amount of vegetables, fossil, fuels or water which are required to produce meat, and which could, cause methane emission of cattle. Through meat consumption we ingest negative energy, as we absorb the fear and anger of the dying animal. Hence, meat enhances aggression and violence. Jains, therefore admit that Human beings are superior species, so, should not kill other species.

## **5. Tradition of Long Fasting**

Mahavira practiced fasting for long periods many times, abstaining from both food and water. Jain monks and nuns undergo rigorous fasting as a regular aspect of monastic life. This practice is now a tradition in the Jain community and many households perform long fasts as a major expression of the holy life.

### ***Santhara***

Jain scriptures make provision of long fasting even unto death, known as *Santhara*, in case one is faced with an unavoidable natural calamity, severe drought, old age or an incurable disease. Under such circumstances, *Sadhus* and *Sadhvis* and Jain followers also observe *Santhara*. Prior to the adoption of *Santhara*, one is required to give up all worldly feelings of affection, love, hatred or any type of attachment with the nearest and dearest of the family. One should also seek permission from his Guru, for adopting the *Santhara*. Jains believe that after death, the soul leaves the physical body and migrates to new destiny. At this juncture, if the death occurs amidst auspicious thoughts, it is a holy death. It improves the consciousness of the soul which further leads towards the path of *Moksha*.

## **6. Economic and Social Front**

Economically speaking, we observe that Jains are among the wealthiest Indians. Socially, Jains have set up many schools, colleges, hospitals and research institutions, orphanages and homes for the elderly and the destitute. Jains are enterprising in nature and hence a great number of Jains have even settled in various countries and established many Jain culture forums there. All these activities have positively facilitated the survival and development of the Jain culture through ages.

The image of a Jain is one of peace and goodwill. He is a committed vegetarian who believes in non-violence towards all beings. Noticeably, this is also imprinted on the Indian psyche and is the foundation of all spiritual practices. Indeed it can be said that Jain culture has been a morally uplifting factor in the life of Indian society as a whole. With a humanitarian and compassionate philosophy, Jainism has the potential of achieving universal appeal. A day is not far-off when the Jain religion will be considered as a prominent world religion.

## 7. Holy Symbols



[22]

The holiest symbol of Jains is a simple Swastika. The symbol of the universe as depicted in Jain literature is also decorated in many Jain shops and houses. Another one is a wheel on the palm of a hand, symbolizing Ahimsa. We find eight auspicious symbols known as the *Asta-Mangals*: *Swastika*, *Shrivatsa*, *Nandyavartya*, *Vardhamanaka*, *Bhadrāsana*, *Kalasha*, *Minayugala* and *Darpana*. There are many other symbols related to *Tirthankaras*.

## 8. Language & Literature

In addition to the Agamic literature and other ancient literature, Jains have wielded a great influence on the language of the south Indian state Karnataka and Gujarat. Between the 9th - the 13th centuries, Kannada writers were predominantly of the Jain faith. Pampa, Poona and Ranna collectively called the 'three gems of the Kannada literature' indicated the age of classical Kannada in the 10th century. A Jain monk wrote the earliest known Gujarati text, *Bharat-Bahubali Ras*. The important person in Gujarat Jain history was Acharya Hemchandra Suri who worked on Jain literature which is very much useful even today. Nowadays we find enough literature in English also.

## 9. Pilgrims

Jains have built a large number of pilgrim centers associated with the attainment of salvation of Thirthankars or other Siddhas. They have built them at places where a divine activity took place or places where the other four *Kalyankas* of the Tirthankars took place. These pilgrim centers are frequented by Jains as a part of their spiritual and



religious activities. The pilgrim places are known as *Tirth-Khetras*. The important pilgrim centers ***Kailash, Pawapur, Champapur, Girnar, Satrunjai, and Samvadshikar*** etc. are recognized by both the sects. There are many pilgrim centers in India where Digamber and Svetamber sects worship separately. Mahavirji, Shri Rishabdeoji, Ranakpurji in Rajasthan, Girnar, Pavagarh in Gujrat, Sonagiri, Khujraho in Madhya Pradesh, Hastinapur, Kausambi in Uttar Pradesh, Bahubaliji in Karnataka and many others in different provinces maintained by the Digamber and Svetamber sects separately.

## **10. Festivals**

Jains celebrate four important festivals. They are:

- *Aksaya Tritiya*
- *Paryushana*
- *Mahavir Jayanti*
- *Dipawali.*

### **(i) Aksaya Tritiya**

On this day, the first Tirthankar Rishab broke his long fast of one year and forty days. His great-grandson offered him *Iksurasa* to break the fast. To follow this event most of the Jains do *Varshitapa* (One day eating and one day fasting for one year continuously).

### **(ii) Paryushana**

This is celebrated for eight days during the second month of the rainy season. The last day is celebrated as '*Samvatsari*'. It is a tradition that on this day everybody tries to observe a fast and forget and forgive everybody for the committal of mistakes during the year. This day is symbolic of friendship.

This function is celebrated by Digambers for ten days, known as '*Dashlaksana Parva*'.

### **(iii) Mahavir Jayanti**

Bhagwan Mahavir was born on Chaitra Shukla 13. This day is celebrated throughout the nation and abroad also as Mahavir Jayanti.

### **(iv) Dipawali**

Dipawali is a popular festival observed throughout India. Jains celebrate on the grounds that Mahavira got Nirvana during midnight and the many kings joined in celebrations by lighting the lamps. It is believed that at midnight of diwali, Gautamswami also achieved the full purity of consciousness and got fully awakened by *Kewal-Gyan*. Jains, therefore repeatedly chant the name of Mahavira before midnight and chant the name of Gautamn after midnight.

## CHAPTER - 10

# ART

### Introduction

Art is the creation or expression of what is beautiful. It simply transforms philosophy and religion into practice. It is the product or process of arranging items with symbolic significance in a way that influences and affects one or more of the senses, emotions, and intellect. It is said, 'Art is long, and life is short'.

### Narration

In modern times, Picasso is known as the greatest artist of the world. One of his outstanding paintings is placed in the museum of Paris. It is remarkable to observe that the greatest number of tourists collect before the painting of Picasso to see the art in which a smile of a beautiful lady has been shown.

An interesting incident happened in the life of Picasso. He was a professional artist. So his paintings were available for sale on the shops. Once a lady purchased a painting of Picasso at a high price and properly decorated in her drawing room. Some of the guests commented on the painting that it was not the real painting of Picasso. The lady went to the shop with the painting and made a complaint. Further, she reported this complaint to Picasso himself because Picasso used to live in Paris. After seeing the painting Picasso said 'Lady you are correct but the shopkeeper is not incorrect. My paintings look like duplicate, whenever there is load of work on me. Picasso prepared another painting, a very beautiful one and presented it to the customer lady. It shows that Picasso was a true artist and therefore he gained name and fame.

### Jain Art

Jain art is the art produced for Jains to express Jain fundamentals. Jain art has remained essentially religious. Jain art such as the construction of idols in temples, carving in hills and caves and some of the artifacts is very old. They include manuscripts on palm leaves and paper that cover a variety of subjects highly decorated with paintings, wall hangings, and illustrations from Jain Cosmology. It appears that much care has been taken to predominate Jain ethics in Jain arts.

Jain art has produced intricately carved sculptures, pillars, walls, balconies, ceilings and domes. This is seen in the earlier cave temples such as Ellora, the medieval temples at Khajuro, Dilwara and Ranakpura, and recently consecrated Jain temple in the heart of Leicester, England.

## 1. Temples

It can be said that the oldest temples and idols in India belong to the Jains. The earliest known Jina image, preserved in the Patna Museum comes from Lohanipur (Patna) and is dated the 3rd century B.C. It is also thought that the main image of the Svetambra temple near Nalanda may also date the 3rd century and similar claims have been made for the image in the temple at Valabhi (Gujrat). In every part of India, the Jains were pioneer in instituting the idols in the temples. During Mauryas and Shungs period, the Jain idols constructed were unique. Most of the important caves, viz., Ananta, Ani and Ganesa Gumphas in Orissa were excavated in the 2nd century B.C. The Ananta Gumpha contains many Jain symbols. The architectural style available in the caves of Khandgiri and Udaigiri is unparalleled. After the first century of Christ i.e. the Shung period the Indian idol tradition belongs to three types :

- Gandhar Kala, which developed in North-west India.
- Mathura Kala, which developed nearby Mathura.
- Amarawati Kala, which developed at the banks of Kriishna river in central India.

The archaeological excavations of Kankali mound of Mathura brought into light the Jain stupas, temples and sculptures ranging from 2nd century B.C. to 3rd century A.D., mostly.

Sites displaying Jain art that are worth visiting are: Dilwara temple at Mt. Abu, Bahubali monolith at Sravan Belgola, temples and idols in Madhya Pradesh, especially at Deogarha, Khajuraho and Gwalior and finally elephant caves at Udaygiri Khandgiri.



**Fig. 23 : Rata Mahavir Temple, Hathundi Rajasthan**



Jain Society of North Texas [24]

## 2. Iconography

The most distinctive contribution of Jainism to art is in the realm of iconography. Jain images are serene and joyous in expression and are seated or standing in meditation with hands by their sides. We find a special feature in Jain art work of Tirthankars that the figure is flanked on either side by a *yaksas* and *yaksis* – male and female. It is believed that they are there to fulfil the material aspirations of people as the *yakshas* cater to worldly longings. Tirthankars, embodiments of renunciation and austerity, on the other hand, cater to the spiritual longing. This is an exceptional feature of Jain art. According to Jain tradition, all twenty-four Tirthankars of the present era were born in the northern region and it was in this region that most of the Jain deities first gained sculptural representations. Jain iconography has developed images of the celestial beings, *Yantras* and *Mantras*.

Mathura was a stronghold of Jainism from approximately the 100BC to the 12th century. The early Jain sculptures from Mathura are of special iconographic significance because they exhibit certain formative stages in the development of Jain iconography. Later on some other features were introduced such as distinguishing symbols (*lanchna*) which were engraved on the front and base of Jina images, as veneration of images of ‘Guardian Deities’ (*Yaksas* and *Yaksis*).

### 3. Gommateswara Bahubali

The statue of Gommateswara Bahubali at Sravan Belgola (981CE) is nineteen meters high and sculptured from a single rock and is the largest freestanding monolithic statue in the world. It symbolizes complete detachment from the world, an aspiration of all Jains.

Conclusively, we find that Jains have contributed significantly to art that have helped us uncover more of Jain ethics, religion and antiquity.



[25]

# CHAPTER-11

## COSMOLOGY

### Introduction

We consider cosmology as a truly modern and advanced subject but at the same time it has ancient roots. Thinkers throughout the ages have explored the nature of the universe. The ancient religions of India, particularly the Vedic and Jain religions have described the model of the cosmos. The Jain picture of cosmos is so much popular amongst the Jain community that it figures extensively in traditional Jain art and forms a symbolic background to the Jain explanation of the meaning of life.

During Twentieth century various models of cosmology have been formulated by scientists under various assumptions. They are:

1. Static
2. Steady state
3. Evolutionary
4. Chemical.

At present, none of the models is wholly accepted nor totally rejected. We are not even sure whether the observed red-shifts are cosmological. Edwin Hubble's landmark Law is 'distant galaxies are moving rapidly away from us i.e. the universe is expanding.' This infers also that objects were closer, in the earliest times, perhaps to a negligible point where the density of the universe was infinite. We just assume it in the absence of a better alternative. Even the most powerful optical and radio telescopes at present are unable to fathom the whole depth of the universe and whatever observations are obtained at large distances, the correct interpretations have quite often eluded the scientists. It is therefore, worthwhile to study the Jain model of Cosmos through which the origin and nature of the universe have been described.

### Narration

In a book 'A brief history of time' S. Hawking mentions that once a lady said to Bertand Russel 'The world is really a flat plate supported on the back of a giant tortoise'. Russel asked 'what is the tortoise standing on?'

Most of the religions believe that god created the universe. Somebody asked the priest 'what did God do before he created the universe?' He could not reply to the question but desperately said 'certainly he was not preparing hell for those people who asked such questions.'

Similarly, there is a question for scientists who are in favour of a big - bang theory that where was the time before the beginning of the universe? Hawking's reply is that the time before the beginning of universe is of no use to us. St. Augustine believed that time was the property of Universe. Time did not exist before the beginning of the universe. The old Indian scriptures have also described about the nature of the universe.

Rig Veda says, 'in the beginning, there was neither naught nor aught. Then there was neither sky nor atmosphere above. Then there was neither death nor immortality. Then there was neither day, nor night, nor light, nor darkness. Only the Existent one breathed calmly, self-contained.' (10,121.1)

Atharva Veda says 'the whole of this universe is stationed in the Omnipresent and the Omnipresent is God. Him they call the Kala, Infinite, pervading the infinite space.' (19.53.3)

Quran Says 'No vision can grasp Him but His grasp is over all vision. He is above all comprehension, yet is acquainted with all things.' 6.103

The above quotations show that the creation of universe is a mystery. Mystery creates wonder and wonder is the basis of man's desire to understand. The modern thought is - there is no reason to assume that the universe has the slightest interest in intelligence or even in life. Both may be random accidental by-products of its operations like the beautiful patterns on a butterfly's wings. The insect would fly just as well without them.

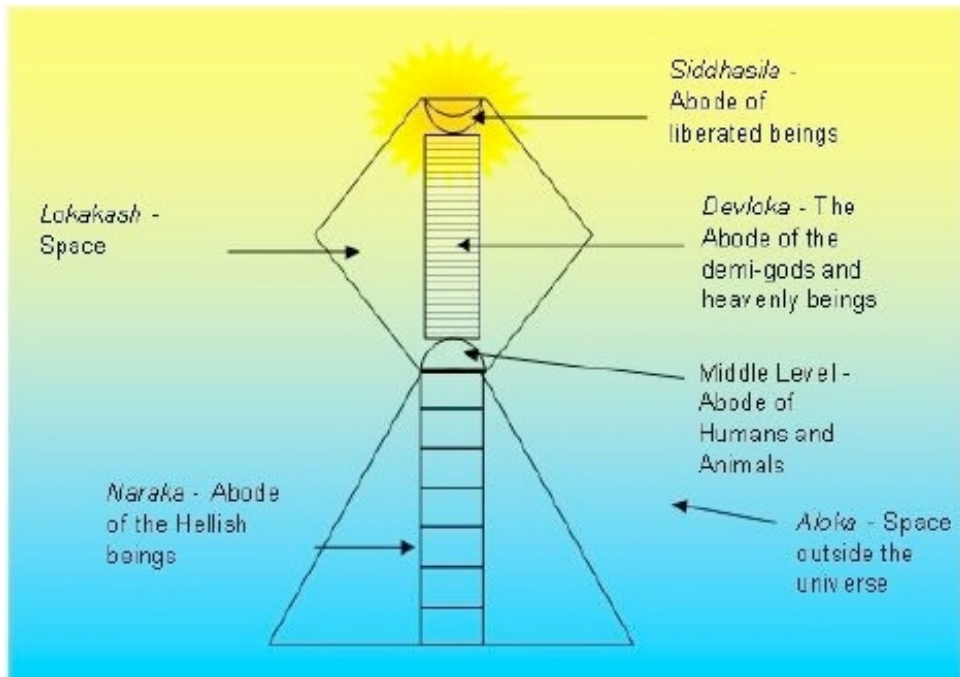
### **Jain Cosmology**

According to Jain cosmology, the universe is uncreated, self-sustaining and eternal. There is no ending and beginning of the universe with respect to time. With respect to space, the universe is represented by a geometrical model, which can be formed by using three simple household bowls.

#### **1. Illustration**

Three bowls are used. One bowl is placed convex-wise (i.e. upside down) at the bottom, the second bowl placed concave-wise (i.e. with the face upwards) above it and the third bowl placed convex-wise (like the bowl at the bottom) on top of the second bowl. The resultant configuration arising from the conjunction of the three conical bowls with the shape of chopped pyramids on four sides becomes the model comparable with the figure of the Cosmos.

This figure if seen in its vertical cross-section, narrows from the bottom to the center, and then widens again in nearly the same degree as above. This model shows that both the summit and base are built on a convex shape.



[26]



Four sided Figure of Universe (Proposed by the author) [27]



Kirfel, the German scholar interpreted the figure of the Universe as “three pyramids one on top of the other, each with a square base and rising in steps on all sides, the center one of which standing on its top surface.

The model of the universe shows three different parts; upper, middle and lower. The unit of measurement for large structures is called *Yojana*, i.e equivalent to about six miles. The upper part of the universe is said to be the Heavens. The Middle part belongs to the Humans, animals, plants, astral bodies and their owners etc. It is a flat, circular disc, and one *Rajju* (highest unit of distance measurement) diameter. The lowest part belongs to the seven Hells. Hence, the occupied universe can be described in the shape of Humans with three distinct parts. The liberated souls reside at the top of the upper world. This region is known as the *Siddha Sila*.

For us, the significant part is the middle world. Our earth is at the centre of the middle world and shaped like a circular disc surrounded alternately by innumerable annular seas and island continents, their diameters going on doubling.

## **Eternal**

We know that circle is a perfectly round plane figure. If we measure the circumference and the diameter of any circle and then divide the circumference by the diameter; we will always get the same answer. It does not matter whether the circle is as big as a spaghetti plate or as small as our pinky ring. The magic number is approximately 3.1415826... termed pie (Greek symbol). The quotient is not an exact decimal. We would not be able to find the precise value of pie because pie is a never ending number. Therefore, ‘the squaring of a circle’ i.e. the dimensions of a square with the same area as that of a circle of any size is not possible. We can derive the inference that as the circle is the symbol of never-ending story because it is a line that goes around and around without ending so is the world is never ending in time i.e. eternal. Now-a-days the scholars are presenting the shape of a *Loka* with curvature inspite of a flat base to form a figure of 8 so that the shape of the *Loka* becomes stable.

Another contribution of Jain cosmology is the concept of *Ruyag Pradesh* i.e. the central points of the cosmos.

## **2. Ruyag Pradesh**

According to Jain philosophy the universal space i.e. *Loka* has an eight-point center at the half way of the vertical direction. They are known as *Ruyag Pradeshes*. The illustration of the eight-point center is as follows:

“The figure that emerges when the four udders of a cow are in one plane and the four udders of another cow are in a lower plane, interlinking in such a way that each point gets enjoined to the other two points. This forms a figure of three dimensional square

cube. It projects six surfaces and eight points. This cubical shape with eight points is known as eight point center, [EPC].

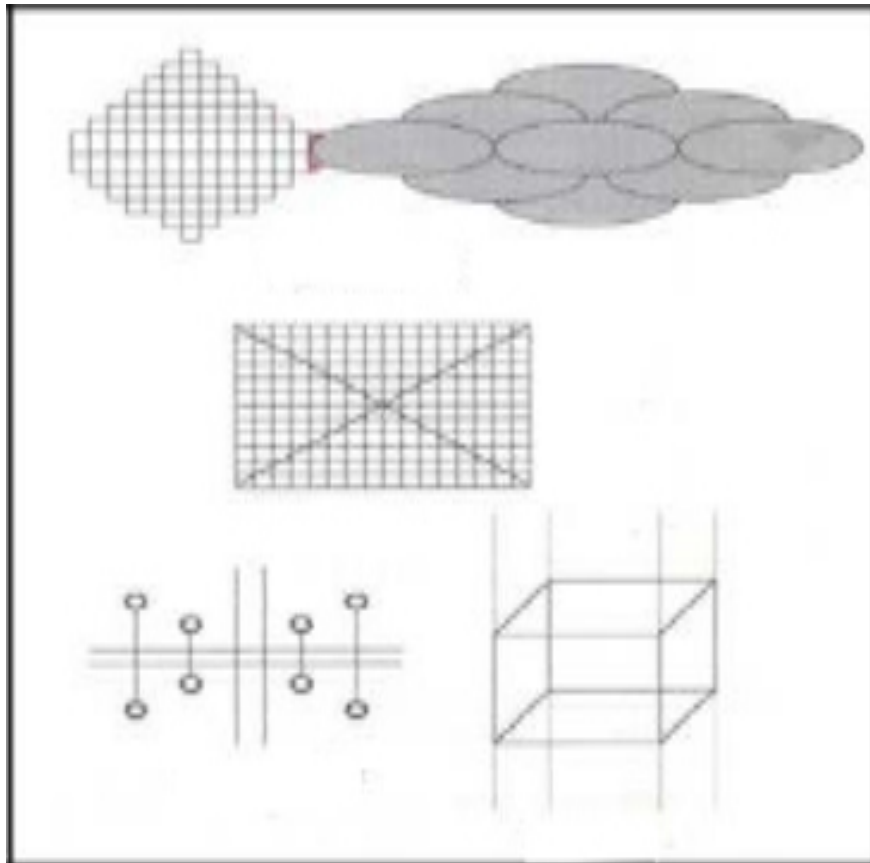
One must note the contributions of the Jains to be able to depict these immensely complex structures with unimaginable simplicity.

E. Schubring the German Indologist highly appreciated the Jain mathematician's remarkable mode of developing an eight point centre which forms geometrically a figure of the three dimensional universe. It reveals that Jains had a wonderful insight into the natural world.

### 3. Directions

The cubical unit representing the centre of the universe is quite significant since all the directions originate from this unit. In the realm of space, four main directions, four intermediate directions, zenith and nadir directions appear. It is reported that the main directions are drum-shaped and reach infinity. These are the cosmological directions and are permanent; do not depend upon the movement of the sun.

Such extension of directions going even out of universe i.e. *Aloka* shows that space can exist only where there is the possibility of directing and direction.



**(From top to bottom)**

- (i) Drum-shape directions
- (ii) Intermediate directions
- (iii) Eight central points
- (iv) Square cube.

#### **4. Concept of space**

The Jain concept of *akasa* (space) is very peculiar. The space as conceived by the Jain tradition has two parts:

- (i) The cosmic or universal space is finite and occupied by substances.
- (ii) The acosmic or empty space is beyond the universal space. Empty space is infinite and it is void of substances. This concept is very much original of Jains.

According to Jainism total space is infinite but the Universe is finite. The finiteness of the universe is not due to any limit of space but due to the limit of the twin substances – the medium of motion and the medium of rest. It is not possible for space to have two characteristics, one in which it accommodates the soul and matter, and the other in which it does not. Therefore, Jainism proposes that the boundary between cosmic and acosmic space is due the finiteness of the medium of motion and rest, which limits the universal space.

Jains stand alone amongst the other ancient philosophers in believing in the existence of the twin substances – *Dharma Astikaya* (medium of motion) and *Adharm Astikaya* (medium of rest). The idea is that because these twin substances are finite, the Universe is finite too.

When we relate these religious theories to science, we find that Einstein's theory of relativity and the concept of entropy have suggested that the Universe is finite. In fact, we know many other scientists who seem to be in agreement with this notion. Newton's law of gravity and Stephen Hawking, have both implied that it is gravity that shapes the large-scale structure of the Universe.

Arthur Eddington, in his book 'Nature of the Physical World' published in the 1930s, and his concept of entropy described as a measure of disorganization of the universe could suggest that Universe is finite and has to 'run out'. However, Eddington states the universe is also unbounded, which is an instance of juxtaposition of the opposites. He tries to facilitate comprehension, saying the universe is like a sphere. It is indeed finite, limited, as it is by the space it takes up but the space does not limit it with boundaries. This concept left room for the possibility of the existence of something beyond this finite and unbounded universe of space and time. However, Eddington rejected the idea

of the existence of 'parallel or coexistent universes' but he spoke for 'many possible histories' which may mean universe as a 'multiverse.

Hawking, a revered scientist scholar of our time, has also mentioned the term "universe with no edge" in his publications. It is certainly tricky then to imagine the possibility of space forming a boundary in space. This is why we go back to the Jain concepts of the twin substances of ***Dharma Astikaya*** and ***Adharma Astikaya*** that give us the precise solution for the formation of a boundary in the Universe.

The important texts on cosmology in Jain literature are the ***Suryapragyapti***, the ***Chandrapragyapti***, the ***Jambodeepragayapti*** and the ***Bhagwati sutra***.

## CHAPTER-12

# JAIN MATHEMATICS

### Introduction

Mathematics means a way of expressing certain kind of thoughts in the form of numbers, quantities, shapes etc. Mathematics represents the abstraction of all the basic sciences. Through history, the statutes of any given science at a given time could probably evaluate by the extent to which the science was mathematicised.

Ancient India contributed tremendously to the development of mathematics. The oldest evidence of mathematical knowledge to Indians is found in the Indus valley civilization. Archaeological discoveries have found evidence of meticulous town planning at Mohenjodaro and Harrapa. It is clear that the cities of this civilization could not have been built without knowledge of geometry. During *Vedic* period, the sacrificial altars were constructed in various safe geometrical shapes to confine the sacred fire. The *Sulbasutras* give us several geometrical rules and procedures for the construction of fire-altars. The shapes of pits used to be in geometrical segments, e.g. triangle, quadrilateral, oval, spherical, circular etc. and the other geometrical shapes were the falcon-shaped, rhombus, wheel with and without spokes, square, tortoise-shaped and so on. There is no doubt that in ancient India the excellence in mathematics existed to an extent that they used a system of measures and weights based on an awareness of the decimal system.

### Narration

In the western world Galileo declared that nature could be read only through mathematics. Pythagoras believed that the entire universe could be understood in terms of natural numbers and their ratios. According to them, the moving planets demonstrated the divine nature of the natural numbers by the play of “the music of spheres.” The knowledge of the relationship between the ratios of natural numbers and the musical scale emboldened them to establish a belief system wherein they held the natural numbers themselves to be God. There is something surely natural to numbers that prompted people like Leopold Kronecker to announce, “God made the natural numbers, all else is the work of man.” Though insentient, numbers perform important functions in our lives. Numbers do not have a physical entity of their own. They are just an abstraction.

In the field of Geometry, Pythagoras was the first to prove the theorem that says the sum of the squares of the two shorter sides of a right angle triangle is equal to the

square of the hypotenuse. The Pythagoreans belief that everything was made up of natural numbers and the ratio of these numbers was shaken by proof that there was no natural number, whose square was two. The proof proved their religious beliefs to be miserably wrong. Religion based on numbers is a veritable illusion. The fact that there exist other numbers in addition to the natural number unnerved them.

During sixth century B.C. Jain mathematicians flourished in India, when the ancient culture of China and Greek were also contributing to the development of mathematics. In the history of Indian mathematics, the popular names of mathematicians are Arya Bhatt (476A.D.), Bhram Gupta (628 A.D.), Shri Dhar, Shri *patti* (1038 A.D.) and others. *Ganita Sar Sangrha* is the first book of a Jain mathematician published in 1912, through its old manuscript. 'Mathematics of Dhavala' is another good book published later on.

## Jain mathematics

Jain mathematics is a part of Indian mathematics. Its main features are as follows:

### 1. *Pati-Ganita*

Ancient mathematics had been popularly known as '*Pati-Ganita*'. Various scholars have tried to find out the historical background of this peculiar word. According to them, this word is actually constituted of two words:

- *Pati* – slate (board)
- *Ganita* – mathematics.

Hence it means that mathematics in which *slate* is needed to perform calculations. Due to want of paper up to the end of the nineteenth century, *slate* was in use. Even now its ample use is found in villages. Scholars regard that this word originated from a local dialect of northern India which was the offshoot of Sanskrit language. When the Sanskrit texts were translated into the Arabic, they called it '*Ilma-Hisaba-Al-takhta*'. *Takhta* in Arabic language means a slate. They sometimes used another word – '*Hisaba-Al-guvara*', as the slate was often replaced by the sand-floors.

The original Sanskrit words used to describe a 'slate for writing' were – *palaka* and *patta*; not *pati*. The word *pati* finds mention in Sanskrit literature from circa 5<sup>th</sup> century. Therefore, the word *pati-ganita* should actually be referring to 'tabular' form of mathematics when the decimal counting began in the form of one, two, three, and four.... . Some of the latter mathematicians have actually used the word "*pati-ganita* for mathematics of integers". This was meant to regard algebra as separate from the numerals.

The following are some texts of *pati-ganita*:

- Vakshali Manuscript (c. 300 A.D.)
- Slate mathematics of Shri Dhar and Trisatika (c. 750 A.D.)
- Ganita Sar-Sangraha (c. 850 A.D.)
- Ganita Tilaka (1039 A.D.)
- Lilavati (1150 A.D.)
- Ganita Kaumudi (1356 A.D.) and
- Pati-sar written by Munisvara (c. 1658 A.D.)

Besides, Bhaskara-II had mentioned that Lalla had authored a separate text on *pati-ganita*.

These treatises comprise twenty operators and eight forms of calculations. Examples have also been given along with the aphorism for explaining the application thereof.

### **Example of Arithmetic Progression**

An example of treatment of series is presented here. It is like a ladder hence, it is called 'progression' in mathematics. A person gives four rupees to another person. Every next day he adds five rupees to the previous day's amount, continuing up to fifteen days, then what is the total amount so given?

Whatever he gives on the first day is called the 'initial-amount'; incremental amount is called the 'common difference'. The number of days for which the amount is given is called the 'period'. The total sum is called the '**samvardhana**'. Whatever is given on the last day is called the 'last-amount'. Whatever is given in the middle of the period is called the 'middle-amount'.

### **Method**

The period is 15.

Subtracting 1, we get  $15-1 = 14$ .

Multiplying it with common difference, gives  $14 \times 5 = 70$ .

Adding the initial term, it gives  $70 + 4 = 74$ .

This is the 'last-amount'.

Then half of  $74 + 4$  is half of 78 is 39 which is the middle term.

The sum total is  $39 \times 15$  (number of terms) = 585.

Similarly, the sum of the natural number from one to nine, or sum of more numbers, sum of the sums, sum of the square and cube are the topics of this mathematics.

## 2. Units of Calculations

**Rajju** : This is called mensuration. Through this, the depth of a lake (tank), height of a tree, etc. are measured. Its geometrical organs are the side, height, hypotenuse, diameter, circular area and circumference etc. This basically involves measurements using rope.

**Rashi (Volume)** : This is called treatment of volume using heaps of grains.

**Kala-Savarna (Fraction)** : The number which is not an integer, and is in part, is called *Kala-Savarna*, when it is made similar this is called operation of making denominators equal, or the process of making denominators similar. (History of Hindu Mathematics. p. 179). The upper part is called 'numerator' and the lower part is called 'denominator'.

For example:  $1/2$  and  $1/3$ .

Its meaning as Kala Savarna will be  $3/6$ ;  $2/6$  respectively.

**Yavat-tavat**: As the name suggests, it means the multiplication series can be extended up to as far as possible. It is also used in summation of series.

**Varga (Square)**: The word *varga* means 'pankti' or row, or assembly (*Samudaya*). But in mathematics, its meaning is 'vargaghat' and 'vargakshetra' or its area. The predecessor preceptors have given its general definition as a square region (*Samacaturastra*). The product of two numbers is also square. The word *Kriti* is also used for *varga* implication, but rarely. This is also called 'Samadurasighata' various scholars have described its various processes.

**Ghana (Cube)**: This has been used to indicate solid cube and product of three equal numbers in geometrical and mathematical implications. The opinion of *Aryabhatta* is the product of three equal numbers and a solid with twelve equal angles (as well as sides) is also a cube. The word *Vrnda* has also been used at some places with the meaning as *ghana* (cube). This is also called 'Samatrirasaghata'. There is also difference in the processes of calculating the cube. According to statement of Sridhara, Mahavira and Bhaskara, the cube is the product of three equal numbers.

**Varga-varga (Square-Square)**: Multiplication of square by square. This is also called 'samacaturghata' (raised to power four). First the original number is multiplied by the same number. Then the product is multiplied by the same product. Whatever number results, is called *varga-varga phala* (square of square). For example  $4 \times 4 = 16$ ,  $16 \times 16 = 256$ .

**Krakach**: In Kala mathematics, it is called 'treatment of Saw Mathematics (*krakaca-vyavahara*)'. This is a kind of *patiganita*. This gives the knowledge of sawing of wood and toiling of stones.

For example, a wood piece is 20 fingers thick as the base and 16 fingers thick at the top. It is 100 fingers in length. If it is sawed at four places, what will be its sawed up measure



in hands? The thickness of the base and the top are added,  $20 + 10 = 36$ . This is divided by 2, giving  $36 / 2 = 18$ . This is multiplied by length, resulting in  $100 \times 18 = 1800$ . Then this is multiplied by the number of sawing processes, giving  $1800 \times 4 = 7200$ . This is divided by 576, getting  $7200 / 576 = 12.5$ . This sawing is measured in terms of 'hands'.

The commentator of the Jain Svetamber Agam Sthananga has not given all types of examples falling under various methods.

The commentator has quoted a verse while describing '*Pandanika Shabd*' in the beginning of the exposition of the *Sutrakratang* 2/1. In it ten types of mathematics have been mentioned. Out of these nine types are similar to those in the *Sthananga*. Only one type has been mentioned differently – the word '*kalpa*' of the *Sthananga* is not there; instead the word '*Pudgala*' finds mention which is not available in the *Sthananga*.

### 3. Operators

In the Indian system, there are eight basic mathematical operations :

- Addition
- Subtraction
- Multiplication
- Division
- Square
- Square-Root
- Cube
- Cube-Root.

But, out of these operations, the majority of them were not employed effectively in the canonical texts. According to Brahmagupta; there are sixteen possible mathematical operations:

- Addition Subtraction Multiplication Division
- Square
- Square-Root
- Cube
- Cube-Root.
- Five Rules for simplifying fractions.
- The Rule of Three Expressions
- Complex Rule of Three Expressions
- Rule of Five Expression
- Rule of Seven Expressions
- Rule of Nine Expressions
- Rule of Eleven Expressions

- Rule of Commutation.

From the ancient times, the Hindu mathematicians recognized that all the operations of mathematics are based on the two fundamental operations – addition and subtraction. The operations of doubling and halving were regarded important by the Egyptians, Greeks and Arabians, who were ignorant of the decimal system.

Mathematical interest in permutations and combinations among the Vedic Hindus also appears to be stimulated by consideration of Vedic meters and their variation. There are several Vedic meters, e.g. *Gayatri*, *Anustubh*, *Brhati*, *Tistubh*, *Jagati*, etc., with 6,8,9,11,12 syllables. The Vedic meter specialist grappled with the problem of producing possible types of meters from those of varying syllables group. **Piingla's Chandah-Sutra** [200 B.C.] gives a rule of a method called *meru-prastara* for the computation of the coefficients in a binomial series, which reappears in Europe as Pascal's triangle in the arithmetic of Apianus (1527 A.D.).

#### 4. Numerate, Innumerate and Infinite

##### (i) *Shirsaprahelika* (The Top riddle)

Jainism, while having a discourse on the arithmetic of the Vedic Era, mentions about the specialty of the *Sirsaprahelika*, the maximum number, described in the Jain canonical texts. Yajurveda, 17/2 mentions up to *Mahasankha* in which 20 digits are included. An intermediate number of ten *kharabas* is also prominent, which is obtained by raising 10 to the power of 12 i.e.  $10^{12}$ . In that mathematical text, the counting progress as *ikai* (unit), *das* (ten), *shata* (hundred), *sahasra* (thousand),....., *kharaba*, *das kharabas*,..... *shankha*, *dasshankha*, *mahashankha*. Whereas, in the Jain ancient literature, the biggest number, called *Shirsaprahelika*, comprises 54 digits followed by 140 zeros. The maximum number, therefore, contains 194 digits. However, in another text, the *Shirsaprahelika* is recognized as a number having 250 digits. By any means, the biggest number as quoted in the Vedic era, is very small in comparison. The modern sophisticated mathematics also acknowledges the importance of large numbers such as *Shirsaprahelika* and has regarded it as an important discovery. We shall therefore, discuss the interesting part of Jain Arithmetic regarding the maximum and the minimum number.

In the Jain Texts, there is description of the numerate, the innumerate and the infinite in defining the space points and time periods. The ultimate finest unit of time has been called as "*Samaya*" (instant). The period from an instant (*Samaya*) up to the *Shirsaprahelika* is calculable thus all numbers in between are called numerate. It is interesting to find that among the numbers smaller than the *Shirsaprahelika*, is an intermediate number, Eighty Four Lakhs, has been given special importance.

In deriving the biggest number, first the counting up to a number of eighty-four lakhs was done. This number was named "**Purvanga**". After this, eighty-four lakhs have been multiplied by eighty four lakhs, i.e. eighty-four lakhs have been squared. The number thus obtained was named "**Purva**". When the number "**Purva**", is multiplied by eighty-four lakhs again, the result was called "**Trutitanga**". In this sequence, there are twenty eight such places. Progressing in this manner, the ultimate number, "**Sirsaprahelika**" can be denoted as follows:

$$(8400000)^{28} \quad \text{or} \quad (84 \times 10^5)^{28}$$

Although the time-period up to the "**Sirsaprahelika**", is sufficient for all practical purposes, the calculable and numerate periods beyond this limit are described using simile (*upama*), such as – **pallayopama**, the **sagaropama**, the **avasarpini**, the **utsarpini**. They are employed in mentioning the longevity of bios in various life-forms. The periods of time, beyond measures have been treated in terms of the 'innumerate' and the 'infinite'. It is interesting to note that the numerical building blocks beyond eighty-four lakhs have been obtained by multiplying the preceding number with 84 lakhs, for example:

84 lakhs years = 1 *purvanga*

84 lakhs *purvanga* = 1 *purva*

84 lakhs *purva* = 1 *trutitanga*

.....

.....

84 lakhs *chulika* = 1 *shirsaprahelikanga*

84 lakhs *shirsaprahelikanga* = 1 *shirsaprahelika*.

The decimal system has been used in the arithmetic of the Vedic and the Jain schools. Both are similar to a large extent, except for the fact that in Jain arithmetic the numbers beyond 84 lakhs are derived by repeated multiplication of the number 8400000 (eighty-four lakhs). That is, the further increment is not in units but en-block by eighty-four lakhs.

## 2. Different Traditions

### (i) Swetambara Tradition

Here, three technical terms have been mentioned, which need detailed discussions:

- **Kati**
- **Akati**
- **Avakatavya**

The meaning of the word Kati is – how many? Here the numbers starting from two and increasing up to the largest numerate are all indicative of ‘how many’.

The meaning of *Akati* is innumerate (finite, but uncountable) and infinite.

The meaning of *Avaktavya* (inexpressible) is the digit ‘one’.

On the basis of the *Uttaradhyayana* and the *Anuyogadvara* aphorisms, it has been mentioned that the number ‘one’ has not been regarded as the calculation number. In the Jain canonical texts, the minimal calculation number has been recognised as two. Why? Its exposition is necessary, and that has been given in the pages after the discussion of Digamber tradition.

### **(ii) Digambara tradition:**

In the Digambara tradition, the word ‘*Kadi*’ occurs in place of the word Kati. Its meaning has been expressed as that of ‘*Kruti*’. The mathematical exposition of the word *Kruti* is different from that in the Shvetambara tradition. Digambars, therefore, use another term ‘*Nokruti*’ in their classification of numbers. Their three terms are:

- *Kruti*
- *Nokruti*
- *Avakatavya*

#### ***Kruti***

A number which fulfils following three criteria is termed as *Kruti*:

This increases after being squared,

When the difference of its square and the number itself is greater than the number,

When above difference is squared and proceeding number is subtracted again, result must be greater than the original number. This incremental pattern must continue as many times as this process is repeated.

#### ***Nokruti***

The difference among these three terms can be understood with the help of examples.

Let us take an example of number ‘one’:

There is no increase when it is squared –

$$(1)^2 = 1 \times 1 = 1$$

When, out of this square the number itself is subtracted, it results in null –

$$1 - 1 = 0$$

There is no increase if the difference so obtained is squared again –  $0^2 = 0 \times 0 = 0$

$0 - 1 =$  not possible

Hence the number 'one' does not fall under the criteria of *Kruti* and thus, has been called *nokruti*.

### **Avaktavya**

Let us now take an example of number 'two' :

An increase is seen on squaring the number two, hence it cannot be called *nokruti*:

$$(2)^2 = 2 \times 2 = 4$$

On subtracting from this, the number itself, the original number is obtained:

$$4 - 2 = 2$$

When this resulting number is again squared and the square root is subtracted, there is no increase in number:

$$(2)^2 = 4, \text{ and}$$

$$4 - 2 = 2$$

From these equations it is found that the number 'two' is neither *Kruti* nor *nokruti*, hence it is called *Avaktavya* (inexpressible).

### **Kruti**

Let us take an example of number 'three' :

There is increase on squaring the number 'three' onwards:

$$(3)^2 = 9$$

On subtracting the original number from this number, result is incremental:

$$9 - 3 = 6$$

On repeating, in this sequence, the increment cumulates:

$$(6)^2 = 36$$

$$36 - 6 = 30$$

From the above description it is known that :

- The number 'one' is *nokruti*.
- The number 'two' is *Avaktavya*.
- The numbers 'three' and the onwards numbers are *Kruti*.

While describing numerables Jain Agam Anuyogadvara omits 0 and 1 by saying that minimum of numerables is 2. One was not regarded as number as number of counting purposes. Commentator Malayagiri [12<sup>th</sup> C.A.D.] justify this by saying that since on squaring one remains the one, hence it is not countable number. As regards zero, its place value has come in numeration round about 300 A.D. It is therefore, in Jain arithmetic the increment in number is obtained by the mathematical operation of squaring and the counting does not start from the digit 'one'. In both the traditions, the

Swetamber and the Digamber, “*Samkhyati Iti Samkhya*” – that, which could be divided, is a number. From this point of view, the minimum number starts with ‘two’. In the *Sthananga-Sutra*, ten types of mathematics are described in the chapter dealing with numerate terms.

Now, let us dwell on the basic question, why the powers of eighty-four lakhs were employed in counting of large numbers?

### 3. Unique Number

In Jain theory, there are eighty-four lakhs possible originations or classes (*yoyni*) of bios (living beings). The bios transmigrate again and again within these classes during the cycles of births and rebirths, till it does not become free from the bondage of Karma. Perhaps this limit had rendered the counting beyond this number as redundant.

In view of the digits, the number 84 has the specialty that on multiplying it again and again, the resulting numbers are such that the sum of their individual digits is always nine (9). As such the number 9 is regarded as divine and holy. For example, if we square the number 84, we get:

$$84 \times 84 = 7056.$$

The sum of the digits of the above number is  $(7+0+5+6) = 18$ ;  $(1+8) = 9$

Similarly,

$$84 \times 84 \times 84 = 592704;$$

The sum of the digits of the above number is  $(5+9+2+7+0+4)=27$ ;  $(2+7)=9$

Similarly,

$$84 \times 84 \times 84 \times 84 = 49787136; (4+9+7+8+7+1+3+6)=45; (4+5)=9.$$

This pattern seems to continue up to the ‘*shirshprahalika*’ and beyond. This is just an indicative possibility; no such explanation is available in Jain Agam literature. In view of the author, the most probable reason could be that the mathematics in that era was more practical than theoretical. For very practical reason of reducing the numerical terms between the figure of 84lakhs till the *shirshprahelika* and extending up to innumerate, the mathematicians of that ancient period decided to increment in the powers rather than addition and multiplication. Let us look at the following table :

Numerical terms between 1&100 = hundred

Numerical terms between 101&1000 = nine hundred

Numerical terms between 1001&10000 = nine thousand

.....

Numerical terms between 8400000 & *shirshprahelika* =?????

The entire purpose thus becomes clear. It was the ingenuity of those scholars who circumvented the cumbersome problem of unmanageably large number of terms at the higher end of the counting. So instead of simple unity increment or multiples were replaced with the powers which reduced the number of numerical terms between 8400000 and *shirshprahelika* to only 28!

How practical!

We have discussed the special features of Jain Arithmetic with regard to the biggest numerate number, the importance of the number 84 Lakhs and the probable reasons for squaring the 84 Lakhs in expanding the numerates. These discussions establish the independent development of Jain Mathematics.

There is one more aspect of Jain Arithmetic about 'zero' which is equally interesting - whatever exists may be near to or tending to zero but cannot be 'absolute zero'. Entities and realities can be infinitesimally small but cannot be absolute zero. This concept is an example of the practical approach towards the permanent existence of six realities. However, Jain Agamic literature has existence of realities taken into consideration of absolute zero while describing the attributes of one reality is always absent in the attributes of the rest of the five realities. This absence is absolute zero. For example, the attribute of *Dharmastikaya* is the medium to help in motion of soul and *pudgal*. There is absolutely zero presence of this attribute in the rest of the five realities.

#### 4. Tending to Zero but not Absolute Zero

The mathematician, Euclid assigned no dimension to the finest point of the space. Although, any dimension (length, breadth and height) is obtained by joining these dimensionless points in the space. Similarly, the scientist, Newton, used to treat the finest particles of matter, the atoms, as having zero dimensions. But Einstein, while making use of the Gaussian geometry, has compared the finest point of space with other micro particles. Similarly, in Jain literature, the finest forms of the six realities have been compared and a definite relationship established.

For instance, mutual equivalence has been established among the finest part of matter, ***parmanu***, the finest part of *akash*, ***pradesh***, and the finest part of time, ***samaya***. Hence the finest part of elementary ***tattvas*** of nature cannot be reduced to zero. They all may be defined to be infinitesimally small – tending to zero – but cannot be zero.

Let us try to know the fact seriously as to why there is no place given to the digit 'zero' in the Jain canonical literature?

As per Jain philosophy, once an entity (*Tattva*) is reduced to 'zero', it cannot reappear into existence. In other words, no reality which exists in this *loka* can reduce to zero either in quantity or in quality. Hence 'zero' cannot have existence in the realm of *Dravyas* or in relation to *Dravyas*. No basic *Dravya* (material) can vanish or can be

destroyed. Jain philosophy, while dealing with only eternal matter or phenomenon, has disregarded the use of digit 'zero' in counting or in mathematical operation.

For instance, a black *parmanu (dion)* on association with other *parmanus* may increase or decrease the nature of black colour but it will never completely lose the original property of colour i.e. colour property will not reduce to 'zero'.

The evolutionary or deductive methodology of modern mathematics necessarily need to have 'zero' quantity (digit), because of its subsequent applications – to segregate existent and non-existent, real or imaginary quantity etc. This was not the case in olden ages. As such the necessity to use 'zero' did not exist in that era's philosophy. Instead of zero, Jain philosophy considered the term 'tending to zero' as more appropriate. Such an example is found in relation to the measurement of heat by the modern scientists :

There are two units prevalent for the measurement of temperature :

Centigrade scale - °C (Degree Celsius)

Absolute scale - °K (Degree Kelvin)

When we say that water freezes at 0°C, it does not mean that the heat energy has reduced to zero. Below 0°C, negative temperatures are used such as -50°C – temperature of Antarctica. This however does not mean negative energy. Therefore, scientists developed another scale of 0°K which means absolute zero energy at 0°K. In this absolute scale of heat, the ice temperature of 0°C is referred as 273°K above absolute zero. Accordingly, -50°C becomes 223°K. There is no negative value in this scale. Liquid gases exhibit temperatures below 273°K. In the experiments of superconductivity, the scientists were successful in achieving temperatures as low as 3-4 °K. But then, how to explain 0°K? Entity ceases to exist at that instant. 0°K is thus treated as absolute zero and there is a clear conception in the field of science that this temperature (heat) is only notional and not real. At absolute zero, no properties have any relevance in physics.

Another example from the world of science is the properties of a photon :

Photon is treated as a bundle of energy with zero-mass (massless) at rest.

Photons travel at the speed of light and acquire mass which cannot be measured due to its motion.

Once again, the scientists say that the absolute zero mass is only notional and even at rest it only tends to become zero. These two examples establish a close analogy between science and Jainism.



## 5. Number System

Quantitatively, numbers are classified in three main categories depending on their accountability - numerate, innumerate and infinite. These are further divided in three sub- categories – Minimum, Medium and Maximum. Amongst these nine categories, only eight were adopted by the mathematicians and the last sub-category of maximal infinity is discarded on similar grounds upon which the zero was discarded. Their further subclasses are twenty, which are as follows :

There are three classes of the numerates :

- Minimum (minimal)
- Medium, intermediate, middle or intervening
- Maximum (maximal)

There are nine types of the innumerate :

- Minimal Lowest Innumerate
- Medium Lowest Innumerate
- Maximal Lowest Innumerate
- Minimal Average Innumerate
- Medium Average Innumerate
- Maximal Average Innumerate
- Minimal Highest Innumerate
- Medium Highest Innumerate
- Maximal Highest Innumerate.

There are eight types of the infinite :

- Minimal Lowest Infinite
- Medium Lowest Infinite
- Maximal Lowest Infinite
- Minimal Average Infinite
- Medium Average Infinite
- Maximal Average Infinite
- Minimal Highest Infinite
- Medium Highest Infinite

The ninth possibility of 'maximal highest infinite' has been treated as absolute infinity and thus discarded as non-existent. This is termed as '*Asadbhav*'. This presumption was premeditated as the absolute zero was considered non-existent. By simple analogy, absolute infinity is not possible; anything can just tend to become absolutely infinite.

This description shows that the number system including infinite is not exactly equivalent to modern mathematics.

## 6. Infinitum and Innumerate

Various similes were employed in the process of building the counting patterns running into innumerate and further to infinite. A description of four concentric cylinders (cups) namely, **Anavasthith, Shalaka, Pratishalaka** and **Mahashalaka** is very interesting. An imaginary process of emptying the seed contents of these cups into the volumes of **Jambu Island, Lavan Ocean, Dhatkikhanda** and so on; results in the seventeen categories of innumerate and infinities as enlisted above. The process of selecting lowest, highest and median is very similar to that employed in the modern statistics, where the smallest and largest samples of data are excluded from the series of numbers used for calculating the median or average.

The word infinite in the Jain canonical literature has been extensively used. The meaning of this word assumes slight variations with the changed context. Mahapragya writes that, that which does not come to an end is called infinite. This definition fits in all the references where this word is employed.

Numerate is subject to calculations and counting. Innumerate is not subject to calculations but it is used for comparison, hence it too, is not endless. Various references where 'infinite' is used are related to the characteristics of six fundamental realities, like:

*Jiva* (bios) i.e. one *Atma* consists of innumerate **pradeshas**. It is to be remembered that the total number of souls in the universe are infinite.

Infinite dions (*paramanu*) combine to form quadrons (**skandhs**) **Four-touch quadrons are also infinite in this universe.**

Group of infinite quadrons makes an octon (behavioural *paramanu*). They are also infinite in this universe.

Innumerate *Samay* (instant) elapses in an **Avalika. Time has no beginning and no end, hence infinite.**

Universal space comprises of innumerate **Pradeshs**. *However the entire space, which includes universal and non-universal space is infinite.*

Besides the eight classifications of 'infinity', words like 'uni-infinity' and 'universal infinity' do appear in the Jain texts. These are used with respect to space and time both. In space, 'uni-infinity' is used for one-dimensional lengths and 'universal infinity' is used for spatial extensions. Similarly, in time, 'uni-infinity' is used for either the past or the future and 'universal infinity' defines the entire time frame.

Jain metaphysics describes a comparison of various infinities of souls, *pudgal*, and time and space i.e. :

Infinite space > Infinite time > infinite *pudgal* > infinite souls.

It explains the eternal character of the existence.

We find a speciality in Jain mathematics that the numerate and the innumerate have been placed together. In the Bhagavati-Sutra, a table has been given which formulates the units of time :

<i>Samaya</i>	Smallest unit
Innumerate <i>samaya</i>	one <i>avalika</i>
Numerate <i>avalika</i>	one respiration
One breath — respiration	one <i>prana</i>
Seven <i>pranas</i>	one <i>stoka</i>
.....	.....
Forty eight minutes	one <i>muhurta</i> etc.

An outstanding fact revealed by this table is that a numerate *avalika* embrace innumerate *samaya*. That is, even innumerate could be a part of the numerate. The modern physics describes Plank's time =  $5.39 \times 10^{44}$ . One may compare with the ultimate unit '*Samaya*'.

The number scale, as used in Jain texts, starting from numerate and ending at infinitum comprises all the constituents of modern mathematics, highlights of which are :

1. Use of arithmetical progression to build the number scale up to 84 lakhs.
2. Use of geometrical progression to continue counting beyond 84 lakhs.
3. Use of statistical quantities like maxima, minima, medium and average.

## 7. Manuscripts

Historically, the process of intellectual creativity in India has been characterized by profound diversities in terms of areas, dimensions and depth of knowledge sought and explicated. The realm of knowledge in its historicity encompasses not merely metaphysical, philosophical and spiritual but also literary, linguistic, political, scientific, mathematical, and even aesthetic areas. It ought to be emphasized that a great deal of literature exists in the form of handwritten manuscripts, which has not been translated, studied and even properly preserved. This literature has been written in Sanskrit, Prakrit, Pali and different regional dialects. The neglect of study of the indigenous literature - both classical, semi-classical and folk has become useful for western scholars

who adopted the academic structure at all levels of institutionalized acquisition of knowledge.

The richness of the Indian literature has been captured in numerous manuscripts, some over a thousand years old that are scattered in museums, libraries, temples and private collections throughout the world. In the field of Jainism an earliest effort was made in the sixties of nineteenth century. A German scholar, George Buhler and other scholars in service who served the then Indian government, were sent out to collect manuscripts. Jain manuscripts were preserved in abundance at Jaisalmer, Patan and Moodbidri by various Jain institutions. It is interesting to know that Jains have preserved fine pieces of artwork such as painted wooden boxes and book covers of manuscripts. These painted covers of books on religious topics were commissioned in commemoration of an ascetic, for a presentation of manuscripts.

Hermann Jacobi a German Indologist joined Buhler and they together went to a famous fort of Jaisalmer where, there was a good storage of Jain manuscripts belonging to swetamber sect. George Buhler while collecting manuscripts obtained permission from the Indian Government to collect duplicates, purchase manuscripts at government costs and hand them over to the Berlin library, where Albert Weber has taken care of those rare manuscripts. He prepared a magnificent catalogue of those manuscripts. With the help of that catalogue he gave the first summary of the canonical Agams and initiated Jain studies in Germany. Weber was a genius par excellence and almost unbelievably diligent. During that period when editions of Indian texts were still very rare, he read innumerable manuscripts and contributed more than any other western scholar to the early knowledge of Indian literature. Later on Ernest Leumann and Ludwig Alsdorf worked on manuscripts without the help of many printed books, particularly on ***Apbhransh*** and ***Nijjuti's*** literature.

Leumann made some very good text editions but could only begin this work. He had to leave unfinished when he died in 1930. Sanskrit department in Hamburg University, Germany preserves all the papers left by him. During my visit to Germany in 1982, I saw many of them already used and still more waiting to be taken out of the big almirahas, filled completely by them. One of his life events shows his remarkable achievement and aptitude in the field of manuscripts. In the first years of twentieth century, Sir Auraulstein explored in Eastern Pakistan and brought from the sands of the desert, block prints and manuscripts partly of the Sanskrit work of the highest value for the literary history of India but partly also of manuscripts and block prints in an Indian scripts in Brahmi, a totally unknown language. There was then the International congress of Orientalists in Copenhagen and Stein made a brief report to that conference about his discoveries and findings and Leumann asked him to lend him some of these manuscripts in unknown language. In one single night he succeeded in deciphering enough to prove that this was the new Aryan language and he could even make the first

speech on them in this congress, an almost unbelievable feat. Prof. Alsdorf described this event during his visit to India on 25th centenary celebrations of Lord Mahavira.

We should not forget to respect Muni Punyavijayji who did a scholarly examination of Jaisalmer Bhandar manuscripts. Acharays Shri Tulsi ji, Mahapragya ji, Misrimalji, Amolak Rishij and many others did full justice to the manuscripts while editing Jain Agams. It was really a difficult task for Jain Acharyas to read the contents written on the palm leaves as there was the influence of the shape of the leaves upon the texts. We should also remember to Rai Bahadur Dhanpat Singhji of Murshidabad who was a pioneer in publishing the Jain canonical texts in 1880's.

## **8. Jain Manuscripts**

### **(i) Palm Leaf Period**

The earliest illustrated JAIN manuscripts of Svetamber sect are on palm-leaf and contain two texts, *Ogha-niryukti* and *Dasvakalika-tika*, dated 1060 C.E. The superior quality of the drawing in these manuscripts need not surprise us once we appreciate the fact that painting on cloth by skilful artists was prevalent long before the 11th century. Illustrations on palm-leaf manuscripts became more commonplace over the centuries and it seems that their production was extensive in the 13th and 14th centuries.

### **(ii) The paper period**

The use of paper for Jain manuscripts starts as early as the twelfth century. Its use for illustrated manuscripts, on the available evidence, does not pre-date the 14th century. The Calukya rulers of Gujarat, Siddharaja Jayasimha (1094-1142), and Kumarpala (1142-1172), the famous banker-ministers Vastupala – and Tejpala of the Vaghela kings, and Pethad Shah, minister of Mandal, were responsible for a number of manuscripts. U.P. Shah maintains that the earliest Jain manuscripts on paper are the Kalpa Sutra and the Kalkacharya-Katha (1346 CE). The format is narrow, only 28x8.5 cm, and the texts are only of six lines on each leaf. The narrow oblong shape of paper manuscripts continues, of course, the form of older manuscripts written on palm-leaves. No paper manuscripts in Western India, prior to 1450 CE seem to have survived. Some of the texts have been made by Bhattarakas from the 15th century onwards. Among other old illustrated manuscripts are the Kalkacharya-Katha (1366 CE) in the Prince of Wales of Museum, Bombay, the Santhinatha-charita (1396 CE) in the L.D. Institute of Indology Museum at Ahmedabad. The national Museum, Delhi has a Kalpa Sutra dated 1417 CE. Over the centuries, as the availability of good quality paper and coloured ink improved, many beautifully decorated texts in gold, silver, red and other colors have been hand written or printed.

In the collections at Moodbidri, there are three palm-leaf manuscripts, the Satkhkhandagam, the Maha-bandha and the Kasayapahud, all dating from about 1112-1120 CE. They appear to be the oldest illustrated texts of the Digamber sect. The Khajuraho Jain manuscript library contains two manuscripts of 1107 CE.

The book on Jainism by Natubhai Shah provides important information on manuscripts, of *Mugal* period. Accordingly, the oldest illustrated manuscripts found, are the Aadipurana (1404), the Mahapurana (1420), Jasahara Charita (1434) and some other texts. It is observed that the Svetamber manuscripts are greater in number than the Digamber manuscripts. Both sects used the styles of manuscript illustration that existed in the region where they were written.

### **(iii) Manuscripts in Europe**

It is interesting to know that the work on the manuscripts is continuing in Europe even now. The Institute of Jainology has been involved to catalogue Jain manuscripts in various Libraries across Europe. In 2006, The Prime Minister of India Dr. Man Mohan Singh launched the three volumes of the Jain manuscripts catalogue of the collection in British Library. He said, "I believe that the Jain Manuscript catalogue will be a repository of insights that can help us pursue a more fulfilling life." He further said that such initiatives would inspire to undertake similar effort for re-creation of our history. The catalogue was printed and bound in India to the highest standard to ensure that it stood out amongst the best in its category. Mrs. Ambica Soni, the Union Minister of Tourism who chaired the function was so taken by the quality that she keeps a set to hand over to demonstrate the quality of work she expects from the Indian institutes working on other manuscript catalogues. This is a guideline for all of us, working in the field of cataloguing the manuscripts. The institute of Jainology is in touch with the preparatory work on category of Jain manuscripts in other Libraries of Europe.

### **(iv) Mathematical Manuscripts**

Jain manuscripts afford a wonderful insight not only in its religion, philosophy but also in the science and mathematics presenting the mind of scientific genius of Jain scholars. The prominent Jain *Agams*, which included mathematics, are namely, *Sthanang Sutra*, *Sutrakrutang*, *Prajnapana*, *Sat Khandagam* and others. During early period, Jain mathematics was not an independent branch of knowledge. Mathematics prior to Arya Bhatt (498 A.D.) is not systematically available; whatever is available is through Jain religious texts. In the medieval India, during 7<sup>th</sup> to 12<sup>th</sup> centuries (659-1150) the demand of artistic, cultural and commercial aspirations contributed to the development of mathematics. During this period the growth of *Patiganita* works took place which wrote not only about the basics of arithmetic needed for daily living and mensuration but also about problem solving as an inherent aspect of mathematics. It was in the middle of 9th

century that the Jain texts *Ganitasar Samgraha* of Mahaviracharya dealt with mathematics independently. For the last fifty years or so, efforts are being made by the Jain scholars to present the mathematical contents of Jains, at various National and International Seminars on the History of Mathematics.

The growth of Jain Mathematics was mainly based upon the geometry of figures and the concept of numbers. Mathematics, particularly Altar geometry, bionomical series, originated in the Vedic rituals and in general social and economic conditions. The Vedic Hindus already gave evidence of their striking interest in large numbers built up on the basis of 10 and its powers. Thus place names have been given up to *parardha*  $10^{12}$ . The *Pancavimsa Brahmana* uses these numbers in fixing the *daksinas* of various sacrifices. Yajurveda, 17/2 mentions upto *Mahasankha*, in which 20 digits are included.

Similarly, the Jains imbibed this interest in large numbers and went upto ten places of decimal and beyond. Their biggest number, called *Shirsprahelika*, comprises 54 digits followed by 140 zeros. A familiar question, which the Jains used to ask was what is the number of mustard seeds required to fill a hemispherical trough as large as the *Jambodvipa* with a diameter of 100,000 *yojans*? Then there are other *dvipas* and bowels of the oceans, which are to be similarly filled with mustard seeds. The total number of total seeds will still be less than the highest numerable (*samkhyeya*). This part of Mathematics is known as *Upama-simile ganita*. Their units are *pallayopama*, the *sagarropama*, the *avasarpini*, and the *utsarpani*. They are employed in mentioning the longevity of bios in various life forms. Beyond the highest numerable is the group called the innumerable (*asamkhyeya*) and beyond that the third group the infinite (*ananta*). This concept of large numbers gave a new dimension to Jain Cosmology and Cosmography.

Jains developed the basic geometry and used it to explain the shape and extent of the universe, its center (*ruchak pradesha*), heaven, hell, etc. Besides curved directions, *Krishna Rajji* (Black holes equivalents) etc. are also described using Geometry. Geometry helped in explaining the existence and nature of six *dravyas* which constitutes *Loka-Universe*. The interesting part is that the geometrical systems were used not only on the material substances but also on non-material substances. Though soul is a shapeless existence but according to Jain philosophy soul possesses innumerable *pradesas*. These *pradesas* expand and contract according to the shape of the body. It is remarkable to note that when the soul finally leaves karma and becomes Siddha, its volume remains two-third only. This change shows that there is something significant in the geometrical structure of the soul. We find in Vedic literature also that there is division in the objects with shape and objects without shape. In Sankhya philosophy '*Purusa*' i.e. soul is shapeless and *Prakriti* is with form. Space is an extension of *Prakriti*. Hence space has a form. Jains describe certain substances like space, medium of motion, medium of rest, time, soul as non-material in universe, however they are represented by their smallest units' i.e. *pradesas*. This discussion needs more research work.

## CHAPTER-13

# JAIN AGAMS ARE TEACHINGS OF ARHATS REFERENCE TO ACHARANGA

### Introduction

Ancient Indian literature is represented mainly by the three leading languages Sanskrit, Pali, and Prakrit. Using Prakrit language, Lord Mahavira, the twenty-fourth *Tirthanker* of Jain tradition, verbally disseminated his teachings nearly two thousand five hundred years ago. These teachings are called ***Nigganthan Pavayana***. First spiritual successor of Mahavira was Gandhar Sudharma. He compiled the doctrines and philosophy of Mahavira in the form of twelve ***Angas*** or ***Dvadasanga***. The twelveth ***Anga Drastivad*** is considered to be lost. Therefore in Jain Swetamber tradition, these eleven ***Angas***, twelve ***Upangas***, four ***Chedasutra***, four ***Mulsutra*** and one ***Avashyak Sutra*** are most authentic ***Agams***.

More literature was codified in the form of ***Nijjuties***, ***Vratties***, ***Bhasayas*** (commentary), ***Tikas*** (remarks) by their followers, mainly the Acharyas of the Jain tradition. These treatises extensively deal with various real and ethereal aspects of life, nature, and universe. The spiritual and philosophical thought process has yielded Jain Religion and Jain culture.

Jain Digamber sects .have own tradition of their canonical literature. In 2<sup>nd</sup> Century A.D. Acharyas Puspadanta and Bhutabali composed ***Shatakhandagam***. In between 2nd to 6th century A.D. a number of important commentaries were written on ***Shatakhandagam***, one of them is ***Dhavala*** by Acharya Virsen. The other canonical literature composed is ***Kasayapahuda***, ***Tiloyapannatti***, ***Samayasara***, ***Panchastikaya***, ***Tattvarth Sutra*** etc.

In 18<sup>th</sup> and 19<sup>th</sup> centuries, German scholars could collect only the Swetamber *Agams* and could comment on them. German scholar W. Schubring believed that Jain *Angas* are members of a unit formed by them and are not additions to something previously existing.

### Narration

Some of the western thinkers have stated that Jain philosophy is merely a collection of many other philosophies, that it has no independent identity of its own. The Indian scholar Dalsukh D. Malvania is also of the opinion that the development of Jain philosophy is not entirely independent of the *Vedic* tradition. He admits that conversely



the development of various **Vedic** philosophical systems is dependent on **Shramnic** systems. Giving these observations a serious consideration, Jain Acharya Mahapragya has said that we could not consider these views of the scholars entirely baseless; there was indeed some basis to it. The treatises on **Nyaya** or logic composed by scholars in the medieval age were, in fact, a collection of Buddhist, **Nyayanic** and other philosophies. After reading these treatises, it would be quite natural for anyone to come to the above stated opinion about Jain philosophy. But those treatises are not a representative account of Jain philosophy. Expounding on this point, Mahapragya has stated that :

- (i) The first misconception was that the said treatises on logic were representing the Jain religion,
- (ii) The second false impression was nourished by the above assumption, that the Jain philosophy was merely a collection of the ideas of other philosophies.

The second illusion can be wiped off if the first one is proved false. The fundamental and original treatises of Jain philosophy are *Agamas*. These scriptures truly represent Jain philosophy. A serious scholar of these scriptures will ascertain that Jain philosophy is not merely a collection of others' ideas.

**Shadjeev Nikaya, Lok-Alokavad, Panchastikaya, Parmanuvad, Tamaskaya** and **Krishnaraji** is the novel ideas which are testimony to an entirely independent identity of the Jain philosophy. While establishing the originality of Jain philosophy, Acharya Siddhsen has said:

“My Lord, I do not need to provide much evidence to prove Your Omniscience. **Shadjeev Nikayavad**, expounded by You, Is the strongest evidence of Your Omniscience?”

**Shadjeev Nikayvad** states that life exists in six types of bodies. Out of six bodies, five bodies are immobile in nature. The immobile bodies in which the life is present are: lump of stones, water, fire, air and the bodies of vegetation. They have only one sense i.e. a touch sense. On the other hand mobile bodies may have two senses, or three, or four or five senses. The declaration of Lord Mahavira that life is present in the immobile bodies is remarkable a contribution because such knowledge was out of reach for an ordinary person at that time. Acharya Sidhsen has therefore, praised Mahavira for his omniscience.

### **Jain Agams**

Some foreign scholars, particularly Germans, believed that first **Shrutskandha** of **Acharang** scripture is the oldest composition from the point of view of contents, language and style. Mahapragya has considered the Jain literature in its totality without dividing it in the periods of composition. According to him, Agams were composed in written form by various groups of Acharyas all of whom had the same base – the

knowledge contained in '*Purvas*'. In fact the '*Purvas*' were the soft copies of Jain philosophy which remained stored in the supreme computer – human brain. The hard copies in the form of *Agams* were composed almost after a thousand years. Before writing down the vast ocean of Jain knowledge, a large group of Jain Acharyas held several meetings and concluded to distribute various subjects to different groups. This scheme resulted in faster implementation, as the work on different subjects was carried out simultaneously. Since the basic material available with all the groups was same, the '*Purvas*', therefore some repeatability was inevitable. Mahapragya considers *Acharang Sutra* to be the first work from the point of view of this plan of action. However, he renders the actual chronology as redundant because the entire picture emerges only when all the constituents of the jigsaw puzzle were placed together. With this exposition, confusions and controversies were put to rest which had originated on account of different subjects being taken up in different scriptures. According to this scheme, a particular subject was taken up in detail in one scripture, whereas, treated symbolically in another scripture. Commenting in this context, Mahapragya has enumerated various subjects being dealt with in the *Dwaadshangi* (Twelve Angas) of *Samvayang* and *Nandi* scriptures:

1. In *Acharang*, as the name suggests, life-style, precepts-mannerisms, education-language, etc. of a saint are described in detail. Other subjects find just a mention.
2. Subjects of *Lok-alok* (universe-void), animate-inanimate, philosophical topics of Jains and other doctrines are dealt with in varying degrees of depths in different Agams :
  - i. In *Sutrakritang*, information is in the form of small couplets covering the salient features.
  - ii. In *Vyakhyapragyapti*, these subjects are explained in detail. The frequently asked questions are answered descriptively.
  - iii. In *Sthanang*, the subjects are critically examined and all theories contain their respective justifications.
  - iv. In *Samvayang*, there are either definitions or brief discussion on the above mentioned subjects.

Thus we find that fundamentals have been discussed in all the scriptures, though at some places there is only an incidental reference, at another place there is a brief discussion and at yet another place, a detailed treatment is given. Therefore, the knowledge of a subject becomes complete only when they are all taken together. So, to point out inconsistencies between one scripture and another is not a desirable exercise. It is clear that to evaluate scriptures from a historical periodic perspective would not be meaningful since they have been composed in a schematized manner.

In order to understand the style and contents of the Jain swetamber **Agams**, we may study one of them, the oldest one, the **Acharanga**.

### **Acharanga**

Out of twelve *Angas* (spiritual Texts), first is *Ayaro*. *Ayaro* is synonym of *Acharanga*. The main theme of *Acharanga* is to practice religion in order to liberate worldly soul from the bondage of karma. It has been explained through the migration of the soul. Whosoever can understand the steps followed in the migration of the soul, can easily understand the entire philosophy of Jains. *Soul* and *karma* are the metaphysical terms employed in different Indian philosophies but each philosophy has defined them in their own way. The noteworthy fact in Jainism is that the concept of the soul has been developed, and explained in many spiritual Jain texts, also. *Bhagwati Sutra* describes that each soul adjusts and occupies according to the size of the body in its mundane existence, and when liberated, occupies two thirds of the extent of the last body.

According to the *Niryuktikara*, the first *Shrutskandha* of *Acharanga* scripture enjoys the first place because the *Acharanga* deals with the conduct of ascetics and the practice of three postulates – right perception, right knowledge and right conduct in pursuit of *Moksa* – which is the essence of all. There is no right knowledge without right faith, no conduct is right without right knowledge and without right conduct there is no liberation. That is why the *Acharanga* is regarded to be the first and foremost amongst *Angas*. Hermann Jacobi has pointed out the similarity of archaic style and the linguistic stanzas of *Veda* and *Acharanga*. He observed the use of meters, e.g., *Gayatri*, *Anustubh*, *Brhati*, *Tristubh*; *Jagati* etc. with 6, 8, 9, 11, 12 syllables are common in *Vedas* and *Acharanga* and therefore confirmed that the *Acharanga* is the first and the oldest canon of Jain tradition.

With the passage of time, it is believed that some portion of the text was lost; hence the text has been abridged to a certain extent. Out of the nine chapters of the *Acharanga*, the seventh chapter, “*Mahaparijna*”, has been lost in between 1<sup>st</sup> and 8<sup>th</sup> century A.D.

There are nine chapters in the *Acharanga* but there were some differences in the names as well as in the order. We find the following order in the *Ayaro*, edited by Acharya Mahapragya :

<i>Sathaprima</i>	-	Comprehension and Abandonment of weapons of injury
<i>Logavijao</i>	-	Pondering over the nature of world
<i>Siosanijjam</i>	-	Endurance of cold and hot
<i>Sammattam</i>	-	Right view
<i>Logosaro</i>	-	The essence of the world
<i>Dhuyam</i>	-	Shaking off through austerity

- Mahaparijna* - The Great comprehension and Abandonment
- Vimokkho* - Liberation
- Uvahanasuyasam* - The treatment of penance

Dr Schubring has pointed out that in the text edited by him the *Acharanga* consists of a good number of poetic verses along with prose.

### **Subject Matter**

The main contents of *Acharanga* are as follows:

1. Concept of soul and non-violent activities of ascetics
2. Sensitivity to nature
3. Narration of authentic ascetic life of Lord Mahavira.

#### **1. Concept of soul and non-violent activities of ascetics**

The very first chapter of *Acharanga* starts with the concept of soul and non-violent activities of ascetics mainly the life-style, precepts-mannerisms, education-language, etc. are described for liberation of soul. In the chapter of metaphysics of this book, some reflections on the characteristics of the soul are already made.

##### **(i) Concept of Soul**

Soul exists. Souls are infinite in number. However, each soul has its own independent individuality, meaning thereby that each soul has its own independent existence. Neither is there any supreme entity like 'God' of which they are parts, nor are they the manifestations of '*Brahma*'. 'Pleasure and pains are self-inflicted' — this dictum clearly proclaims the independence of the soul.

It is eternal, as time is eternal.

It is the subject of action - it is the doer.

It reaps the fruits - karma. Karmas cause suffering.

All suffering sprouts out of passions.

There is Nirvana - emancipation.

There is path to attain emancipation - Nirvana

##### **(ii) Passions**

Consciousness is the characteristic i.e. special attribute of the soul. Empirical souls are in bondage with *Karmas*. *Karmas* cause suffering. Mahavira says 'For comprehending the misery of the world avoid its cause-passion. All the sufferings sprout out of passions. Violence is also a cause of suffering. Suffering is caused by passions. If the seed of passions is crushed, suffering gets eradicated altogether i.e. transcends the cyclic path

of births and deaths.' *Acharanga* says, 'Only he who knows the transmigration is the upholder of the doctrine of soul, world, karma and action.' It is possible because bondage and emancipation, both are our own creations. There is an interesting description of the vicious circle of passions.

He who sees anger sees pride.

He who sees pride sees deceit.

He who sees deceit sees greed.

He who sees greed sees love.

He who sees love sees hatred.

He who sees hatred sees delusion.

He who sees delusion sees conception in the womb.

He who sees conception sees birth.

He who sees birth sees death.

He who sees death sees hell

He who sees hell sees animal life.

He who sees animal life sees sufferings.

The wise monk should, therefore, avoid anger, pride, deceit, greed, love, hatred, delusion, conception, birth, death, hell, animal, life and suffering. Conquering of passions is real liberation.

### **(iii) Narration**

Anger is a common passion in human life. It has lot of energy. It should not be suppressed but managed. Let us see how the anger can be managed?

According to modern science, Humans have acquired and evolved several emotions which are hard written in their DNA's. Like other emotions – love, hate, fear, affection etc., anger is one such emotion.

#### **How to manage anger?**

It is believed that an angry person is full of venom and could be dangerous to others like a snake. Though anger is natural and spontaneous, its degrees vary drastically from person to person. However, we can broadly classify the intensity of anger by drawing an analogy. Let us visualize four different surfaces on which an artist inscribes a curve:

1. On stone – such an inscription is everlasting in nature and tough to erase.
2. On wall – relatively less permanent and can be plastered off with some efforts.
3. On sand – such inscriptions are temporary and can be easily erased by a breeze wind.

4. On water – such inscriptions are momentary and vanish as quickly as they appear.

Jain religion describes that the persons falling in the first category exhibit very distinct symptoms – clinching of fists, bloodshot eyes and grinding of teeth. They lose their serenity and in their rage of fury they become ruthless and may commit brutal crimes. In a journal published by the American Heart Association, a study showed that people who are more prone to getting angry are three times more likely than others to have a fatal cardiac arrest. Second, third and fourth depict gradual descent in the intensity of anger.

In spite of very many efforts made in this direction to understand anger and to manage it, we must realise that we cannot get rid of or avoid anger altogether as we are humans, after all. However we can manage the anger.

Greek philosopher Aristotle said, “Anybody can become angry, that is easy; but to be angry with the right person, and to the right degree, and at the right time and for the right purpose, in the right way that is not within everybody’s power – that is not easy”.

Chinese philosopher Confucius said, “When anger rises, think of the consequences.”

Gurdief, a famous Sufi saint says, “If you are angry, do not answer immediately, answer only after a delay of 24 hours. He knew that anger is circumstantial and is rendered redundant once adequate time elapses.”

Lastly, we must form a habit to regret, whenever we lose our temper, or as soon as the angry words are out of the mouth. We can also put a sudden brake on the thought process and concentrate on breath and start counting inhalations and exhalations.

One who is free from passions is a divine soul and experiences peace and happiness here and now. The control on passions causes the individual upliftment and their effect on society is tremendous. It gives birth to the discipline of good conduct and helps in achieving peace.

#### **(iv) Nonviolence**

The first chapter of *Acharanga Sutra* gives the message of non-violence with the details of abandonment of the weapons of violence.

The concept of non-violence is so much highlighted in this chapter that it is included in the fundamental philosophy and ethical practices of Jainism. Truly speaking, Peace and Non-violence are no more subjects of philosophy; they are essentially human conduct. We find in *Acharanga* the detailed study of the non-violent conduct of ascetics; it is the main theme of *Acharanga*. Mahavira says, “All creatures desire to live and none wants to die. Consider all living-beings are just like you, you should not kill them nor get them killed by others.” This wisdom and understanding leads to observe abstinence from

violence. The absence of violence in personal and social life leads to peace. In short, respecting other's existence is nonviolence.

The secret of Non-violence (Ahimsa) "says the *Dasavaikalika Sutra* (6.8)" is self-restraint in regard to all living beings, which was realized by Lord Mahavira. Restraint means giving up all sorts of violent activities. Mental restraint, vocal restraint and physical restraint, all types are required. Self-Restraint is possible only on the acceptance of the existence of soul.

## **2. Sensitivity towards nature**

*Acharanga* facilitates the understanding of super commentary on the concept of non-violence in relation to mobile and subtle immobile living beings which are very important from the viewpoint of environment. According to *Acharanga* souls exist not only in human beings and animals, but also in lumps of earth, in drops of water, in the flame of fire, in the wind and in the vegetation. They have invisible intelligent life forms which fulfill their own functions in nature. All of them experience pain and pleasure, as they encounter violence or compassion. To establish a harmonious coexistent behavior with birds, animals, insects, earth, water, fire, air and vegetation is for human beings a devoted pursuit of Ahimsa. Ahimsa comprises in protecting the legacy of nature. In the universe, if a single strand of the divine web is touched, it would sensitize the entire web. All the animate as well as inanimate elements in the universe are inter-linked precisely as pearls in a chain. In *Ayaro*, the environment reflects ethical sensitivity towards the nature and the imperative of living peacefully in a world of contradiction and pain, selfishness and exploitation, greed and cruelty. In the ancient traditions, religion is believed to help individuals attain peace and happiness.

The attribution of pleasure and pain to the immobile beings such as earth-bodied creatures is an absolutely novel contribution. Jain doctrine, therefore strongly advocates that one must refrain from destroying them.

Jain philosophy has been invoking such a commitment as an integral part of society so that human beings do not tinker with the semblance of nature i.e. the embodied souls of earth, water, etc. The Jains have cultivated the practice to live non-violently with nature, and helped in protecting the environment and ecology. Jain seers attach great importance to the welfare of plant and other one- sensed living-beings and have produced sacred laws for the care of the natural world. In this way Jains uphold the moral, ethical, mental, and physical values of civilized society. Jain ethical values have paid the highest regard to all forms of life and helped to maintain peace in the society.

### **(i) Plant body and Human body-a special reference**

Among the immobile beings, the plant-bodied beings have manifest consciousness. The comparison of the human body with plant body has been described in *Acharanga* as follows:

- As the human body is subject to birth, so the plant-body exhibits signs of birth.
- As the human body grows up, so does the plant-body.
- As the human body is endowed with consciousness and is possessed of the power of cognition, so is the plant body.

In this way the characteristics of birth, growth, nutrition, metabolism, death, disease, the states of childhood, adulthood, and the like consciousness are the most obvious items are described. The comparison of the plant body with human organism in this context attracts the attention of the modern scholars. Suffering is to be avoided; happiness is to be sought for, is the theme of the ethics of conduct. *Acharanga*, therefore describes the details of weapons hostile to the immobile beings.

### (ii) Hostile Weapons

<b>Jivas</b>	<b>Weapons</b>
Earthly	ploughs, and axe, a spade etc.
Water	Sprinkling, filtering, cleansing etc.
Fire	Sand, water, wet plants etc.
Air	Fans, aroma, fire, hostile air etc.
Plants	Scissors, axe, stone, fire, stick etc.

Contact with hostile weapons makes them dead. The description of the doctrine of the weapons of injury to the living beings opens up a new vista of research in this field. For example, in case of *Apkaya* (water), there are many varieties of weapons that kill the water-bodied beings. In *Niryukti*, (6) the weapons described are:

If water is drawn from a well by means of a vessel, straining through a thick smooth piece of cloth, washing cloth, pot, etc.,

The river water is the weapon of pond water.

Earth, soil, alkali, fire, etc., are the weapons of water-bodied beings.

The *Churni* mentions some other varieties of weapons also, such as, change produced in colour, taste, smell and touch. For instance, water when heated becomes slightly brown in colour, smoky in smell, insipid in taste, and hot to touch. The imperfectly boiled water is not lifeless. If the salty, sweet and sour water are mixed together they work as weapons to each other.

In the Upanishads there are discussions about the existence of soul, but the doctrine of six classes of living beings is an absolutely original contribution of the Jains. They are *prathavikaya*, *apkaya*, *tejaskaya*, *vayukaya*, *vanaspatikaya*, *traskaya*. First five are immobile beings. By postulating animated character of the plants and other souls, Jain ethics prohibits the killing or injuring these non-human species.



It is the principle of self-restraint that enforces the duty of non-interference towards other forms of life. Hence Jain teachings were not only ahead of their times but were the predecessors of today's champions of environmental concern and ecological balance. It has given message of shunning violence and reverence for life. Thus it provides a universal appeal.

### **(iii) Concept of Equanimity**

Mahavira has proclaimed the righteousness of equanimity. By observance of equanimity in practical life one can lead a happy social life. *Acharanga* dealt with the principle of equanimity amongst all types of souls. When passions decay, the attributes of equanimity take their place. The virtue of equanimity is the heart of *Acharanga*.

- One should not develop attachment or hatred for one's relation.
- One should not have laxity in self-discipline.
- One should not be proud of one's caste.
- One should not indulge in sensual enjoyments.

### **Eco-friendly**

Mahavira's supreme Truth is "the souls are conscious entities, things or objects are not. The essence of soul is consciousness, not materiality." This philosophy of *Acharanga* gave a new turn to the science of Ethics and advanced the thought process in the direction of peace. Thus philosophies of non-violent consciousness i.e. reverence for life and restraint attitude is the only way to be eco-friendly.

### **(iv) Authenticity**

The *Acharanga* is a very authentic *Agam*. It should be kept in mind that the Jain philosophy is the vision of the *Tirthankar*. Commentators have therefore started the commentary by these words 'one of the chief disciples of Lord Mahavira, Sudharma, spoke thus to Jambo: O, long-lived! I have directly heard this from Lord Mahavira; whatever I am saying is not the imagination of my own mind, but has been told by Lord Mahavira himself. (Ayaro 1.37) Acharya Siddhasena has enumerated six eternal truths contained in the Jain philosophy.

### **(v) Doctrine of Non-Possessiveness**

The majority of scholars identify with the subject matter of the first chapter of the *Acharanga* as far as the message of non-violence is concerned in which the principle of non-injury to life had been propounded. Second chapter deals with the world of passions. It is mentioned that there are four fundamental passions – anger, ego, deceit and greed. All these passions accelerate the sense of 'mine ness' i.e. possession in all activities. The principal cause of violence is the sense of possessiveness. Violence is an effect, possessiveness is its cause. Modern Economics encourages violence by prescribing attachment to wealth. Mahavira on the contrary preached non-attachment

to property. Attachment – dominated enterprises are opined as the foundation of social development. Acceptance of this partial opinion as a complete truth has resulted in the spread of violence and terrorism. Hence “Solve the problem of possessiveness; the problem of violence will considerably minimize”.

### **3. Biography of Mahavira**

In addition to the above, the last chapter of *Acharanga* has described the ascetic life of Mahavira. There are four sections in this chapter; the topics are as follows:

- i. Itinerary
- ii. Resting place
- iii. Hardship.
- iv. Non-treatment of diseases and reduced diet

In this chapter, there is a very realistic description of Mahavira’s practice of asceticism. Mahavira’s power of suffering and infinite tolerance is mentioned in this chapter. There is also the mention of the troubles and hardships inflicted by humans and animals. But there is no mention of the troubles inflicted by ill-divine powers. In later literature there is a description in great detail of such troubles. There is also mention of tolerance towards severe cold and extreme hot caused by the change of weather. This chapter is considered to be an authentic source of the study of the biography of Mahavira.

### **4. Conclusion**

*Acharanga* was composed nearly 2500 years ago, and it states that:

- A plant, like a human, also has consciousness and perception. This is remarkable, as science established this fact hardly a hundred years ago
- Indeed, this canon contains the first formal and detailed proclamation on the environment, which is unparalleled
- The doctrine of the weapons of injury to the living beings opens up a new vista of research in this field.
- The attribution of pleasure and pain to the immobile beings such as earth-bodied creatures is an absolutely novel contribution.
- The doctrine of six classes of living-beings is an original contribution of the Jains.
- Science of Ethics and advanced thought in the direction of peace-process i.e. conservation of environment.
- The philosophy of *Acharanga* gave a new turn to the canon, is the practical and active compassion inherent in the fundamental philosophy and ethical practices of Jainism.

## **JAINISM IN 13 CHAPTERS – WHY?**

The number 13 has been considered an omen in the western world. Jainism is an religion of Arhats i.e. Tirthankars, whose teachings are incorporated in this book, had super knowledge of the self and the universe. They belong to the 13<sup>th</sup> category of the ladder which leads to liberation i.e. moksha. This ladder is known by the name Gunsthans. 13<sup>th</sup> gunsthan is 'Sanyogi Kewli' and is the most auspicious stage of the soul, leading to state of siddhas – perfect salvation i.e. moksha. The author received this favourable expression on the book by Svastishri Charukeerti Bhattarak Ji, shravana belagola. I bow my head to Swamiji.



## Special Features of Book

1. The significance of prayer and *Mantra*
2. Antiquity and contribution of German scholars and Indus Valley Civilization
3. The mass-less karma theory
4. Difference of attributes between gross and fine matter
5. The existence of co-opposites, the very basis of co-existent evolution
6. The acceptance of nonviolence for world peace
7. Ethics and recent developments in Jain society
8. The animate nature and environment
9. The culture of equanimity and vegetarianism
10. Art, iconography and temples
11. The eight point centre of the universe
12. The old concept of numerate, innumerate and infinite
13. Teachings of Lord *Mahavira* from *Acharanga Sutra*, the oldest *Agam* composed just like that of *Vedas*.