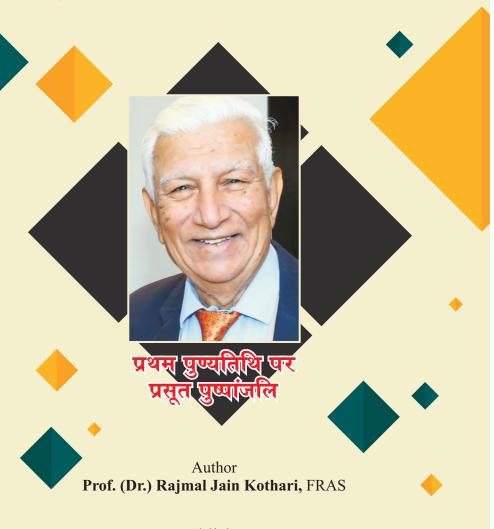
Exploring the Śramana Culture over the Globe – A Mission

विश्व पटल पर श्रमण संस्कृति की खोज - एकिमशन



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प्रथम पुण्यतिथि पर प्रसूत पुष्पांजलि

Author **Prof. (Dr.) Rajmal Jain Kothari,** FRAS

Publisher Shri Bharatvarshiya Digamber Jain Tirth Sanrakshani Mahasabha Lucknow - Delhi

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Author:

Prof. (Dr.) Rajmal Jain Kothari, FRAS National Vice President Shri Bharatvarshiya Digamber Jain Mahasabha New Delhi

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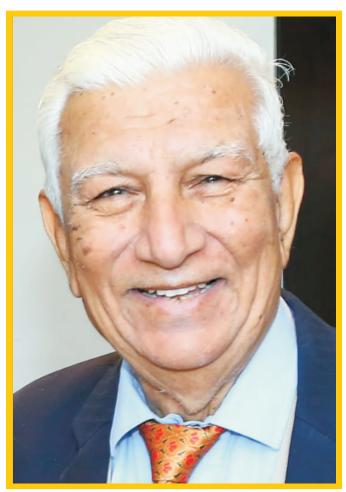
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Email: jainbasant02@gmail.com

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8 जुलाई 1938 – 27 अप्रैल 2021

Prologue

Shri Nirmal Kumar Jain Sethi was a multi-faceted and multi-dimensional personality in addition to his in-depth dedication to religion and monks/Acharyas. These important qualities continued him to be President of Shree Bharatyarshiya Digamber Jain Mahasabha for 40 years. He visited me in my institute "Physical Research Laboratory" (Dept. of Space, Govt. of India), Ahmedabad in 2007 and invited me to join Mahasabha and explore the possibility of Jainism existed in the past outside India. In fact he contacted me in context to my deep involvement in exploring the Ashtapad Mahatirth and my work related to Scientific Aspects of Jainism His interest was very clear that signatures of Jainism should be endorsed in terms of historical, archaeological, anthropological and, more importantly, scientific evidences. Keeping the above ideas and guidelines I joined him and worked with him for more than 14 years and explored Jainism independently and as well as with him. During my visits to abroad for my professional business I had also been exploring the **Sramana** culture and tradition as a part of my duty to Mahasabha. Shri Sethi Ji (popularly known as *Babuji*) was also a great academician and in this context we organized several international and national seminars/ conferences in collaboration with renowned universities over the globe. The output of these seminars/ conferences is enormous and I have been writing research articles based on our findings in the preview of archaeological, religious, historical and scientific aspects and evidences, I am witness of his whole hearted dedication to Jainism and exploration its signatures over the globe. Out of several meetings and visits I specially recall visits to Africa (Ethiopia, Kenya), and South America (Peru, Guatemalan and Mexico), where we got maximum historical evidences of Śramana culture and Nigantha tradition respectively. We could obtain, for the first time, the evidence of long history of Nigantha tradition and the knowledge/ methodology of salvation to achieve the **Kevalajñāna** and even *moksha* that existed even before the pre-history. Babuji wanted me to visit along with him to Thailand and Cambodia and relook in context to my experience in archaeology and science, which, somehow could not be materialized due to corona pandemic. However, I also strongly feel that the Jainism was very widely popular in South-East Asia in general and in Jerusalem in particular. My journey as commitment to Babuji is on and I believe that Mahasabha will fully support to meet the goals.

In this small book I have included only my three articles as a dedication to a great *legendary* person - Shri Nirmal Kumar Jain Sethi, former president, Shri Bharatvarshiya Digamber Jain Mahasabha. These articles reflect his interest to Jainism as a religion and its existence over the globe. I have many memories of our discussions, visit, his future plans and roadmap etc.

Since 2017 he had been involving me almost in all academic activities to organize the meetings or to give financial support to universities etc. He wanted me to do work on scientific perspectives of *Jain Agams* and take them to young mass over the globe to propagate the principles of Jainism. In this context, it was his keen desire to organize an International Symposium on Jain Cosmology under the guidance of Acharya shree Kanaknandi Ji Gurudev, which we organized very successfully with the help of Shri Prakash Ji Badjatya. Nevertheless, Babuji, I am proud to say that I am on this task and will continue to turn your dreams to the truth. Further, during the corona pandemic period we did not give it up our goals, rather, we organized international seminars on every Sunday (2020-2021) and kept the Mahasabha in interaction with scholars within and outside India. He was a great person and I enjoyed working with him.

Babuji Pranam.

Prof. (Dr.) Rajmal Jain Kothari, FRAS National Vice President, Shri Bharatvarshiya Digamber Jain Mahasabha, New Delhi Journal of Archaeology and Culture Vol, 6, year 2019, pp. 237-243 ISSN: 2347-7032

Corona Pandemic transforms the world from physical to spiritual

Prof (Dr.) Rajmal Jain^{1,2}, Prof. Hector Maldonado Felix³, and Mr. Nirmal Kumar Jain Sethi²

- 1. Physical Research Laboratory, Dept. of Space, Ahmedabad-380009, India;
- 2. Shri Bharatvarshiya Digamber Jain Mahasabha, New Delhi, India
- 3. Department of History, Universidad National Mayor de San Marcos, Lima, Peru



Compassion with living beings

Prologue:

Never before in the history has so much fear gripped the human mind as today. In the last century, on one hand we have seen nuclear holocaust and experienced vast progress of science on the other hand. This scientific progress, however, was without control of Spiritual power. Science has removed so many hurdles in our day-to-day life. But at the same time has made our life fearful and miserable. The modern period is an age of space and nuclear power. The scientific and technological inventions have attempted to control the nature and brought it to the services of human beings. But yet the man, society and nation are not satisfied with the gains they achieved. Our selfish emotions for "more" have created an unhappy atmosphere everywhere. The aim to secure this "more" i.e., greed has created a conflict between men, societies and the nations. These conflicts may be observed as many kinds of global issues such as "poverty, socio-economic imbalance, unemployment, health and hazards, earthquakes and volcanos, climate change" etc. The present global pandemic condition due to spread of "Corona Virus" everywhere is also an outcome of the same "more". This virus has locked people inside their houses almost in all countries of the world. For the first time present generation has seen such fear and panic looking at the data of COVID-19 patients and deaths. There is not sufficient place in crematorium and graveyard to

burn or burial the dead bodies in many countries. This has pushed the whole physical and materialistic world to spiritual world. Now, people realise that the consequence of the requiring "more" is transformed into a "cry for good health and peace" all over the world. Just stay for a minute and give deep thinking to address this important question "why and how it happened"? Certainly you will conclude that the materialistic achievements and the technological know-how in the race of "more" could not achieve the peace for men and societies. On the other hand, in the wake and need of "more", we have also destroyed the nature. Almost all components of our environment viz. soil, water, air, fire, and cosmos, which comprise our geosphere and biosphere, are wrecked by us to satisfy our lust for food and other physical show case items. Man has become so much ruthless that in order to satisfy his ego, passion and lustiness he has not only destroyed trees, plants and largely forests but also killed small (one sense) to big (2-5 sense) animals that surviving on the earth, flying in the air and living inside the oceans.

Our experience teaches us that the present pandemic situation over the globe created due to spread of corona virus is not caused by pressure of external circumstances rather it is caused by selfishness, bigotry, passion, intolerance, and hatred in man for man throughout the world. It is not the first time that such pandemic incidence has occurred in the world rather more than 20 such epidemic events have been observed since Indus Valley civilisation (3300 BCE to 1300 BCE) (Wright, 2009), which have killed more than a billion people on the earth. But neither had we learned lessons from them nor we respected the laws of nature. The nature governs the life on the earth as per its laws of bio-cycle and energy conservation, which, on the contrary, we broke down in the lust of our selfishness, passion and ego.

Conflicting moral standards produce social, economic and political maladjustments and cause unrest, violence and war within the nation as well as with other nations. It is, therefore, necessary to moralise socio-political life, which in the complexity of modern life counts so much with us. In this context practicing Non-violence (Ahimsa, अहिंसा) and non-possession (Aparigrah, अपरिग्रह) is most ideal path, shown by Jainism (Zimmer, 1953; Jacobi, 1964; Dundas, 2002; Sethia, 2004; Jain, 2004; Jansma and Jain, 2006; Olson, 2014; Jain, 2020) towards world peace in such a conflicting condition.

In this article we propose that practicing non-violence and non-possession (non-attachment) can remove fear from COVID-2019 pandemic and future such epidemic catastrophe/ havoc as well as can address many other global challenges so as to bring peace and prosperity in the world. We have to change our lifestyle and save the earth, and hence save the humanity.

Non-violence (Ahimsa):

Ahimsa means non-injury to life irrespective to number of sense. Therefore, the ideal Ahimsa is non-injury to other forms of life as well, namely beasts, birds and smaller creatures too. Thus instead of thinking or killing or torturing any life, serving and helping to keep alive the life is an integral part of ahimsa. The strict observance of Ahimsa must avoid three classes of killing 1) Krita-killing i.e., with one's own hand, 2) Karita-killing i.e., through an agent, 3) Anumodita i.e., approval of killing when another does it (Dundas, 2002; Stephen, 2008). Further, to practicing Ahimsa we must avoid any kind of violence that done by thoughts (mind), speaking and physical (Jain, 2020). All these cases must be strictly avoided according to the principle of Ahimsa. The principle of Ahimsa or universal love is based upon the recognition of the kinship of all organisms. This is also a law of nature. Living organisms of different grades exhibit certain common characteristics peculiar to life. The lowest grade of the organic world, one to three sense organisms, forms the larger part of the universe. The plants and trees are living organisms possessing only one sense, the sense of contact or touch. While all other organisms are placed in an environment in which they have to adjust their activities necessarily and inevitably in order to live on. Man has a unique privilege of changing and re-ordering the items of environment to suit his plan of life. This endows man with the creative activity, by which he can live in harmony. This higher capacity in man makes him realise his kinship to the other animals. This realisation of kinship of all organisms imbibes man with an ethical sense of love and sympathy to all living creatures. This is the ethical outcome of the fundamental unity of living beings. Thus Jiv-daya (compassion with all living organisms) and protection of environment are two most important components of Ahimsa. The compassion and kinship with all living beings is the fundamental ethic in Jainism and thereby it says "live and let others live".

Violence (hinsa) is not only in terms of physical but it also includes mental disturbance, which is generally done by some acts like untrue or false information, criticizing and telling lie etc. Thus truthfulness is an integral part of Ahimsa. Similarly, after finding guilty of intentional acts but then apologising is a good habit. Therefore "forgiveness" is also an integral part of Ahimsa. Thus, it is not the infliction of physical injury alone that constitutes Himsa (violence) but violence in words, speech and thought too is Himsa. One must abstain from intentional Himsa caused by one's activities of mind, speech and body. Himsa is caused by entertaining impure thoughts, by activities goaded by passions such as anger, pride, greed, fear, sex-desires and similar impure thoughts (Bose, 1950). On the other hand, equanimity,

non-attachments, control of senses, sacrifice and social service etc. contribute to Ahimsa (Desai, 1960; Paz, 2016).

Ahimsa is the supreme rule of conduct and is known as universal compassion. It includes infinite patience, inner calmness, discrimination, self-sacrifice, and true knowledge. Ahimsa is an attribute of the brave. It does not come within the reach of the coward. It is not a lifeless dogma but a living and life-giving force. Observance of the principle of Ahimsa will lead to the greatest glory. In following nonviolence a person is expected to show kindness and sympathy to all living beings. This character of universal love and mercy to all living beings is the intrinsic human virtue. A person not endowed with such a quality is not far different from the ordinary animal. The unbounded kindness and mercy, the intrinsic divine element in man, must be fully developed so that the human personality may grow to its full stature.

Many people in the world misleadingly eat non-veg foods considering health benefits as they are excellent source of the high quality protein, healthy fat, vitamins and minerals including all the essential amino acids which body requires for important functioning. In fact it is either their misunderstanding or lustiness for food because vegetarian diet provides better and suitable proteins relative to animal sources. Eating a variety of vegetables, grains, legumes, nuts and seeds will supply all the amino acids you need to fulfill the protein requirements for good health (Pawan Tripathy, 2020). A diverse selection of plant foods eaten everyday will supply your body with all the essential amino acids it needs to make sufficient protein — no special food combinations required. Therefore the world must stop killing lives and eating non-veg foods in excuse of proteins. In fact stopping non-veg foods will protect our bio-sphere cycle and hence the nature.

The cult of non-violence or universal love to all living beings is the foundation of the Jain's sacred life leading to the goal of liberation and self-realisation called Moksha (Jain and Jain, 2019). According to Jain tradition, Tirthankar Rishabha was the first to preach Ahimsa-Dharma to the people at the beginning of the present era. Mahavir, 24th tirthankar, led the revival movement for the spread of cult of Ahimsa during 600-500 BC. He taught that Ahimsa Paramo Dharma (अहिंसापरमो धर्मः), which literally means: non-violence is the highest moral virtue, which was very frequently mentioned earlier in Mahabharata, one of the epics of Hinduism. The Mahaprasthanika Parva (Ganguli, 1883; Dutt, 1905) says in its verse:

अहिंसा परमो धर्मस तथाहिंसा परो दमः। अहिंसा परमं दानम अहिंसा परमस तपः। अहिंसा परमो यज्ञस तथाहिस्मा परं बलम। अहिंसा परमं मित्रम अहिंसा परमं सुखम। अहिंसा परमं सत्यम अहिंसा परमं शरूतम।। The above passage emphasizes the pivotal importance of Ahimsa in Hinduism as well as in Jainism, and literally means:

Ahimsa is the highest religion, Ahimsa is the highest self-control, Ahimsa is the greatest gift, Ahimsa is the best practice, Ahimsa is the highest sacrifice, Ahimsa is the finest strength, Ahimsa is the greatest friend, Ahimsa is the greatest happiness, Ahimsa is the highest truth, and Ahimsa is the greatest teaching (Chapple, 1990).

The above verse suggests that, "instead of hatred and greed for more, and killing various lives for lustiness for food" the man should have used Ahimsa for good health, peace and prosperity". This is true even today in the current pandemic and fearful environment created by COVID-2019 because the mighty weapon of Ahimsa has been employed at several times to fight against atrocity or victimisation in India as well as over the globe. We give few examples to quote its applicability and success. The foremost example is application of Ahimsa by Mahatma Gandhi in liberating India from British yoke in last century. The achievement of the Indian freedom under the able guidance of Mahatma Gandhi is a practical demonstration of the cult of non-violence. The invention of Atom Bomb and Hydrogen Bomb can never be relied on as a solution to the present day conflicts of ideologies between the big powers of the world. Mahatma Gandhi stated his belief that "Ahimsa is in Hinduism, it is in Christianity as well as in Islam (Prabhu and Rao, 1966). Gandhi believed that the doctrine of Ahimsa was the greatest contribution that India had made to world culture. He himself understood the principle of Ahimsa in a scientific way and expressed that, "No religion of the world has explained the principle of Ahimsa so deeply and scientifically as is discussed with its applicability in every day human life in Jainism".

The other more recent examples are as follows: 1) In 2010 protests against Prof. K. Kannan, Vice Chancellor, Nagaland University, India was of non-violent in nature but of great success; 2) Protests against Delhi Gangrape case in 2012 were of non-violent in nature (cf. Figure 1), however, observed partly success in almost real time and more successful through justice in the current year 2020; 3) Cesar Chavez advocated for peaceful boycotts, protest, and a grueling yet nonviolent 25-day hunger strike which led to legislative changes to end exploitative abuse of America's farm workers in the late 1960s. He led a five-year strike in Delano, Calif., bringing together over 2,000 farmers to demand minimum wage primarily for underpaid overworked Filipino farmworkers. It was of great success. Few more examples to quote are: 4) in 2015 Dimapur Lynching incidence was protested with violent in nature and therefore was not successful rather it worsened with more victims; 5) The Against Corruption and

Unabated Taxation (ACAUT) protests in Kohima in 2016 for backdoor appointments was purely nonviolent in nature and finally was of great success.



Figure 1: Non-violent protests against Delhi Gang rape in 2012.

The above examples further prove and endorse that the path of Ahimsa (non-violence) is always successful to reach at the destination. Thus we conclude that the human civilization, which is threatened today by power politics, violence, war, and even with current COVID-2019 pandemic, can be saved bypracticing Ahimsa all over the globe.

Aparigrah (Non-possession):

Aparigrah (Non-possession) is the "principle of self-imposed limit to one's own possession", and it is extremely significant and valuable to the present world conditions. The possession does not limit to money alone rather it includes other components of property such as jewellery, land, houses, facilities and infrastructure developed etc. Again Jainism says any worldly man according to his status in society is expected to make a mental decision that beyond a certain amount of acquisition of property, whatever more to him must be devoted to the welfare of society in general and it should not be appropriated by him as his own property. However, the present world order is based upon a scramble for wealth and economic standards, which have resulted in conflicting ideologies of capitalism and communism. Presently absence of *Aparigrah* in almost all countries causes many global issues viz. socio-economic imbalance, poverty, misery, unemployment, illhealth etc. In order to scrambling wealth/ property, land and infrastructures man started to destroy social-systems and even the nature. Currently we are witnessing such rivalry by individuals/ societies to nations throughout the world. As a consequence we have been observing wars employing various kinds of weapons including bio-weapons. It has been in great debate that COVID-2019 is also a bio-weapon from China to expand its territories and spurt economy so as to become world leader. Therefore the object of observing *Aparigrah* is to secure socio-economic stability in society. The social order based upon the vow of Aparigrah will certainly prevent unnecessary accumulation of wealth in a few hands and an undesirable conglomeration of misery, poverty and predicament in many others in society. An equitable distribution of wealth and successful elimination of poverty and misery will be the main characteristics of a welfare state. The undesirable conflict and struggle between capitalism and communism cannot occur in human society, if it is based upon the healthy economic principle of limited personal possession and surrendering the surplus to society as a whole. The conflict between these two ideologies, political and military clashes, could easily be avoided if this ethical principle of Aparigrah is adopted all over the world.

Non-possession is a principle of Satyagraha, a philosophy and practice of nonviolent resistance developed by Mahatma Gandhi. This particular iteration of aparigraha is distinct because it is a component of Gandhi's active non-violent resistance to social problems that were permeating in India and Africa (https://wiki.p2pfoundation.net/non-possession). However, the philosophy of Aparigrah has been ruled out by most of countries and thereby facing various kinds of global issues mentioned above. Nevertheless, on the happy side, it is good that still many individuals contribute funds for welfare of the societies in each nation to eradicate issues related to poverty, heath, education, employment etc.

We quote verse 39 of "Yoga Philosophy of Patanjali" as under: अपरिग्रहस्थीर्य जन्मकथन्तासम्बोध: ।। 39 ।।

"This means when you do not accumulate any property or other materialistic items then you obtain knowledge of your earlier past lives as well as of other species. You become fearless and get clarity in communication with rest of the world i.e., you stand for service of the nature and common folk".

The above verse suggests we should possess or accumulate property/materialistic items to the extent of our requirement and above it should be given away for the society for use of others. If followed this principle honestly then we may avoid all kinds of problems including health issues such as currently related to COVID-2019. Practicing Aparigrah means creating self-confidence in ourselves and realizing our own capabilities. Aparigrah removes fear and teaches not to be greed rather to serve others. Acquisition of property is not an end in itself but only a means for individual experience of happiness. Strict adherence of this principle, will lead mankind along the middle path

avoiding undesirable accumulation of wealth on one side and undesirable concentration of poverty, misery and wretchedness on the other side. The difference between these two could be avoided only by adopting the principle of Aparigrah. This Aparigrah, enjoyed by the Jain faith, is an indispensable moral code to be adopted by every human being. Thus the ideological, political, military conflicts between men, societies and nations can be avoided with the adoption of the path of non-violence and Aparigrah. The current pandemic situation is also a result of conflicts among societies and nations. The various virology labs in different countries are not dedicatedly working to researching for vaccine rather they are also working to discover new and new variety of virus that may be used as bio-weapon. It is widely known that such researches are selfish motives of societies/ nations, forgetting the laws of nature and morality, for self-empowering over the world. This is the main root cause of conflicts among countries and creating unrest and misery in the world. As a consequence, presently the whole world is seriously suffering and sick from corona virus, which, perhaps, exported all over the world in the selfish-interest by one country. This COVID-2019 has not only been killing people but also disturbing socio-economy structure of many countries over the globe and as a result poor folk and weaker sections are in serious trouble.

Conclusion:

We believe that the selfish motives behind various conflicts among societies/ countries can easily be removed with two principles: *Ahimsa* and *Aparigrah*. It is hoped that the world would understand the cult of non-violence and non-possession. If it is well understood and sincere attempts are made to practice by any walk of life the adoption of Ahimsa and Aparigrah is the only path to achieve permanent peace and prosperity in the world. Practice of these two principles will lead everyone to enhance mental, spiritual and physical fitness, which will enable everyone to come out of fear from current COVID-2019 pandemic as well as any other such fear or terror from future pandemic or war. Current pandemic also teaches us that "Nature is Truth and Truth is Almighty", so if we are not able to understand the Nature then to understanding the Almighty does not exist. We should also remember that we are Guest on the earth and NOT the Owner of it. Therefore serving and protecting all kind of life on the earth is our moral responsibility, which is an important aspect of Jainism.

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Exploring Śramana Culture/Jainism in the Tigray Region of Ethiopia

Prof. (Dr.) Rajmal Jain, FRAS, FGSA, FJAS

Physical Research Laboratory, Dept. of Space, Govt. of India, Ahmedabad, Shree Bharatvarshiya Digamber Jain Mahasabha, New Delhi 110001 Ahimsa Mission Foundation, Ahmedabad, India

Dedicated to

Late Shri Nirmal Kumar Jain Sethi, National President, Shri Bharatvarshiya Digamber Jain Mahasabha, New Delhi 110001, India

Abstract:

The excavations in the Ethiopia in general and in the Tigray region in particular revealed that in the early or even before the first millennium BCE a distinctive sacral architecture, characteristic sculptures, and inscriptions indicating religious beliefs related to the Sabaean pantheon. This resulted from cultural interchange with South-Arabia, especially with the flourishing kingdom of Saba. On the other hand, the existence of Śramana culture over the globe since the evolution of intelligent human being is also widely known. Thus it is of utmost importance to explore the possibility of Śramana culture in the Tigray region of Ethiopia. In this context we visited Mekelle University and organized an international conference during May 2017, and also visited the various site of the Tigray region. In the current investigation we present evidences revealed from the study of artifacts, iconographic, archaeological, anthropological and historical details obtained from the various sites, and conclude that the Śramana culture existed not only in Asia before the one millennium BCE but also existed in the Saudi Arabia, Yemen and Africa i.e. on both sides of the Red Sea as evidenced from the trade relations. Further, the historical, anthropological and archaeological remnants and artifacts in the Tigray region revealed that the Moon Temple in Yeha and Almagah Temple in Wukro were basically Jain temples of Shri Chandraprabhu and Shri Aadinath (Rishbhadev) respectively and constructed almost one millennium BCE, before the birth of Shri Parshwanatha and Shri Mahvir, 23rd and 24th tirthankars of Jain religion respectively. Our study also suggested that the current society of Orthodox Christians in Africa was basically the community practicing the Śramana culture.

1. Introduction:

In the early or little before first millennium BCE new features indicative of complex socio-economic structures appeared in the northern Horn of Africa. A number of these features, for example the emergence of a distinctive sacral architecture, characteristic sculptures, and inscriptions indicating religious beliefs related to the Sabaean pantheon, resulted from cultural interchange with South-Arabia, especially with the flourishing kingdom of Saba. The excavations in the 1950s and 1960s at prominent sites with apparently strong Sabaean contact, such as Yeha, Hawlti, Melazo, and Matara, suggested the

period labelled "Ethio-Sabaean" and a "Pre-Aksumite" kingdom of DKMT, however, based on very poor epigraphic evidence. It was characterized as a strongly South Arabian stimulated polity. However, archaeological evidence of that polity and its Sabaean traits - especially in the sense of monumental objects like architecture - remained limited to a few core sites concentrated in the south of the central highlands of Eritrea and in the northern part of Tigray, especially around Aksum and Yeha, which is considered to be the ceremonial centre of that kingdom. As a result, the approach to the spatial extent of that period and a polity of as well as towards generalizing and ambiguous terms like "Pre-Aksumite" or "Ethio-Sabaean", is now being reviewed rather critically (Finneran 2007: 110f., 117-122, 143-145). The social impact of the Sabaean contact is regarded as being largely confined to the elite only and the rarity of sites are indicative of the polity of the DKMT. This may be considered as a somewhat local phenomenon. For example, the area of Wuqro and K Addi Akaweh, just about 80 km was recently designated as being "beyond its conventionally recognized south-eastern borders". Beside this reasonable critical approach, however, the question arises as to whether such statements are justified as regards the still inadequate coverage of data on archaeological sites beyond the prominent centers and especially south of the Aksum-Yeha region. In view of that situation, rescue excavations under the auspices of the Tigray Tourism and Culture Commission (TCC) have led in 2007 to the discovery of a site of more than local significance: Megaber GaKewa, just a short distance away from the church of Abuna Garimawhich houses three incense burners with Ethio-Sabaic inscriptions found in the vicinity of K Addi Akaweh, situated about 5 km south-west of Wugro; co-ordinates: 39.56E, 13.76 N (Datum Adindan; Godet, 1977). The TCC rescue excavations revealed several cult objects: a perfectly preserved libation altar with a royal dedication, a seated female statue, architectural blocks, and limestone incense burners. Their Ethio- Sabaic inscriptions, which are paleo-graphically dated to the eighth-sixth centuries BCE include references to Almagah and to a hitherto. On the other hand, it is widely known that the Śramana culture and the religion practicing this tradition known as Jainism is a fundamental and independent religion (Jacobi, 1973). The Śramana culture has existing all over the globe since thousands of years before present (Gokul Prasad Jain, 1928) in various forms such as Nirgranth (Nigantha) religion, Śramana culture religion etc. Recent investigation and excavation at Mohenjodaro and Harappa has shown that Jainism existed before five thousands year ago, even though Jains believe it to be eternal. Dr. Rajmal Jain (2012, 2017, 2021) claims antiquity of Jainism to be since the evolution of humanity on the planet. According to him Jainism is not a religion rather it is a science of Nature, Earth and Cosmic order. The Nirgrantha or nigantha (nudeness) was, therefore, adopted to be in tune with the nature. He described (Rajmal Jain, 2021), in this context, that Jainism appears to be eternal since the evolution of human beings with intelligence (sometimes between 50000 and 400000 years BCE). According to Jacobi Herman (1908-1927), there are traces of Jainism even in the Vedic period. Zimmer (1953) observed the existence of the Śramana culture before the Aryans in India suggesting existence of Jainism before arrival of Aryans. The Jainism is like the universe, which has neither been created, nor it will be

destroyed i. e universe/ nature has no beginning and no ending (Acharya Kanaknandi, Vishwa Dravya Vigyan, 1983, 2014).

Thus, in view of the aforesaid two contradictory opinions about the artifacts, archaeological, historical and anthropological evidences viz. Sbaean tradition and Śramana Culture we at All India Digamber Jain Heritage and Preservation Organization (AIDJHPO), a unit of Shri Bharatvarshiya Digamber Jain Mahasabha, New Delhi felt to explore the Jainism outside India under the leadership of Shri Nirmal Kumar Jain Sethi, National President of the Mahasabha. Shri Sethi gave me responsibility to take the lead to explore the Śramana culture/ Jainism in African continent in general and in Ethiopia and Kenya in particular. In the current paper we present study of exploration of śramana culture in the Tigray Region of Ethiopia.

2. The Tigray Region:

Tigray Region is the northernmost regional state in Ethiopia. Tigray Region is the homeland of the Tigrayan, Irob and Kunama peoples. Its capital and largest city is Mekelle. Tigray is the fifth-largest by area, the fifth-most populous, and the fifth-most densely populated of the 10 Regional States of Ethiopia. Tigray's official language is Tigrinya, rather similar to that spoken in nearby country namely Eritrea just to the North (cf. Figure 1). The total population is more than 7 million. Almost 80% people are engaged in agriculture and contributing 46% to the regional gross domestic product. The highlands have the highest population density, especially in eastern and central Tigray. The much less densely populated lowlands comprise 48% of Tigray. Tigrayans are predominantly Orthodox Christians, making up 96% of the population ("Census 2007", Tables 1, 4, 5, 6, Govt. of Ethiopia). Shown in Figure 1 is the Tigray region bordered by Eritrea to the north, Sudan to the west, the Amhara Region to the south and the Afar Region to the east and southeast. The Red Sea and across it the Yemen and Saudi Arabia may be noted. Besides Mekelle the Tigray has many historically important cities and towns such as Adigrat, Aksum, Shire, Humera, Adwa, Adi Remets, Alamata, Wukro, Maychew, Sheraro, Abiy Adi, Korem, Qwiha, Atsbi, Hawzen, Mekoni, Dansha and Zalambessa. There is also historically significant town of Yeha.



Figure 1: The map of Ethiopia showing neighboring countries. Especially the Red Sea and across it the countries Yemen and Saudi Arabia may be noted. The Tigray region is close to these countries as well as Eritrea which was earlier an integral part of it.

Since the 3rd millenium the Tigray is often regarded as the cradle of Ethiopian civilization as well as the sacred land. It was also here in Tigray, that few hundred years back two religions, Judaism and Christianity, arrived in Ethiopia. However, in the current investigation we wish to emphasize on the presence of a large temple complex and fertile surroundings, the capital of the 3,000 year old kingdom of D ' mt may have been near present-day Yeha (Shaw, Thurstan, 1995). We also study other parts of the Tigray region to explore the Śramana Culture.

2.1 D' mt Kingdom:

D'mt (Da'?mat) was a kingdom located in Eritrea and northern Ethiopia that existed during the 10th to 5th centuries BC. Few inscriptions by or about this kingdom survive and very little archaeological work has taken place. As a result, it is not known whether D' mt ended as a civilization before the Kingdom of Aksum's early stages, evolved into the Aksumite state, or was one of the smaller states united in the Kingdom of Aksum possibly around the beginning of the 1st century (Uhlig, Siegbert, 2005). This kingdom developed irrigation schemes, used ploughs, grew millet, and made iron tools and weapons. Some modern historians including Stuart Munro-Hay, Rodolfo Fattovich, Ayele Bekerie, Cain Felder, and Ephraim Isaac consider this civilization to be **indigenous**, although **Sabaean-influenced** due to the latter's dominance of the Red Sea, while others like Joseph Michels, Henri de Contenson, Tekletsadik Mekuria, and Stanley Burstein have viewed D' mt as the result of a mixture of **Sabaean and indigenous** peoples (Phillipson, 2009). The most recent research, however, shows that Ge'ez, the ancient Semitic language spoken in Eritrea and northern Ethiopia in ancient times, is not derived from Sabaean (Kitchen, Andrew, Christopher Ehret, et al., 2009). There is evidence of a Semitic-speaking presence in Eritrea and northern Ethiopia at least as early as 2000 BC (Nadia Durrani, 2005, Herausgegeben von Uhlig, Siegbert, 2005). It is now believed that Sabaean influence was minor, limited to a few localities, and disappeared after a few decades or a century, perhaps representing a trading or military colony in some sort of symbiosis or military alliance with the civilization of D mt or some other proto-Aksumite state (Phillipson,, 2009; Munro-Hay, Stuart, 1991).

After the fall of D mt in the 5th century BC, the plateau came to be dominated by smaller unknown successor kingdoms. This lasted until the rise of one of these polities during the first century BC, the Aksumite Kingdom. This Aksumite Kingdom was able to reunite the area (Pankhurst, Richard K.P.; *Addis Tribune*) and is effectively the ancestor of medieval and modern states in Eritrea and Ethiopia using the name "Ethiopia" as early as the 4th century AD (Henze, Paul B., 2005; Munro-Hay, Stuart (1991).

2.2 Aksum Kingdom:

The Empire of Aksum at its height at times extended across most of present-day *Eritrea*, Ethiopia, *Djibouti*, Sudan, Yemen and Saudi Arabia (*cf.* Figure 1). The capital city of the empire was Axum, now in northern Ethiopia. Today a smaller community, the city of Axum was once a bustling metropolis and a cultural and economic hub. Two hills and two streams lie on the east and

west expanses of the city; perhaps providing the initial impetus for settling this area. Along the hills and plain outside the city, the Aksumites had cemeteries with elaborate grave stones called *stelae*, or *obelisks*. Other important cities included *Yeha*, *Hawulti-Melazo*, *Matara*, *Adulis*, and *Qohaito*, the last three of which are now in Eritrea. By the reign of *Endubis* in the late 3rd century, it had begun minting its own currency and was named by *Mani* as one of the four great powers of his time along with *China* and the *Sassanid* and *Roman* empires. It converted to *Christianity* in 325 or 328 under *King Ezana* and was the first state ever to use the image of the cross on its coins ("Aksum", *UNESCO World Heritage Centre*.; "Mountain Constantines: The Christianization of Aksum and Iberia1"(PDF), *users.clas.ufl.edu*.

The Kingdom of Aksum was a trading empire rooted in Eritrea and northern Ethiopia (Phillipson, David, 2012). It existed from approximately 100-940 AD, growing from the proto- Aksumite Iron Age period c. 4th century BC to achieve prominence by the 1st century AD. As shown in Figure 2 Aksum became a major player on the commercial route between the Roman Empire and Ancient India via Red Sea. Aksum managed trade between India and the Mediterranean in ivory, gold, emeralds, silk, spices, agricultural products, salt, exotic animals, manufactured goods, and much more. In the first century CE, Aksum flourished. They could afford to build a powerful navy to patrol the Red Sea and protect their trade routes.

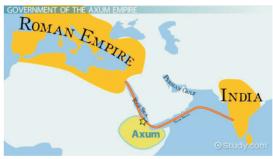


Figure 2: The trade route between Roman and Aksum Empire with India through Red Sea.

2.3 Cultural Transformations:

The trade between Aksum and India was through Red Sea and via presently known Yemen, and Gulf countries since last more than 5000 years BCE (Daniel McLaughlin Yemen: The Bradt Travel Guide p. 4). India was well developed and highly cultured country with sound economic conditions as well as in trading of various products. The high culture society and tradition of art and education, defense and agriculture and producing agro-products etc. were basically a follow up of Śramana culture established by Shri Rishabhdev, the first tirthankar of Jainism (Rajmal Jain, 2021). The Śramana culture developed around few tens of thousands of years BCE all over the globe in general and in Euro-Asia and Africa in particular (Gokul Prasad Jain, 1924). The history of Yemen describes the cultures, events, and peoples of what is one of the oldest centers of civilization in the Near East (Arabian Peninsula, 2000-1000 B.C; Timeline of Art History, The Metropolitan Museum of Art). Its

relatively fertile land and adequate rainfall in a moister climate helped to sustain a stable population, a feature recognized by the ancient Greek geographer Ptolemy, who described Yemen as Eudaimon Arabia (better known as "Happy Arabia"). Yemenis had developed the South Arabian alphabet by the 12th to 8th centuries BCE, which explains why most historians date all of the ancient Yemeni kingdoms to that era. Between the 12th century BCE and the 6th century CE, it was dominated by six successive civilizations which rivaled each other, or were allied with each other and controlled the lucrative spice trade: Ma'in, Qataban, Hadhramaut, Awsan, Saba, and Himyar (Arabian Peninsula, 2000-1000 B.C.; Timeline of Art History, The Metropolitan Museum of Art). With its long sea border between early civilizations, Yemen has long existed at a crossroads of cultures with a strategic location in terms of trade on the west of the Arabian Peninsula. Large settlements for their era existed in the mountains of northern Yemen as early as 5000 BCE (Daniel McLaughlin Yemen: The Bradt Travel Guide p. 4). Although little is known about ancient Yemen and how exactly it transitioned from nascent Bronze Age civilizations to more trade-focused caravan kingdoms, but since long it has been known that Yemen and nearby countries/ settlements were greatly influenced by Sramana culture.



Figure 3: Sabaean inscription addressed to the moon-god Almaqah in the Tigray region, Ethiopia, mentioning five South Arabian gods, two reigning sovereigns, and two governors, 7th century BCE. The Moon-god temple exists in Yeha, near Aksum, Ethiopia, looks more likely to be a Chandra Prabhu temple of Jain tradition.

The Sabaean Kingdom came into existence before the eleventh century BC (Kenneth Anderson Kitchen (2003). There were four major kingdoms or tribal confederations in South Arabia namely Saba, Hadramout, Qataban and Ma'in. Saba is believed to be cultured Sheba and was the most prominent federation (Geoffrey W. Bromiley. The International Standard Bible Encyclopedia. 4. p. 254. ISBN 0802837840). The Sabaean rulers adopted the title Mukarrib i.e. "unifier", which means a "priest-king", similar to Sramana Culture tradition in the past. The role of the Mukarrib was to bring the various

tribes under the kingdom and preside over them all (Daniel McLaughlin, 2007). The Sabaens basically were highly influenced with Sramana culture which was expanding from east to west. In this process transformation of Sramana culture took place and Sabaens perhaps adopted Sramana religion as evidenced from the Saba's knowledge of agriculture, alphabets, defense, culture etc., which are the fundamental concepts of Śramana culture (cf. Inscription - Figure 3) as well as the Priest-King philosophy. However, between 700 and 680 BCE Sabaean Mukarrib Karib'il Watar I changed his ruling title to that of a king (Werner Daum, 1987), and conquered the entire realm of Awsan, expanding Sabaean rule and territory to include much of South Arabia (The kingdoms of ancient South Arabia". British Museum. Archived from the original on 2013-12-03. Retrieved 7 February 2014). Lack of water in the Arabian Peninsula prevented the Sabaeans from unifying the entire peninsula. Instead, they established various colonies to control trade routes. As shown in Figure 3 evidence of Sabaean influence is found in northern Ethiopia, where the South Arabian alphabet religion and pantheon, and the South Arabian style of art and architecture were introduced (George Hatke, 2013; Teshale Tibebu, 1995 and Peter R. Schmidt, 2006), which are the integral concepts of Sramana culture (Rajmal Jain, 2021). Further, the Sabaean created a sense of identity, harmony, uniformity, equality etc. through their religion which are also nuclide around Śramana culture (Rajmal Jain, 2021). For centuries, the Sabaeans controlled outbound trade across the Bab-el-Mandeb, a strait separating the Arabian Peninsula from the Horn of Africa and the Red Sea from the Indian Ocean (D. T. Potts, 2012).

3. The Śramana Culture:

Śramana (Sanskrit: श्रमण; Pali: samana) means "one who uplifts himself by performing acts of austerity, ascetic" (Monier Monier-Williams, श्रमण śramana, Sanskrit-English Dictionary, Oxford University Press, p. 1096). The term Śramana is found in both Buddhist and Jain canonical texts (Olivelle, Patrick, 1993). The Śramana tradition includes Jainism (Zimmer, 1952), Buddhism, and others such as the Ājīvikas, Ajńanas and Cārvākas (Svarghese, Alexander P., 2008; AL Basham, 1951). The followers of the Śramana culture believe in the existence of Atma (jiva, soul) and its liberation to achieve Moksha. Śramanians further believe that the whole universe is full of Jiva (soul) and pudagala (ajiva/matter). The śramana culture arose from the time of the first tirthankar Shri Rishabhdev, almost few thousands of years BCE, when he taught new professional ways to begin the human civilization (Aadi Purana originally written by Acharya Jinasena in Sanskrit and translated in Hindi by Shri Panna Lal Jain, 1944). It continued for thousands of years and evolved and spread all over the globe. The 24th tirthankar Mahavir reviewed the Śramana tradition and described in greater detail to adopting in daily life. The Śramana culture became very popular particularly in the circles of mendicants in ancient India that led to the development of meditation and yogic practices (Samuel, 2008), probably in the sixth or fifth century BCE, around the period of Mahavir (599-527 BCE). Yogic and meditation practices developed in the same ascetic circles as the early Sramana movements observed in Jains, Buddhists, and Ajivikas. The Śramanic traditions have beliefs in the concept of soul, fatalism to free will, idealization of extreme asceticism to that of family life, wearing dress to complete nudity in daily

social life, strict ahimsa (non-violence) and vegetarianism (Padmanabh S Jaini, 2000, 2001).

Dr. Rajmal Jain (2021) described that long back Shri Rishabhdev started the religion of Nature and cosmic order, which after Mahavir known as Jainism, the followers of it are known as Śramanic. Shri Rishabhnath also taught six main professions to the folk of his kingdom viz. (1) Asi (defense), (2) Masi (writing skills), (3) Krishi (agriculture), (4) Vidya (knowledge), (5) Vanijya (trade/ commerce) and (6) Shilp (crafts) (Pande, Govind, 1957). In other words, he is credited with introducing *karma-bhumi* (land of actions) by founding arts and professions to enable householders to sustain themselves (Olivelle, Patrick, 1993). Rishabhanatha is also credited in Jainism to have invented and taught fire, cooking and all the skills needed for human beings to live. In total, Rishabhanatha is said to have taught seventy-two sciences to men and sixty-four to women (Olivelle, Patrick, 1993). The institution of marriage is stated to have come into existence after his marriage marked the precedence. Rishabhanatha, in Jain culture, is thus not merely a spiritual teacher, but the one who founded knowledge in its various forms, and therefore he is depicted as a form of culture hero for the current cosmological cycle (Padmanabh S Jaini, 2001).

According to Prof. Govind Pande (1957) Jains were same as the Niganthas mentioned in the Buddhist texts, and they were a well-established sect when Buddha began preaching. He states that "Jains" appear to have belonged to the non-Vedic Munis and Śramanas who may have been ultimately connected with pre-Vedic civilization". The śramana system is believed by a majority of Jain scholars to have been of independent origin and not protest movements of any kind, and was pre-Buddhist and pre-Vedic (Sonali Bhatt Marwaha, 2006). On the other hand, some scholars posit that the Indus Valley Civilization symbols may be related to later Jain statues, and the bull icon may have a connection to Rishabhanatha (Purusottama Bilimoria; Joseph Prabhu; Renuka M. Sharma, 2007); Robert P. Scharlemann, 1985) and Institute of Indic Studies, Kurukshetra University, 1982). The Śramana tradition includes Jainism of 9th-century BCE, Buddhism of 6th-century BCE, and others such as Ājīvika, Ajcana and Cārvāka. The Śramanians believe in the principles of Jainism and thereby worship 24 tirthankaras.

4. Exploring the Śramana Culture in the Tigray Region:

In order to exploring the Śramana culture All India Digamber Jain Heritage and Preservation Organization (AIDJHPO), a unit of Shree Bharatvarshiya Digamber Jain Mahasabha, and Dept. of Philosophy, Mekelle University, Ethiopia jointly organized a two day international conference on "African and Jain Philosophies: Indigenous Enlightenment in Peace Building" at Mekelle University during 17th and 18th May 2017. It was attended by more than 18 Indian and 20 Ethiopian scholars. During the various presentations and discussions we found that there are few ethnographic and anthropological evidences in current religious and functional traditions of the present Orthodox Christian community. Some of the practices like fasting, vegetarianism during fasting period, offering of things by both the hands and observation of Maun (silence) etc. are still prevalent in this society. Moreover, the belief by this Orthodox Christian society in the soul and its liberation to achieve the moksha employing the concept of Karma, similar to the Śramana

Culture was a major motivation for the Indian scholars team to gather more knowledge and investigate the evidences, which may prove that this community was pertaining to Jainism before the arrival of Orthodox Christian Religion in the 4th century AD. In this context, we planned to visit Churches of this community and to hold discussions with the priest, and to visit the archeological sites in the Tigray region. With these aims we visited the Almaqah, Yeha, and Aksum sites for further research to probe the linkages with the Śramana Culture in general and with Jain heritage in particular. Our discussions with many Ethiopian scholars and demonstrators of the sites and museums revealed that almost many sites are excavated or under excavation by German archaeologists through a bi-lateral agreement between German and Ethiopian governments. Therefore we organized several discussions with German Embassy in Addis Ababa and archaeologists.

4.1 The Great Moon Temple of Yeha:

The German archaeologists dated the YEHA Temple, known as the Moon Temple, of 7th century BCE on the basis of carbon dating conducted by them. This suggests that the temple was constructed between the period of 23rd tirthankar Parshwanath and 24th tirthankar Mahavir. On the other hand, the inscription of historical events and records posted on the walls of the museum of Aksum reveal the civilization and construction around 12th century BCE, much before the birth of Pashwanatha. The temple appeared to us to be of 8th tirthankar Chandraprabhu of Jain tradition. We describe below the evidences in terms of iconography, artifacts and remnants observed by us during our two visits of the Tigray region in general and the Aksum and the Yeha Moon temple in 2017. Shown in Figure 4 is the entrance of the Moon temple.

The oldest standing building in Ethiopia is located in the village of Yeha: the great Yeha Temple of the Moon. This is a tower built in the Sabaean style or similar to Sravanbelgola in Soth India, and dated through comparison with ancient structures in South Arabia to around 700 BC, which has been confirmed by radiocarbon dating conducted by German archaeologists. Its "excellent state of preservation" has been attributes to its rededication perhaps as early as the sixth century AD - for use as a Christian church. This suggests that the community belonging to Sabaean tradition was primarily or Śramana Culture (cf. section 2 and 3) in the Tigray region, and was forcefully converted to Christianity. Perhaps this community is the Orthodox Christians, who still follow the traditions of their originality in many ways described later in this section.



Figure 4: Left panel: The sign board of the great temple of Yeha along with archaeological excavation mission between Ethiopia and Germany. Right panel: Main entrance gate of the temple, similar to many Jain temples in India. The temple is located on a small hillock.

The site of Yeha is in a modern town hidden by the Adwa chains of mountains about 53km to the west of the World Heritage Site of Aksum in Tigray State, northern part of Ethiopia. It is located in a fertile basin with an altitude of 2150m surrounded by spectacular volcanic mountain chains. The place is a sacred area for the Ethiopian Orthodox Christians, a living memory and religious practices of the same believers with the original religion, since the foundation of the Monastery of Abune Aftsie in the 6th century AD by one of the Nine Saints who came to the Northern Horn from the Europe and the Middle East for evangelization i.e. to convert Sbaaean/Śramana culture folk to Christian.

The site preserves two complex monumental buildings known as the Grat Be'al Geubri Palace and the Grand Temple of Yeha and two cemetery areas called the rock cut shaft tombs of Da'ero Mikael and the rock cut tombs of Abiy Addi dating to the early of the first millennium BC. It also preserves rich intact underground archaeological structures located around these monumental structures and around the tombs mentioned above dating to the same period.

The Great Temple of Yeha which dates back to about the 7th century BC was dedicated to the god of Almaqah. It was built on a hill top in excellent engineering techniques of dry masonry by joining large dressed blocks of stones. It is a rectangular building measuring 18.5 by 15 meter with a single entrance that survives up to a maximum height of 14 meter. Regular rectangular dressed block of stones up to 3 meter long were used to build its walls without mortar. This kind of construction technology had been in practice in India particularly in building Jain temples viz. Shravanbelgola, Moodbidri in South and Rishabhdev in Rajasthan, and Goricho Jain Mandir currently in Pakistan.

Meticulous attention was given to dress the outer faces, edges and corners giving an impression that the lines among the blocks that were carved into a superb monolithic structure. The walls of the temple are well preserved. The interior of the building presents an amazing construction style where it is possible to see the wall, of which its total thickness is about 60 cm. The floor is also superbly built with five layers of different size of dressed block of stones, some measuring 1m by 50cm, others 1m by 1m and 50cm by 50cm. In Figure 5 we show few iconographic images of the different parts of this Chandraprabhu Temple. Specially, the symbol of the Moon may be noted which all Jain temples employ to represent idol/ statue of Jaina's 8th tirthankar Chadraprabhu. The details of images are described in the caption of the figure.

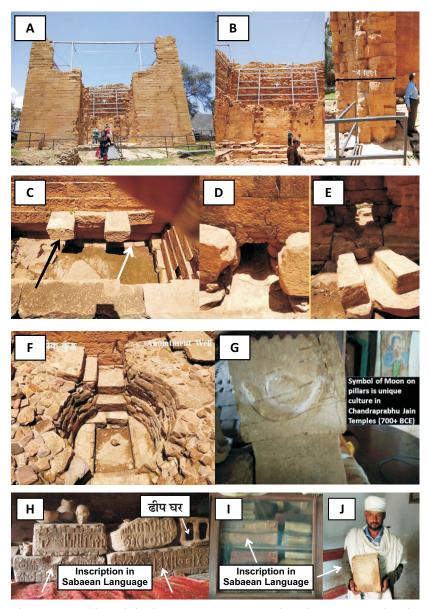


Figure 5: A. Main and single entrance gate to enter into the Moon temple. The large and high walls may be noted, and about 4-feet thick walls may be seen in B. In order to stop further erosion and damage to the structure, walls and artifacts, restoration work started by archaeology department of Ethiopia. The panel C shows the two shafts projecting out of the main wall, shown by black arrow, on which, perhaps, either the structure of the statue was mounted or else were being used to stand for conducting the process of Abhishek

(Anointment). The Abhishek water was flowing into the channel, below the statue, shown in the figure by white arrow, and then was flowing into the outlet channel made inside the temple as shown in Figure panel D. This is wellknown process and engineering technology in Jain temples of old era. The panel E is outlet of the same water as seen from outside of the temple. Purified water was always being preserved in the Abhishek (Anointment) well which still exists and may be noted in the panel F. Most important evidence of this temple to be of tirthankar Chandraprabhu is the symbol of Moon on the main pillars of the grabhgrah. Piece of the pillar with the great symbol of the Moon was obtained, shown in the panel G, inside the room of nearby building which is currently under the priest. Inside this room many other artifacts, stone inscriptions, pieces of the various structures of the temple (panel H) and scriptures (panel I and J) in Sabaean language are stored, which reveal enriched culture of Jainism before 700 years BCE. The baptistery (shower room) was also found inside the temple, which is unique feature in Jain temples constructed until few hundred years back, to take shower by those who offer Abhishek on the statue.

However, transition from the D'mt Kingdom (before 700 BCE to the Axumite Kingdom is not known (Michael Hodd, 2002). Further, the Temple was converted to Church in 6th Century AD (David Phillipson, 2009). The Monastery was moved to its nearby present location in the early 20th century AD. It is, thus, considered by Ethiopians as a sacred place, symbol of national pride and cultural identity which is deep rooted in Ethiopian history in general and the Northern Horn in particular.

The second monumental structure of Yeha is the Palace of Be'al Geubri dating to the 8th century BC which is located about 200 m to the Northeast of the Moon Temple. It measures at least 27 m high with five floors on a squared ground plan of about 60 x 60 m as shown in Figure 6. It has a protruding stepped podium measuring up to 6 m high, built with local stones and lime mortar similar to palace and temples were being constructed in Rajasthan until hundred years before present. It was told to us that this palace was of the same king who built temple and was practicing Sabaean/Śramana culture i. e the ruler was a priest-king. This suggests that the king was from Jain origin. The structures of palace found during excavation by German archaeologists are shown in Figure 6.



Figure 6: The Palace of Be'al Geubri dating to the 8th century BC, which is located about 200 m to the Northeast of the Moon Temple. Shown in panel (A) is the protruding stepped podium approaching to floor. The excavated ground floor reveals (panel B) it to be at least 27 m high with five floors on a squared ground plan of about 60 x 60 m. A broken but the large standing stone graved with statue structure may be noted. The other big stone pieces may also be seen, which were used in building the palace. In the panel (C) a statue of the Jain tirthankar, although broken and not clear, marked by yellow arrow, in the side pose as in padmasan posture may be seen, and it further suggests the king might be of Śramana culture origin. One of the underground rooms may be noted in panel (D) that was used to store most precious and expensive items.

The palace building has axial symmetry with projections at the corners and in the middle sides like the Axumite palaces of the first millennium AD. The entrance is located at the south- eastern flank and is designed as monumental propylene with six monolithic pillars built with local sandstone, and was accessible by ascending wide flight of stairs. The pillars originally had the heights of more than 10 m, of which 3.60 m are still preserved and each pillar weighs about 20 tons. The main stone gate which was built with local sandstone of more than six meter in height has an entrance of 1.10 m wide. The interior of the building has two corridors running in an east-west direction from which all rooms were accessible. Further, it was a multi-storied palace, constructed in wood-stone architecture. It is the largest known timber framed building in East Africa and South Arabia and the oldest example south of the Sahara. It marks the beginning of a long tradition of wood-framed constructions which is crucial for understanding the building traditions in the Northern Horn (https://yehacapital.com/the-cultural-heritage-of-yeha/).

As researches indicate, seventeen series of rock-cut graves dating to the first millennium BC that may have belonged to the rulers who probably lived at the palace of Grat Bea'l Geubri were excavated. These vertical shafts lead to one or more tomb-chambers. The grave contents of these tombs included abundant pottery, copper-alloy sickles, zoomorphic seals, other tools, and an alabaster vessel that witness the artistic and technological sophistication of the time.

We found other cemetery areas called the rock cut shaft tombs of Da'ero Mikael and the rock cut tombs of Abiy Addi dating to the early and middle of the first millennium BC. The tomb found at the foot hill of Abiy Addi, across the valley of Shillanat to the Southwest of the Grand Temple, is shown in Figure 7. Nine rock-cut tombs were partly observed located next to each other in various orientations in an area of 500m^2 . They were cut into the rock up to two to three meters deep. A rectangular shaft of 2×0 , 6 m leads to one or two sub-rectangular chambers with different sizes of up to 0.9 m height and 2--3.8 in length where collective burials took place, most probably successively over a long period during the first millennium BC (https://yehacapital.com/the-cultural- heritage-of-yeha/). Similar rock cut tombs dating to the first millennium BC are not known in the eastern sides of the Red Sea. They are only common in the stratified communities of the Northern Horn dating from the first millennium BC to the early first Millennium AD as it can be understood from some pre-Aksumite and Aksumite sites.



Figure 7: The cemetery areas called the rock cut shaft tombs of Da'ero Mikael and the rock cut tombs of Abiy Addi dating to the early and middle of the first millennium BC. The tomb found at the foot hill of Abiy Addi, across the valley of Shillanat to the Southwest of the Grand Moon Temple. Nine such rock-cut tombs were partly observed located next to each other in various orientations in an area of 500m².

The above archaeological evidence shows that the site of Yeha has outstanding universal values that merit for the inclusion to the World Heritage List. It testifies the earliest evidence for the emergence of complex culture in the Northern Horn in particular and in the sub Saharan Africa in general. This testimony is traceable in the construction techniques and designs of the Palace of Grat Be'al Geubri and the Great Moon Temple and religion and cultural practices, artistic handicrafts and inscriptions. The site of Yeha was also a political, religious and cultural Centre of highly centralized complex societies that flourished at Yeha in the early first Millennium BC, as described earlier, in the form of Śramana, Sabaean and other cultures, largely similar to Nirgrantha philosophy, particularly in the Tigray region. Thus Yeha was also the first capital city of the Ethiopia state before its transfer to Aksum.

4.2 Almaqah Temple:

Almaqah or Almuqh was the Sun God of the ancient Yemeni kingdom of Saba'. He was also worshipped in the kingdoms of D mt and Aksum in Eritrea and northern Ethiopia. Almaqah's symbol is bull's head and the vine motif associated with him may have solar (head 0f the family) and nature/earth/environment attributes. He was therefore a male counterpart of the Sun goddess Shamash / Ishtar / Isis, who was also venerated in Saba, but as a tutelary goddess of the royal Egyptian dynasty (Ryckmans, Jacques, 1987, 1989 and 1992). It may be noted that the symbol of bull also belongs to the Rishabhdev, the first tirthankar of Jainism and founder of Śramana culture, and who developed the philosophy to worship and protect the nature/environment or in other words philosophy of the earth and cosmic order. In this context, it was very motivational to us to explore the Almaqah Temple.

Meqaber GaKewa is a recently discovered site that indicates Sabaean cultural contacts with the Ethiopian highlands. Its main temple, dedicated to Almaqah, was unearthed under the auspices of a joint Ethiopian-German cooperation established in 2008 (Wolf, P. & Nowotnick, U., 2010). The single-roomed temple with a portico and a tripartite sanctuary, situated within a large temenos, clearly resembles South Arabian prototypes and represents the southernmost architectural evidence of Sabaean influence hitherto discovered in Ethiopia. However, many temples of above architecture of the single-roomed may be found in South India of Jain origin. The Jain temple of Halebidu in Hassan district of Karnataka in particular is of similar structure.

A number of well-preserved cult objects of outstanding quality- among them a completely preserved libation altar and a seated female statue - were found at their original places in the temple. Their Ethio-Sabaic inscriptions, paleographically dated to the early first millennium BC, mention the ancient name of Yeha for the first time and refer to a hitherto unknown king. At the same time, they reflect an African aspect by mentioning the king's mother in his affiliation. A cult installation in the central sanctuary, pottery and votive objects such as incense burners, miniature vessels, and female figurines, illuminate liturgical practices predominating in that particular region and period, which are similar to practices in Jain/Śramana culture and conducted even today. Thus it was further motivational to us to visit this temple of Almaqah. In Figure 8 we show the far-view of this temple, when it was in the process of excavation by German team. The architecture and artifacts reveal it to be a Jain Śramana culture temple, which further endorses that Sabaean

culture was basically a Śramana culture. Further, as shown in Figure 9 the idols, few centimeter in size, of female and male protection goddess and god appear similar to Rakshak Dev in Jain tradition viz. Chakreshwari and Gomiukh, mostly found in Rishabhdev/ Aadinath temples. The statues are not highly engraved and well-crafted quality because the temple appears to be earlier than first millennium BC and perhaps at that time the well-developed craft of Indus civilization was already extinct.



Figure 8: The long view of the Almaqah temple during the process of excavation. The temple was built as per Jain culture architecture in few steps viz. Garbh grah, mandap grah, Pooja grah etc., which may be evidenced from the artifacts of ruins of stone structure.



Figure 9: The small size idols of female and male protection gods. Considering the Almaqah temple of Shri Rishabhdev tirthankar, these two idols appear to be of Chakreshwari and Gomukh.

In the excavated Almaqah temple we found a white stone pedestal of rectangular shape with a provision to install the idol for anointment, as shown in Figure 10, at the location of the depression at the center using the holes. The pedestal has two projected bull mouthed outlets (paranala), one inside and the other outside, for the flow of anointment water offered as ablution for the idol

which is especially a culture only in the Jain tradition since the period of Rishabhdev. Further, the presence of two bull headed outlet projection, inside and outside of the pedestal in the Almaqah temple with the possible mounting of the idol in the center, suggests the temple to be of Bull god Shri Rishabhdev/ Aadinath, first tirthankar of Jain tradition.

The entry to the temple is from the east, which has three landings leading to libation altar. On the rear side of the central pedestal i.e. in the west, there are three chambers and thereby the entire structure is enclosed within a compound wall which further suggest that the Almaqah temple to be a Jain temple. The Wukro Museum displays original pedestal of the Almaqah temple along with the other excavated material (cf. Figure 11).

In Figure 11 we show many evidences in the form of artifacts, remnants of statue and temple and inscription. The artifacts and pieces of the statue as well as the remnants of temple pillars and mounting base etc. may be noted in the left panel. In the right panel we show the inscription on the white sandstones blocks that made to mounting one above other. The fractured/broken statue of the idol, shown by red arrow, in standing/kayotsarg or khadgasan posture above the inscription block of the stone may be noted.



Figure 10: Left: The pedestal for the anointment and ablution of the idol. The location to mount the statue/ idol at the center of the pedestal is shown as well as the bull shaped outlet behind the idol mount is shown by white arrow. Right: The second bull shaped outlet projecting on outside of the pedestal is marked by the red arrow. The excavated material mat be noted as well as the remnants of the compound wall may also be noted.

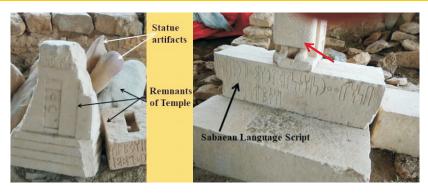


Figure 11: Left panel: The artifacts and pieces of the statue as well as the remnants of temple pillars and mounting base etc. may be noted. Right panel: The inscription on the white sandstones blocks made mounting one above other. Also note the fractured/ broken statue of the idol, shown by red arrow, in standing/ kayotsarg or khadgasan posture above the inscription block of the stone.

The museum displays excavated objects in many individual show cases exhibiting the material culture of that period. We found that except few articles or relics or antiquities, by and large, most of them are in the form of beads, which are in similarity with the Indian culture. Besides it, there are antiquities as Amphora port of Roman trade found all over South East Asia and other countries of the World. The pottery displayed of greater variety appears to be handmade and not well baked. The Black and Red ware of Indian Cultural affinity are also of handmade. There are presence of Mullar and Ouern of granite stone with deep depression in the specimen which depicts their continuous use in long run for the preparation of pastes. Further, there is presence of multi segmented round clay or terracotta oven which in similarity with the Indian culture found in Karnataka and Rajasthan region even at present. The storage jars etc. have affinity with South Arabian culture. There are many specimens of the round pots that were in use as incense burners as part of worshiping in the temple complex, which, however, are identified without any burning marks by the Germans explorers.

Shown in Figure 12 (top panel) is the alleged pedestal engraved with the sign of the Moon along with a dot at the center of the rectangular stone and 9 incense burners like sharp spiked arrows that are made at the top of this rectangular stone. This structure resembles with the Sidha Sila (Right panel) of Śramana Culture. The engraved 9 incense burners represent the sidhhas as may be noted in the right panel. The Siddh Sila is a sacred symbol in Jainism and being worshiped in the Śramana Culture. Jain religious literatures have invariably discussed the Siddh Sila and referred under the Jain cosmology. Siddh sila is an area in Jain cosmology at the apex of the universe, which Jains believe that who have become arihants and tirthankaras go after attaining moksha, and known as siddhas (Kuiper, Kathleen, 2010; Rajmal Jain, 2021).

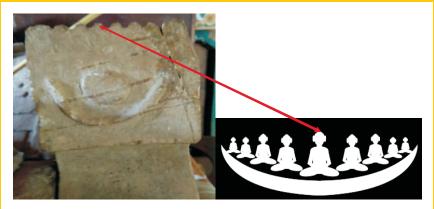


Figure 12: Left panel - The rectangular pedestal stone engraved with the sign of the Moon along with a large dot at the center and 9 incense burners like sharp spiked arrows represents evidence of Siddh Sila and a unique symbol of Jain cosmology. For comparison the Siddh Sila in Jainism is also shown in the right panel. The red arrow represents the Siddhas corresponding to the incense burner.

According to Jain tradition the lower part of the pedestal, non-Moon part, is designated as the seven Hells, while the middle part refers the zone for human and all other living beings. The upper middle part is referred as the Sixteen Heavens. The resemblance of the pedestal engraved with the Moon along with the big dot with the Sidha Sila is important evidence. The dot depicts the seat of pure souls i.e. who attained salvation, which is the fragment of alleged incense burners, and above the middle world while the lower part depicting the seven Hells signifies important evidence. However, from the excavations Germans have identified this object as incense burners which need to be probed further. Germans attempted to identify the script on the Pedestal and other fragments as Ge-ez and interpreted by mistake as sacrifice altars instead of ablution of Idol by placing on the pedestal and associated bull head outlets (parnala) to drain out the ablution water. (cf. Figure 10). This type of provision is invariably found in the Jain Temples for panchamrit Abhishek (ablution) comprised of water, milk, sandal, saffron etc.

We also found evidence as the presence of rolled elephant trunk in pilasters of wooden frame of entrance gate remnants of the temple complex, which are basically features of Indian architecture. In fact the artifacts seen in Figure 13 resemble and represent the six symbols of Jain Cosmic universe, particularly inscribed on the item just below the Moon arch, and visible as an Indus Text, readable from right to left as per lexicon given in the book "Guide book to decipher the Indus script" by Dr Sneh Rani Jain (2017). The second line on the same pedestal is written in Geez of Sabaean tradition as identified by German experts. However, we found many stone slabs with inscriptions in the Moon Temple at Yeha and Almaqah Temple in Wuqro. The inscription appears to be of Brahmi script written in Mirror image from right to left and in retro words. Therefore, in contradiction to the German Archaeologists who proclaimed this temple to be of the Sabaean Culture, our observations reveal

these are inverted images and retro words of Indian oldest Brahmi Script and in Sanskrit language.

Therefore we conclude that the Śramana culture highly influenced the Sabaean culture and they followed as well as practiced.



Figure 13: Top panel are remnants of the temple complex showing structure resembling with the rolled elephant trunk in pilasters of wooden frame of the entrance gate. These are basically features of Indian architecture and represent the six symbols of Jain Cosmic universe, particularly inscribed on the item just below the Moon arch, and visible as an Indus Text (cf. see text). The inscription found on the pedestal of the cult image in Almaqah Temple is visible on the bottom slab and has two numerical words of Western Aramaic which are not in use any more.

A bronze metal caldron that found in the museum with a message inscribed on it in the script of ancient times is shown in Figure 14. The mirror image of the inscription on it read as follows.

"The Sun God appeared 100 years after in the summer seasons to revive the Dharma/Religion".

In this inscription there are three numerical signs of Aramaic and others are in Brahmi script of 3rd century BC of India, period of the Chandragupta, great king of Maurya dynasty. The preliminary translation has been carried out by Mrs. Arpita Ranjan, Assistant Superintending Epigraphist from Archaeological Survey of India. On the other hand according to Prof. Norbert Nebes of DAI German Team the text corresponds to old Sabaean inscription from Saudi Arabia of 1st millennium BC. However, the inscriptions are to be edited and translated against the background of the entire old South Arabic text Corpus published so far (by Helen Weighs). Moreover, the German team could

not give satisfactory response about the Sabaean Culture, which they have assigned to Ethiopia region.



Figure 14: A bronze metal caldron with a message inscribed in the script of ancient times. The mirror image of the inscription on it reads: "The Sun God appeared 100 years after in the summer seasons to revive the Dharma or Religion".

4.3 Aksum's Endorsement:

We visited the Aksum, the historic capital of the Aksumite Empire ("Aksum Ethiopia" - Encyclopedia Britannica, Retrieved 24 February, 2019; Phillipson, David W. 2014). The Aksumite Empire was a naval and trading power that ruled the region from about 1000 BCE due to its closeness to Red Ocean. In 1980, UNESCO added Axum's archaeological sites to its list of World Heritage Sites due to their historic value. Axum is located in the Maekelay Zone of the Tigray Region, near the base of the Adwa Mountains.



Figure 15: Most significant evidences of Śramana culture were found in Aksum. The top and bottom panel iconography images reveal presence of Śramana Saints/ Monks residency, which is also known as Monastery. This residency of several rooms exists underground. The entrance gate is of very high technology of that era (top panel right). Seat (Aasan) of Acharya of the saint group is visible in the left of bottom panel. The meditation hall is shown in the right of the bottom panel.

Aksum endorsed the existence of Śramana culture around one millennium BCE in the Tigray region in view of evidences revealed by wellpreserved artifacts, remnants, historical inscriptions, cultural residuum and discussions with priests etc. Shown in Figure 15 is the major evidence of existence of Monks Residency (Monastery) where the large group of Śramana saints were living and meditating. It may be specially noted that the entrance gate to this underground monastery was made of high-tech of that era. The covering door is made of single-piece rolling stone slab. Further the stones used in this monastery have special sound and upon knocking them they produce sounds of different frequencies. The entrance rolling stone door will be opened upon knocking with special sound. Similarly we found long stone slabs, perhaps, were used as sleeping beds for the saints and sounds were used to communicate with each other or to give calls for the wake-up/ meditation time/ meeting etc. Such stone pedestals with different sounds are also found in the Jain Basadi complex in Halebidu, Hassan district, Karnataka, India. The sleeping stone slabs were given a small curvature on one side to use it as a hard pillow. The monastery has small and big rooms for conducting Dhyaan (meditation) and Pratikraman (retrogression) etc.

The large scale meeting of the saints, teaching by acharyas and upadhyais to all saints, joint discussions, debates and seminars (pravachan) as well as jointly practicing the ethics of Śramana/Jainism (Swadhyai/ selfeducation) were being conducted in the open air halls and rooms. The remnants of the same are shown in Figure 16. It may be noted that this culture is still prevailing in India. The monastery and nearby existence of this saint school endorse that large number of Digamber sadhus (nude saints/ monks) were travelling and rambling in the Tigray region. It may be noted that until the salvation of 24th tirthankar Mahavir (599-527 BCE) only Digamber Jain sect was prevailing. Digambara Sādhu (also muni, sādhu) is a Sādhu in the Digambar tradition of Jainism, and as such an occupant of the highest limb of the four-fold sangha. They are also called Nirgranth which means "one without any bonds". Digambar Sādhus have 28 primary attributes which includes observance of the five supreme vows of ahimsa (non-injury), truth, nonthieving, celibacy and non-possession. A Digambar Sādhu is allowed to keep only a feather whisk (pichhi), a water gourd (kamandal) and scripture (shastra) with him as shown in Figure 17 (left panel). We were fortunate to see incidentally the well preserved and protected water gourd in the Museum of Addis Ababa University (cf. Figure 17, right panel) which further endorses that the Tigray region was highly dominated by the folk of Digamber Jain tradition sometimes one millennium BCE.



Figure 16: Remnants of the open air large and small class rooms (Swadhyai bhavan) for teaching religion and philosophy of Śramana culture by Acharya and Upadhyai to all nude Digamber saints of the group. Discussions, debates and practicing related to religion were also being conducted here in the open air halls.



Figure 17: Left panel - Acharyashree Kanaknandi (center) along with his two fellow sadhus — munishree Suvigyasagar and adhyatmanandi gurudev. The feather whisk in their hands and the water gourd (shown by red arrow) nearby to them may also be noted. Right panel - The water gourd of ancient time, perhaps 100-1000 years BCE, well preserved in the Museum of Addis Ababa University.





Figure 18: The Obelisks (Manak Stambh) near Sant Bhavan (Monastery), a tradition in Jainism to build such four-sided tower (चतुष्कोण स्तम्भ) facing to north-east, a symbolic representation of Śramana culture.

Almost joint to Monks Residency/ monastery we found a large open ground where few Obelisks (Manak Stambh) were constructed as shown in Figure 18. To build an obelisk, four- sided tower (चतुष्कोण स्तम्भ), also called Stela in front of the temple or monastery is a tradition in Jainism. However, the organizational and technological skills of the Aksumites were represented by the construction of stelae (singular: stela/stele). These monuments were created in line of older African traditions and made of single pieces of local granite. In most cases, the obelisks/ stelae mark elite and royal burial tombs. The largest stelae appear to decorate the graves of the Aksumite kings. The monoliths are spread over multiple terrains, including fields in the northern and southeastern sides of the city, the Gudit Stelae Field, and the Central Stele Park. The latter began to emerge as a regional ceremonial and settlement centre around 100 AD, and houses the finest manufactured and decorated monoliths of Aksum. Due to their height and weight, the erection of stelae was not an easy task, and the fact that many had probably already toppled before finishing the job should not come as a surprise. However, in view of history of these Obelisks, we are not sure to consider them as Manak Stambh.

Further, the Ethiopian Orthodox Tewahedo Church claims that the Church of Lady Mary of Zion in Axum houses the Biblical "Ark of the Covenant", in which lie the Tablets of Stone upon which the Ten Commandments are inscribed (Hodd, Mike, Footprint East Africa Handbook, 2002). Ethiopian traditions suggest that it was from Axum that Makeda, the Queen of Sheba, travelled to visit King Solomon in Jerusalem and that the two had a son, Menelik, who grew up in Ethiopia but travelled to Jerusalem as a young man to visit his father's homeland. He lived several years in Jerusalem before returning to his country with the Ark of the Covenant. According to the Ethiopian Church and Ethiopian tradition, the Ark still exists in Aksum. The Aksum is considered to be the holiest city in Ethiopia and is an important

destination of pilgrimages (Linda Kay Davidson and David Gitlitz, Pilgrimage, from the Ganges to Graceland: an Encyclopedia, 2002). However, the Ten Commandments, also known as the Decalogue, are a set of philosophical principles relating to ethics and worship that play a fundamental role in the prehistoric or ancient religion of few thousands of years BCE. The artifacts and other evidences of Aksum suggest that the philosophy transformed to Aksum from Jerusalem was perhaps based on the "Laws of Nature", which is same as the Śramana culture in view that the commandments are similar to ethics of Śramana tradition, for example practicing the fasting, non-possession, non-violence etc. Thus it may be concluded that Jerusalem was perhaps the capital/main center of Śramana culture in the prehistoric era on larger continent on the Earth, which included Asia and Africa. This may also be endorsed in context to similarity between Sabaean and Śramana traditions, which slowly expanded and propagated all over the globe (Gokul Prasad Jain, 1928). It may be further noted that the Jerusalem is one of the oldest cities in the world, and is considered holy/ sacred city even to the viz. Judaism, Christianity, and Islam. Both Israelis religions and Palestinians claim that the Jerusalem as their capital (Smith, William, 2017). However, it is very important to mention that these three religions evolved in last two millenniums before present, while the Sramana culture was in existence at least few millenniums years BCE.

Throughout its long history, Jerusalem has been destroyed at least twice, besieged 23 times, captured and recaptured 44 times, and attacked 52 times (Moment Magazine, Archived from the original on 3 June 2008). There are many evidences suggesting that the Jerusalem had the first settlement much before the 4th millennium BCE, in the shape of encampments of nomadic folk (Greenberg, Raphael; Mizrachi, Yonathan, September, 2013). However, it is important to note that in the Canaanite period (14tth century BCE), Jerusalem was named as Urusalim, evident from the inscriptions on ancient Egyptian tablets, probably meaning "City of Shalem" or the City of Śramana after a Canaanite deity. Thus we may infer that the Śramana culture in Yemen (Sabaean) and Tigray region entered from Jerusalem. The above description and evidences also suggest that Makeda, the Queen of Sheba was inclined towards Sramana culture and therefore she travelled to Jerusalem. married to Solomon and then sent to her son to learn the Śramana culture and bring to the Tigray region of Ethiopia. However, later, after the evolution of Christianity and Islam in 1st century and 7th century AD respectively, Jerusalem as well as the Tigray region were destroyed significantly including very recently built the highest obelisk.

On the other hand, forcefully conversion of the Śramana tradition people to Christianity or Islam was not fully successful as the larger section of the Śramana folk refused to adopt Christianity in complete order. This community is called Orthodox Christian and still follows and practices ethics of Śramana culture. They also consider the whole Tigray region as sacred and holy land of their original religion. This motivated us to study Orthodox Christianity folk in view of their current practicing the ethics and life style etc. Shown in Figure 19 are the images of the Orthodox Church built in last century

in Aksum. We noticed that the structure of the church was greatly different from the traditional old Churches in Europe, USA and Asia, and rather it was more similar to Jain temples. We also found that orthodox Christians when they visit the church follow the same practices as Jains. For example they put on white cloths on the upper part of the body and kneel in front of the main entrance door as shown in the left panel of Figure 19. However, following some rules of Christianity, they light up wax candlestick (मोमबत्ती) instead of Indian candle (दीपक). In order to study the ethics and practices of the orthodox Christians we visited inside the Church and discussed with both Lady Priest and Father. We were astonished inside when we heard the lyrics of the worship/devotion prayers (cf. Figure 19 right panel) matching with Jain holy prayers (पूजा) that sung in the temples in India. However, the script/language were different but could be understandable. Further, the dress code of prayer team and seating ethics may also be noted.





Figure 19: Left panel - The entrance gate of the "Church of Our Lady of Zion" in Aksum. The Orthodox Christians regularly visit the church and prray to God by kneeling at the gate before entering into the church from backside gate. Right panel – Orthodox Christians worshiping the God with lyrical prayer that matching with lyrics of puja conducted by Jains in temples (cf. text for more details).

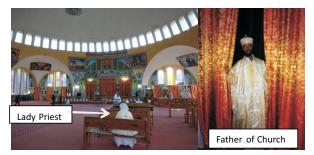


Figure 20: The Lady priest of the Church, shown by arrow in the left panel, briefed about the philosophy, ethics and practices of the Orthodox Christians. Unfortunately Father of the Church, right panel, did not know English and thus it was not possible to communicate directly but the translator helped to tell the history of the Queen of Sheba, her visit to Solomon and the son etc., and about the "Ark of the Covenant" and Ten commandements etc. (cf. text).

In Figure 20 we have shown the Lady Priest (left) and Father of the Church (right). Few orthodox Christians who came for regular worshiping got excited and accompanied us, and helped in translating their Amharic language to understandable English. The lady priest who knew English to some extent briefed the history, original philosophy and ethics of Orthodox Christians. According to her the original religion came from other side of the Red Ocean in the Tigray region about few thousands of years before present, and it was significantly in Sabaean Ge-ez language of Yemen and Saudi Arab of present time. The philosophy of the original religion, by and large, was to attach the people with the "Earth and Cosmic Order", and more nature oriented. It was about one millennium or more BCE when only two religious philosophies (Śramana and Brahmanism) were in existence and dominance in Asia in general and in India in particular. In view of closeness with nature and environment, the Śramana culture propagated and expanded very fast from Asia to Africa and later all over the globe. We all team members were very much impressed with the historical knowledge of the Lady Priest. She as well as the Chief Father Priest told that the forefathers of current Orthodox Christians community were most likely followers of the Sabaean culture, which was derived from the Śramana culture but modified to some extent in view of the oceanic region and time. However, few ethics of the fundamental philosophy were retained until thousand years AD such as non-violence, nonpossession, non-stealing, forgiveness, meditation etc. The Orthodox community was forcefully converted to Christianity in the 1st century AD, and later to Muslims in 7th-10th century after evolution and propagation of Islam. However, Orthodox community still follows and practices a few ethics of mixed Sabaean/ Śramana culture such as observance of fasting for more than 50-200 days in a year, worship the God in the Church in a similar way as was done in the past i.e. putting on white cloths and then seating and kneeling (cf. Figure 19), praying the God with Bhajans/Puja along with music etc. We were further surprised looking at the high-tech crafted and carved Donation Box, kept in the central hall of this Church similar to that found in Jain and Buddha temples even today. Lady priest as well as many Orthodox folk accompanied with us mentioned that they donate some money every day after completion of worship practice. This is in similar practice followed by Ssabaean and Śramana culture followers. In spite of so many wars and attacks, cultural transformations, modifications and forceful religion conversion etc. over last 3 millenniums still many similarities between Śramana culture and Orthodox tradition were found suggesting profound existence of Śramana Culture in present Yemen, Saudi Arab in general and in the Tigary region in particular. Local legend claims the Queen of Sheba lived in this town.

The last visit camp was the archaeological and ethnographic museum in Aksum, near and opposite to the above mentioned Church, constructed in the extended area of Monk's Residency (Monastery) and Oblesiks site.



Figure 21: The Ezana Stone written in Sabaean, Ge'ez and Ancient Greek in 4th century AD when King Ezama was forcefully converted to Christianity.

Shown in Figure 21 is an ancient stele of the Ezana Stone, which is still standing in modern Axum, the centre of the ancient Kingdom of Aksum. This stone monument, that probably dates 4th century AD, documents the forceful conversion of King Ezana to Christianity and later his conquest of various neighboring areas, including Meroë. This ancient Ezana Stone/inscription is a strong evidence of entry of Christianity into the Tigray region in 4th century AD, and earlier to it was a different religion as described above. However, we found many documented inscriptions displayed in the museum as fundamental evidences about the evolution of civilization and religion in the Tigray region in general and in Aksum in particular. The documented inscription shown in Figure 23 unambiguously reveals that the earliest people in the Tigray region may have lived 500,000 years or even much before present (B.P). They used the stone tools to hunt and to gather the wild food. However, according to scientific researches development of talent in human beings started sometimes around 400,000 years B.P (Jain, Rajmal, 2021). Thus we may not expect great civilization or society with religion. It is also noteworthy that the Ethiopia is the cradle of human evolution. Based on archaeological and anthropological evidence, we think that hominids diverged from other primates somewhere between 2.5 and 4 million years ago in eastern and southern Africa. Though there was a degree of diversity among the hominid family, they all shared the trait of bipedalism, or the ability to walk upright on two legs. The aridity hypothesis suggests that early hominids were more suited to dry climates and evolved as the Africa's dry savannah regions expanded. According to the savannah hypothesis, early tree-dwelling hominids may have been pushed out of their homes as environmental changes caused the forest regions to shrink and the size of the savannah expand. These changes, according to the savannah hypothesis, may have caused them to adapt to living on the ground and walking upright instead of climbing (Strayer, Robert W. and Eric W. Nelson, Ways of the World: a Global History, 2016; Jain, Rajmal, 2021).

The inscriptions displayed in the Archaeological and Ethinographic Museum of Aksum (cf. Figure 22) explicitly endorse the human evolution before 500000 BCE in the Aksum area and later at about 1 milleneum BCE human settlements in the Tigray region when perhaps the philosophy started. The inscription also evidences that the Aksumite empire expanded and became welathy through the buisnessmen. The trade was in the Nile valley as well as through the Adulis port - up and down the Red Sea. They traded as far as to India and Sri Lanka where the Śramana Culture was already existing.



Figure 22: The inscribed document displayed in the Archaeological and Ethinographic Museum of Aksum. The script on the left panel may be noted which is a strong evidence about human evolution era and later at about 1 milleneum BCE human settlements in the Tigray region when perhaps the philosophy started. The inscription on the right panel is an evidence of how the Aksumite empire expanded and became welathy through the buisnessmen. The trade was in the Nile valley as well as through the Adulis port – up and down the Red Sea. They traded as far as to India and Sri Lanka where the Śramana Culture was existing.

5. Conclusion:

In the current investigation we presented the exploratory study of the Tigray region in Ethiopia. The Indian scholars team visited Ethiopia to attend the international conference held in the Mekelle University and also visited Almagah, Yeha and Aksum sites to explore the Śramana culture in the Tigray region. With this aim we observed the artifacts, analysed the iconography details, and archaeological, anthropological and historical evidencs. The study unambiguously reveals that almost one milleneum BCE the Tigray region was largely dominated by the community of Śramana culture, and the ruling kings of the empire were also from this community (priest-king). This may be further endorsed from the inscription written on the stele/flagstone in Sabaean Ge'ez, language. We showed that the ancient South Semitic language of the East African came from the present Yemen and Saudi Arabia, earlier Sabaean region. We found many evidences to prove that the Tigray region was thickly populated and under dominance of Śramana culture viz. the artifacts and archaeological evidences found at the Great Moon temple and the Almagah temple, the monastery (Sant Bhavan) and the inscriptions found in the Aksum etc. The ethics and practices followed by Orthodox Christians as well as the discussions held with priests regarding this community further endorsed that

Sabaean culture was either Śramana culture or it was highly influenced by the presence of Śramana community in the Tigray region. Shown in figure 23 is Late Shri Nirmal Kumar Jain Sethi, former president of Shri Bharatvarshiya Digamber Jain Mahasabha, New Delhi, visiting the stele in the Ethnological and Archaeological museum of Addis Ababa University. The inscription on the stele/ flagstone is in Sabaean Ge'ez language, which is an ancient South Semitic language of the East African branch and came from the present Yemen and Saudi Arabia. The open book kept on the wooden head may be noted, which is perhaps written in the Sabaean script. Although we could not derive the exact translation of the script written on the flagstone but the process of understanding and learning the script is in well progress. However, it is very important to mention that the Jerusalem, the oldest city of the world, was the headquarter or the central place of Śramana culture, and we showed in this study that the Ten Commandments, also known as the Decalogue, are a set of philosophical principles relating to ethics and worship that played a fundamental role in the prehistoric or ancient religion of few thousands of years BCE.



Figure 23: Late Shri Nirmal Kumar Jain Sethi, former president of Shri Bharatvarshiya Digamber Jain Mahasabha, New Delhi, visiting the stele in the Ethnological and Archaeological museum of Addis Ababa University. The inscription on the stele/ flagstone is in Sabaean Ge'ez, language, which is an ancient South Semitic language of the East African branch and came from the present Yemen and Saudi Arabia. The open book kept on the wooden head may be noted, which is perhaps written in the Sabaean script.

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I am honored dedicating this article to Late Sh. Nirmal Kumar Jain Sethi who gave me wonderful opportunities to explore the Jainism outside India. The current article is an outcome of these exploring visits. With his passing away, I am missing his guidance, motivation and support to undertake future explorations of Jainism in the overseas countries. I kneel in his feet and pray for the peace of the eternal soul. I express my sincere thanks and gratitude to all Indian scholars who attended the International conference held in the Mekelle University, Ethiopia during 17-18 May 2017. I am humbled with their kind

support during visit of the sites in the Tigray region described in the current paper. I greatly value the discussions held with them and suggestions provided by them. I am also overwhelmed with support and discussions with Ethiopian scholars during our visit and later until writing of this article.

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I C O N

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Antiquity of Jainism

Prof. (Dr.) Rajmal Jain, FRAS, FGSA, FJAS

Physical Research Laboratory, Dept. of Space, Govt. of India, Ahmedabad, Shree Bharatvarshiya Digamber Jain Mahasabha, New Delhi 110001 Ahimsa Mission Foundation, Ahmedabad, India

Dedicated to

Late Shri Nirmal Kumar Jain Sethi, National President, Shri Bharatvarshiya Digamber Jain Mahasabha, New Delhi 110001, India

Abstract:

We present the study on the "Antiquity of Jainism" in the perspective of prehistory, human evolution, Paleolithic and Neolithic era, and anthropological, philosophical, archaeological and scientific aspects. We found that the Śramana religion exists since the human evolution with talent. It propagated very fast all over the globe, and was being followed and practiced by large section of the global folk. The study further reveals that the Jainism is truly an eternal religion and perhaps, it is the first religion on the Earth because it started with the protection of life in the whole universe. With its fundamental concept "Paraspargraho Jivaanaam" soon it became the religion of the Earth and Cosmic order. The Jainism in the current Awsarpani Kaal was reviewed and presented with six professional techniques by the first Tirthankar Shri Rishabhdev who born around 140000 years before present (B.P). We investigated that he maintained the culture that he received from his previous ten incarnations, the first being Mahabal around 329000 years B.P. We analyzed the very first form of Jainism "Nigantha Tradition", which we also found in South America, and Śramana culture in west Asia and across the Red Sea and concluded that ethics of Jainism were followed and practiced all over the globe during Neolithic era and pre and post Indus Valley civilization. Analysis of Jain Kaal Chakra in view of the historical events took place since the human evolution, including birth of Shri Rama and Shri Krishna, as well as in the context of the Milankovitch cycles of the Earth's climate reveals many interesting features related to the eternity of the Jainism, and the same is presented in this paper.

1. Introduction:

It has been now widely established that Jainism is an eternal religion i.e. Jainism existed from the beginning of humanity and will exist till infinite time (von Glasenapp, Helmuth, 1925). It has also been noted that some scholars as well as religious leaders misleadingly attempt to establish that Jainism is founded recently by 24th Tirthankara Mahāvīra (527-599 BCE) or it is an offshoot of Buddhism or Hinduism. Some suggest that, perhaps, it has been established by Shri Rishabhnatha, the first tirthankara of present

Avasarpanikaal kaal of Kaal Chakra (Jain time cycle) and lived for 8400000 purvas on this planet (Zimmer, 1953). However, according to Beversluis (2000) the Jainism originating on the Indian sub-continent is one of the oldest religions of its homeland and indeed of the world, having pre-historic origins before 3000 BCE and the propagation of Indo-Aryan culture. This is further established with the verse quoted in Rigveda as follows.

ऋषभं मा समानानां सपत्नानां विषासिहम्। हन्तारं शत्रूणां कृधि विराजं गोपतिं गवाम्।।1।(Rigveda 10.166.1)

Other examples of Rishabha appearing in the Vedic literature include verses 6.16.47 of Rigveda, 9.4.14-15 of Atharvaveda, 3.7.5.13 and 4.7.10.1 of Taittiriya Brahmana etc. (Bloomfield, 1906). Certainly, no doubt, the fellow tirthankaras from Ajeetnatha through Parshwanath and Mahāvīra continued the propagation of Jainism, however, adding more features and describing the concepts in greater details of foundations of Jainism. In this way the Jain religion advanced through tirthanakaras over the time and in the space.

Ancient history of India reveals that there were three major religions in India viz. Jainism (Nirgrantha), Buddhism and Brahaminism. Latest research and excavation at Mohenjodaro and Harappa has shown that Jainism existed before five thousands year ago (Jain, Rajmal, 2021). However, the Jain scriptures (Aagams) endorse that the Jainism is eternal. This fact and truth from the canonical texts suggests that the Jain religion goes back to a remote antiquity. The antiquity in question being that of the pre-Aryan, so called Dravidian illuminated by the discovery of a series of great late stone-age cities in Indus valley, dating from third to fourth millennium BCE.

Naturally the followers of every religious faith proclaim their religion as having its source in antiquity and Jains are no exception to this. The traditions and the legendary accounts prove the existence of Jainism as eternal. Jainism is revealed again and again in every cyclic period of the universe by forty-eight Tirthankaras (twenty-four in each half Time cycle). The Jainism divides the whole span of time into two equally spanned halves, Utsarpini and Avasarpini. During Utsarpini, there is a gradual ascendancy in moral and physical state of the universe, while during Avasarpini, the case is just reverse, i.e. the gradual descent of moral and physical state of universe. Each of these two is further subdivided into Six Aras (epoch) as shown in Figure 1 and the period of these Aras in modern units of years is presented in Table I (Jain Rajmal, 2019). The time-cycle is keep going on endlessly and humans attempt to be Tirthankaras (Jina) at regular intervals by practicing the eternal principles of Jainism and attain Omniscience (Kevala jñāna) and preach and expound us the same.

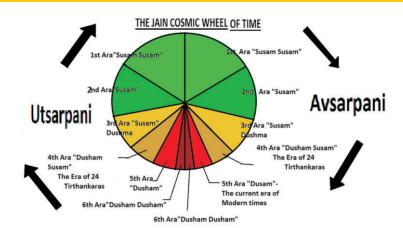


Figure 1: Kaal Chakra (Time Cycle) of the Universe as described in Jainism, which repeats again and again by the birth of forty-eight Tirthankaras (twenty-four in each half Time cycle). The Jainism divides the whole span of time into two equally spanned halves, Utsarpini and Avasarpini. Each of these two is further subdivided into Six Aras (epoch).

Table I

Period of Utsarpani and Awsarpani

(Unit Conversion: 10¹⁰ Sagaropamas = 4.2 years)

Period	Period in Years
400 trillion sāgaropamas	168000 years
300 trillion sāgaropamas	126000 years
200 trillion sāgaropamas	84000 years
100 trillion sāgaropamas	42000 years
50 trillion sāgaropamas	21000 Years
50 trillion sāgaropamas	21000 Years
	400 trillion sāgaropamas 300 trillion sāgaropamas 200 trillion sāgaropamas 100 trillion sāgaropamas 50 trillion sāgaropamas

Period of Utsarpani or Awsarpani is 462000 years, thus total period of one complete Kaal Chakra (Cosmic Cycle) is: 924000 years.

In this context, according to Jainism, time also exists from infinite and will never end. The basic principle of Jainism says that there is "No God" to create any substance. The cosmos and its components are eternal, and any changes or modifications which are visible to us, in fact, are internal of the existing system (Jain, Rajmal and Jain, Anupam, 2017). Therefore, Jainism believes that the universe is comprised of two important components: Jeeva (atma/life) and Ajeeva (pudagal/matter) and exist from the infinite beginning and will continue to endless time. Such principles of Jainism indicate its association with cosmic order and therefore its existence is eternal (Jain, Rajmal, 2019). However, misleadingly many investigators and scholars attempted to probe its originality in terms of physical beginning and reported that it was started by 24th tirthankar Mahāvīra and other tirthankars are mythical (von Glasenapp, 1925). On the contrary, Dr. Sarvepalli Radhakrishnan, the first vice president of India, said that the Jainism was in existence long before the Vedas were composed (Jambuvijaya, Muni, 2002). The last two tirthankaras Parshwanatha and Mahāvīraa (599 - 527 BCE) are considered historical figures (Zimmer, 1953, von Glasenapp, 1925), and the Mahāvīraa was a contemporary of the Buddha (Dundas, 2002). Further, according to the Jain canonical texts, the 22nd Tirthankara Neminatha (Sangave, 2001) lived about 85,000 years ago and was the cousin of Hindu god Krishna (Helen, 2009; Sangave, 2001). However, in this view of debate, it would be adequate to investigate the facts and dating of Shri Rishabhdeva and other tirthankrs (Jain, Rajmal, 2017, 2021).

An impartial probe and investigation of the ancient history of India reveals the fact that Indians followed the trinity of religions which we call Jainism, Buddhism and Brahminism. The Jainism is also called the religion of the Nirgranthas (von Glasenapp, 1925). Latest researches and excavations have brought to light that Jainism has special significance from the view point of antiquity. In the Buddhist scripture Majjima Nikaya, Buddha himself tells us about his ascetic life and its ordinances which are in conformity with the Jain monk's code of conduct. He says,

`Thus far, Sariputta did I go in my penance, I went without clothes, I licked my food from my hands. I took no food that was brought or meant especially for me. I accepted no invitation to a meal. Mrs. Rhys Davis has observed that Buddha found his two teachers Alara and Uddaka at Vaisali and started his religious life as a Jaina. At any rate Gautama gave himself up to a cause of austerities under the influence of his Jain teachers (Buddhism and Vaisali - P. 9; The Public Relations Department Bihar).

Dr. Rajmal Jain (2020) proposed that Jainism existed since the evolution of human beings with talent and in this connection he describes prehistoric facts related to the first tirthankar Shri Rishabhdev considering Jain canonical texts and other scientific discoveries (Jain, 2017, 2019). According to him the epic Aadi Purana originally written by Acharya Jinasena in Sanskrit and then translated in Hindi by Shri Panna Lal Jain (1944) describes in great details the ten preceding descents (दस पूर्व भव) of Shri Rishabhdev. Based on the description about Kaal Chakra and birth details of first tirthankar shri Rishabhdev in Agams as well as in the epic Aadi Purana and comparing them with the Earth's orbital periods known as Milankovitch cycles or Earth's

climate cycles, Dr. Rajmal Jain estimated the period of birth of Shri Rishabhdev and his preceding first descent (incarnation) namely "Mahabal" (Jain, Rajmal, 2020). Accordingly, the first tirthankar Rishabhdev born sometimes at the end phase of 3rd Ara (epoch) of current Awasarpani Kaal and he lived throughout the 4th Ara.

The evidences of existence of Jainism in these primordial forms are found not only in India, Asia but also in the other parts of the world (Gokul Prasad Jain, 1928; J. D. Jain, 2007). Recently, Dr. Shugan C Jain translated the book "Videsho mei Jain Dharm" of Shri Gokul Prasad Jain in English entitled as "Jainism Overseas" in 2017 which was published by Shri Bharatvarshiya Digamber Jain Mahasabha, New Delhi. The book describes brief details of historical, archaeological, anthropological, religious and philosophical evidences, artifacts, inscription, remnants' etc. of Jainism that exist in the various countries of the world. The book explicitly describes "Jainism in Abyssinia and Ethiopia" in Chapter 24. The description cites that the Greek historian Herodotus has mentioned the existence of Jain followers, known as Gymnosophists (the nude Jain recluses), in Abyssinia and Ethiopia. From the history of those times, in those days, thousands of Jain saints were residing here and there, all over the place, in Western Asia, Greece, Egypt and forest and hills of Ethiopia. According to Van Cromer, a famed German Scholar, the prevalent Samāniyas in middle-east Asia were a community of Jain Śramanas. The famous historian G. F. Moore (1913, 1919) has written that before the beginning of the Christian era Jain monks in thousands were roaming about far and in area of central Asia, Iraq, Siam and Palestine etc. and preaching their religion of Ahi' sā (Non-violence). These innumerable Jain monks were renowned for their renunciation and knowledge and were residing in welldesigned caves all over the Western Asia, Greece, Egypt and Ethiopia. Major General J.

G. R. Forlong (1897) described in his research work that Jainism was very popular in Oxiana, Samarkand, Caspia, and Balkha city. On the other hand, the Jews were extremely influenced by Jainism and the influenced folk had accordingly formed a community of their own known as Esminee.

Further, some scholars feel that the origin of Jainism is shrouded in considerable obscurity (Kailasha Chandra Jain, Jaipur). The available evidence does not decide the questions that are scanty, dubious, and capable of different interpretations. Scholars have therefore come to widely divergent conclusions. For example, Mrs. Stevenson was of the opinion ("Translations of Portions of the Rig-Veda") that Jainism originated as a protest against the sacrifice and casteism of the Brahmanism in the 8th century BCE (https://sites.fas.harvard.edu/~pluralsm/affiliates/jainism/article/antiquity.ht m). According to Jacobi Herman (1908-1927), there are traces of Jainism even in the Vedic period. Zimmer (1953) observed the existence of the Śramana culture before the Aryans in India suggesting existence of Jainism before arrival of Aryans. Therefore, argument of Mrs. Stevenson that Jainism originated as a protest against the sacrifice and casteism of the Brahmanism in the eighth century BCE (Kanti Chandra Jain, Jainism Resource Center -Articles, harvard.edu) does not appear to be relaible. Glasenapp (1925) presented a misleading and unethical proposal where he suggested that Jainism's origin can be traced to the 23rd Tirthankara Parshvanatha (8th–7th century BCE) and the first twenty-two Tirthankaras as legendary mythical figures (Dundas, 2002; Zimmer, 1953 and Sangave,, 2001). However, Jains consider their religion eternal (Zimmer, 1953, Jain, Rajmal, 2017, 2020). According to Hermann Jacobi (On the Antiquity of Vedic Culture (1908), there are traces of Jainism even in the Vedic period. Dr. Heinrich Zimmer (Philosophy of India, 1952) and Forlong observed that there was existence of the Śramana culture before the Aryans in India. Dr. Zimmer calls it by the name of the Dravidan religion while Forlong considers it to be different from the religion of the Dravidans.

The divergence of views among the Scholars about the antiquity of Jainism is thus almost bewildering. The question has therefore to be examined and considered carefully, critically and exhaustively in order to arrive at some conclusion. Therefore, in the current paper we present investigation considering religious, historical, philosophical, anthropological, archaeological and scientific aspects, and evidences from artifacts, inscription, remnants' etc. of Jainism that exist in India as well as in the other countries of the world.

2. Jainism in the historical perspectives:

Jainism is a religion of nature or in absolute sense it is a science of earth and cosmos order (Jain, Rajmal, 2017, 2019). Therefore Jainism is an eternal religion. It is like the universe, which has neither been created, nor it will be destroyed i. e universe/ nature has no beginning and no ending. In this context, according to Jainism, time also exists from infinite and will never end. The basic principle of Jainism says that there is "No God" to create any substance. The cosmos and its components are eternal, and any changes or modifications which are visible to us, in fact, are internal of the existing system. Therefore Jainism believes that the two important components of the universe: Jeeva (atma/ life) and Ajeeva (pudagal/ matter) exist from the infinite and will continue to endless time. Such principles of Jainism indicate its association with cosmic order and therefore its existence is considered to be eternal. However, misleadingly many investigators and scholars attempted to probe its originality in terms of physical beginning and reported that it was started by 24th tirthankar Mahāvīra and other tirthankars are mythical (von Glasenapp, 1925). Based on the artifacts found in the Indus Valley civilization some scholars suggested as a link to ancient Jain culture, but according to scholars like Zimmer (1953); Sangave (2001) and Bilimoria (2007), it is highly speculative and a subjective interpretation. This theory has not been accepted by most scholars because very little is known about the Indus Valley iconography and script (Masih, 2000; Guseva, 2000).

2.1 Pre-History:

Dr. Rajmal Jain (2020) proposed that Jainism existed since the evolution of human beings with talent and in this connection he describes prehistoric facts related to the first tirthankar Shri Rishabhdev considering Jain canonical texts and other scientific discoveries (cf. section 6). According to him the epic Aadi Purana originally written by Acharya Jinasena in Sanskrit

and then translated in Hindi by Shri Panna Lal Jain (1944) describes in great details the ten preceding descents/incarnations (दस पूर्व भव) of Shri Rishabhdev. Dr. Rajmal Jain also estimated the period of birth of Shri Rishabhdev and his preceding first descent namely "Mahabal" (cf. section 6).

Acharya Jinasena illustrated very magnificently and meticulously these ten preceding descents of Rishabhdeva in the form of a verse and that worshiped by Soudharm-Indra as follows.

महाबल ! नमस्तुभ्यं, लिलतांगाय ते नमः। श्रीमते वंकाजंघाय, धर्मतीर्थप्रवर्तिने।।।। नमः स्तादर्य ते शुद्धि-श्रिते श्रीधर ! ते नमः। नमः सुविधये तुभ्य-मच्युतेन्द्र ! नमोऽस्तु ते।।2।। वंकास्तंभस्थिरांगाय, नमस्ते वंकानाभये। सर्वार्थिसिद्धिनाथाय, सर्वार्थां सिद्धिमीयुषे।।3।। दशावतारचरम-परमौदारिकत्विषे। सूनवे नाभिराजस्य, नमोऽस्तु परमेष्ठिने।।4।।

The names of Rishabhdeva during his earlier descents in serial order are as follows:

- 1. महाबल (Mahabal), 2. लिलतांग देव (Lalitang Dev),
- 3. राजा वंकाजंघ (Raja Vadkkajungh),
- 4. भोगभूमिज आर्य (Bhogbhimeej Arya),
- 5. श्रीधरदेव (Shridhar Dev), 6. राजा सुविधि (Raja Suvidhi),
- 7. अच्युतेन्द्र (Achutendra),
- 8. चक्रवर्ती वंकानाभि (Chakravarti Vadkkanabhi),
- 9. सर्वार्थसिद्धि के अहमिंद्र (Ahmindra of Sarvarthsidhhi),
- 10. भगवान ऋषभदेव (Bhagwan Rishabhdev)

The first tirthankar Rishabhdev born sometimes at the end phase of the 3rd Ara (eon/epoch) of current Awasarpani Kaal and he lived throughout the 4th Ara. Further, canonical texts describe that in view of his extraordinarily personality of high sensation, compassion and perception characteristics he developed asceticism noticing death of Neelanjana, a dancer brought by Soudharma-Indra, while dancing in the courtyard of his palace during a celebration. In fact nobody else noticed because in a very short moment Soudhrama-Indra replaced by a new Neelanjana but that tragic scene of death could not be hidden from the eyes of Sh. Rishabhdev and he left everything of the palace. He immediately decided to become a monk and proceed for renunciations. In due course of time of monk and renunciations he achieved keval jnana (Omni- knowledge), and later he disseminated the knowledge to many people visiting almost all continents on the earth for a period of about one lakh years (Acharya M. S. Hemchandracharya, 1100 AD). Evidences of his visit and dissemination of Śramana culture as well as establishing Nigantha tradition are now being found as existence of Jainism in different countries of the world (Jain Gokul Prasad, 1928; Jain Jineshwar Das, 2016). However, based on recent investigations, lectures and articles Dr. Rajmal Jain (2017, 2019, 2020) claims antiquity of Jainism to be since the evolution of humanity on the planet. According to him Jainism is not a religion rather it is science of Nature and environment. The Nirgrantha or nigantha (nudeness) was, therefore, adopted to be in tune with the nature. He described, in this context, that Jainism appears to be eternal since the evolution of human beings with intelligence (sometimes between 50000 and 400000 years BCE).

2.2 History of Śramana culture:

Many scholars and researchers wrote that Jainism was in the form of Śramana (१११९११) tradition i.e., to exert or do meditation for some higher religious purpose (Dhirasekera, Jotiya, 2007; Shults, Brett, 2016) and therefore one performs acts of austerity, ascetic (Monier Monier- Williams, 1899). The Śramana tradition includes Jainism (Zimmer, 1952). Buddhism (Svarghese, Alexander P., 2008) and others such as the Ājīvikas, Ajñanas and Cārvākas (AL Basham, 1951; James G. Lochtefeld, 2002). There are some misconceptions that the śramana movements arose in the same circles of mendicants from greater Magadha that led to the development of yogic practices (Samuel, 2008), as well as the popular concepts in all major Indian religions such as samsāra (the cycle of birth and death) and moksha (liberation from that cycle) as discussed by Flood, Gavin, Olivelle, Patrick (2003), while the fact is that the Śramana culture existed much earlier, even during the prehistory era. The Śramanic traditions have a diverse range of beliefs, ranging from accepting or denying the concept of soul, fatalism to free will, idealization of extreme asceticism to that of family life, wearing dress to complete nudity in daily social life, strict ahimsa (non-violence) and vegetarianism to permissibility of violence and meat-eating (Padmanabh, S. Jaini (2000, 2001).

Historical records show that Śramanic tradition in general has been present uninterruptedly on the planet for over a few thousands of years and Jainism in particular on the Indian subcontinent for more than 2500 years. Jains themselves, however, understand their tradition to be beginningless and eternal, recognizing twenty-four Jinas who, in our part of the world, appear in certain epochs of time (cf. Figure 1) and promulgate the same fundamental doctrine (Jain, Rajmal, 2019, 2021). Scholars consider the last two of these teachers to be historical persons as evidenced by textual records. The twenty-fourth and last teacher of our current era, Mahāvīra ("Great Hero"), lived in the 6th century BCE, and the twenty-third teacher, Pārśvanātha, lived approximately 273 years before him. Prior to their liberation, both Jinas oversaw a fourfold community of monks and nuns, as well as laymen and laywomen householders (Donaldson and Bajzelj, 2021).

Mahāvīra was an elder contemporary of the Buddha, and while we do not know if they ever actually met, a Buddhist canonical text, Sāmaññaphalasutta, describes Mahāvīra as one of the śramana leaders. This reveals that at least the Buddha knew of Mahāvīra (Jacobi, 1879; Jaini, 2001). Śramana ("striver") was a term used for the Buddha, Mahāvīra, and other wandering non- Vedic solitaries in the Ganges plain to differentiate them from Vedic

priests and renouncers (brāhmana) (Dundas, 2002). Śramanas rejected the authority of the Vedas and other sacred texts of the brāhmanas, their gods, as well as the efficacy of Vedic rituals (Jaini, 1979, 2001).

The "Jain" means one who follows a Jina ("Conqueror" or "Victor"). Jinas master the disciplinary practices needed to attain liberation from the cycle of rebirths, known as samsāra. They are also called Tīrthankaras or Fordmakers because they create the ford, or tīrtha, for others to follow across the river of samsāra.

3. Jainism in the Philosophical Perspectives:

3.1 Śramana (श्रमण) Philosophy:

Indian philosophy is a conflux of Śramanic (self-reliant) traditions, Bhakti traditions with idol worship and Vedic ritualistic nature worship. These co-exist and influence each other (Shults, Brett, 2016). However, Jain Śramanas had a view of Samsara as full of suffering (or dukkha) and, therefore, they practiced Ahimsa and rigorous asceticism. They believed in Karma and Moksa and viewed re-birth as undesirable.

On the contrary, the Vedic tradition believes in the efficacy of rituals and sacrifices, performed by a privileged group of people, who could improve their life by pleasing certain Gods. The Śramanaic ideal of mendicancy and renunciation, that the worldly life is full of suffering and that emancipation requires abandoning desires and withdrawal into a solitary contemplative life, is in stark contrast with the Brahminical ideal of an active and ritually punctuated life. Traditional Vedic belief holds that a man is born with an obligation to study the Vedas, to procreate and rear male offspring and to perform sacrifices. Only in later life may he meditate on the mysteries of life. The idea of devoting one's whole life to mendicancy seems to disparage the whole process of Vedic social life and obligations (Olivelle Patrick, 1993). Because the Śramanas rejected the Vedas, the Vedics labelled their philosophy as "nastika darsana" (heterodox philosophy).

Beliefs and concepts of Śramana philosophies:

- a) Denial of creator and omnipotent Gods.
- b) Rejection of the Vedas as revealed in texts.
- c) Affirmation of Karma and rebirth, Samsara and transmigration of Soul, later these practices were accepted into Vedism.
- Affirmation of the attainment of Moksa through Ahimsa, renunciation and austerities.
- e) Denial of the efficacy of sacrifices and rituals for purification.
- f) Rejection of the caste system.

Ultimately, the Śramana philosophical concepts like ahimsa, karma, reincarnation, renunciation, samsara and moksha were accepted and incorporated by the Brahmins in their beliefs and practices, e.g. by abandoning the sacrifice of animals (Olivelle, Patrick, 1993). According to Gavin Flood, concepts like karmas and reincarnation entered mainstream brahaminical

thought from the Śramana or the renouncing traditions (Jaini, Padmanabh S., 2001). According to D. R. Bhandarkar, the Ahimsa dharma of the Śramanas made an impression on the followers of Brahamanism and their law books and practices (Ghurye, G. S., 1952).

Śramana in Western literature:

Clement of Alexandria (150-211 AD) makes several mentions of the Śramanas, both in the context of the Bactrians and the Indians: "Thus philosophy, a thing of the highest utility, flourished in antiquity among the barbarians, shedding its light over the nations". And afterwards it came to Greece. First in its ranks were the prophets of the Egyptians; and the Chaldeans among the Assyrians; and the Druids among the Gauls; and the Samanaeans among the Bactrians ("Σαμαναίοι Βάκτρων"); and the philosophers of the Celts; and the Magi of the Persians, who foretold the Saviour's birth, and came into the land of Judaea guided by a star. The Indian gymnosophists are also in the number, and the other barbarian philosophers. And of these there are two classes, some of them called Sarmanae ("Σαρμάναι"), and Brahmanae ("Βραχμαναι") (Max Muller, 1884).

To Clement of Alexandria, "Bactrians" apparently means "Oriental Greek", as in a passage of the Stromata: It was after many successive periods of years that men worshipped images of human shape, this practice being introduced by Artaxerxes, the son of Darius, and father of Ochus, who first set up the image of Aphrodité Anaitis at Babylon and Susa; and Ecbatana set the example of worshipping it to the Persians; the Bactrians, to Damascus and Sardis (Gavin D. Flood,1996). We found direct evidence from Porphyry (233-305 AD) who extensively described the habits of the Śramanas (whom he calls Samanaeans) in his Book IV "On Abstinence from Animal Food" (James G. Lochtefeld, 2002). He said the information was obtained from "the Babylonian Bardesanes, who lived in the times of our fathers, and was familiar with those Indians who, together with Damadamis, were sent to Caesar".

For the polity of the Indians being distributed into many parts, there was one tribe among them of men divinely wise, whom the Greeks were accustomed to call Gymnosophists. But of these there were two sects, over one

of which the Brahmins preside, but over the other the Samanaeans. The race of the Brahmins, however, received divine wisdom of this kind by succession, in the same manner as the priesthood. But the Samanaeans are elected, and consist of those who wish to possess divine knowledge (A joint report from University of Oxford; Institute of Social Anthropology; Institute of Economic Growth (India); Research Centre on Social and Economic Development in Asia, 1981).

In a recent study conducted by Dr. Rajmal Jain (2020) on the exploration of Śramana tradition in west Asia and Africa, he found that the earlier Sabaean tradition in present Saudi Arabia, Yemen Egypt and Greece was originally the Śramana tradition, which propagated from India as well as from current Israel and Philistines countries where it was in dominance. Thus we may conclude that the Śramana culture was well existing in various parts of the world, however, with different names and some modifications suiting to local folk and place. However, currently following two main schools of Śramana Philosophy that has continued since ancient times in India.

3.2 Jain Philosophy:

Jainism derives its philosophy from the teachings and lives of the twenty-four Tirthankaras (ford-makers or enlightened teachers), of whom Mahāvīraa was the last. Jain Acharyas – Bhadrabahu, Umasvati (Umasvami), Jinasena, Kundakunda, Haribhadra, Yaśovijaya Gani and others further developed and reorganized Jain philosophy in its present form. The distinguishing features of Jain philosophy are its belief in the independent existence of soul and matter, predominance of karma, the denial of a creative and omnipotent God, belief in an eternal and uncreated universe, a strong emphasis on non-violence, an accent on relativity and multiple facets of truth, and morality and ethics based on liberation of the soul. The Jain philosophy of Anekantavada and Syadvada, which posits that the truth or reality is perceived differently from different points of view, and that no single point of view is the complete truth, have made very important contributions to ancient Indian philosophy, especially in the areas of skepticism and relativity (Heinrich Zimmer, 1952). Thus the Jain philosophy is derived from the long enduring and historically ancient Śramana philosophy.

3.3 Buddhist Philosophy:

Buddhist philosophy is a system of beliefs based on the teachings of Siddhartha Gautama, a Nepali prince later known as the Buddha. Buddhism is a non-theistic philosophy, one of whose tenets are not especially concerned with the existence or nonexistence of a God or gods and which denies the existence of a creator god. The question of God is largely irrelevant in Theravada Buddhism, though most sects of Mahayana Buddhism, notably Tibetan Buddhism and most of East Asian Buddhism (in the Shurangama Mantra and Great Compassion Mantra) do regularly practice with a number of gods (as Dharmapalas and Wrathful Deities, Four Heavenly Kings, and Five Wisdom Kings) drawn from both the Mahayana Sutras and Buddhist Tantras sometimes combined with local indigenous belief systems. The Buddha

criticized all concepts of metaphysical being and non-being. A major distinguishing feature of its philosophy is the rejection (anatman) of a permanent, self-existent soul (atman), which is in contrast to Jain philosophy.

On entering the order:

The Śramana (Samanaeans) are elected. Anyone who is desirous of being enrolled in their order, he proceeds to the rulers of the city. However, he abandons the city or village that he inhabited, and the wealth and all the other property that he possessed. Having likewise the superfluities of his body cut off, he receives a garment, and departs to the Samanaeans, but does not return either to his wife or children, if he happens to have any, nor does he pay any attention to them, or think that they at all pertain to him. On the contrary, the King takes care of his children indeed, the king provides what is necessary for them, and the relatives provide for the wife. So such is the life of the Samanaeans. But they live out of the city, and spend the whole day in conversation pertaining to divinity. They also had houses and temples built by the king" (G. S. Ghurye, 1952). However, in the current era no one needs to take permission or approval from the government but approval comes from the Acharva, the leader of the Monk's sangha, who testifies the eligibility of the candidate to adopt the Sraman culture. Further, before departure from the home he himself has to make sufficient arrangement for his wife and children for their survival.

4. Jainism in the perspectives of other Religions (Anthropology): Hinduism:

The study of various scriptures and mythological texts of Vaishnava religion suggests the antiquity of Jainism written in Shivpurana, which reveals in the following verse.

अष्ट षष्ठिसु तीर्थेषु यात्रायां यत्फलं भवेत्। श्री आदिनाथ देवस्य स्मरणेनापि तद्धपेत।।

Meaning of this verse: The fruit we obtain by visiting the 68 pilgrimages is equivalent to that much fruit gained merely by remembering Shri Adinath.

Similarly, Hinduism refers 8 incarnation of Rishabha (Rishabhavtara) out of 22 incarnation of Vishnu, which is significant inclusion of Jainism in Hindu religion and suggests that Jainism is much older than the Hinduism.

Further, it has also been told in Mahabharat:

युगेयुगे महापुण्यं दृश्यते द्वारिका पुरी। अवतीर्णो हरियंत्र प्रभासशशि भूषणं। रेवताद्रौ जिनो नेमियुगादि विमलाचले। ऋषीणामाश्रमादेव मुक्ति मार्गस्य कारणम्।

This means: Dwarkapuri is a great zone where Hari (Shri Krishna) was incarnated, which is made splendid like the moon in the radiant area, and Neminath on the Girnar Mountain and Adinath on Kailash "(Astapada) had existed. This region is being a hermitage of Risiees (great ascetics) and is the

instrumental for salvation path.

It has been further said in Mahabharat:

आरोहस्व रथं पार्थ गांडीवं करे कुरु। निर्जिता मेदिनी मन्ये निर्गुथा यदि सन्मुखे।

O Arjuna! ride on the chariot and take Gandeeva-bow in hand. I know, in front of you Digamber Muni is coming, your victory is certain.

In the epic Rigveda it has been written:

में त्रैलोक्य प्रतिष्ठितानां चतुर्विशति तीर्थंकराणाम् । ऋषभादिवर्द्धमानान्तानां सिद्धानां शरणं प्रपद्ये।।

This means: There are twenty four Tirthankara renowned in all the three worlds beginning from Rishabhadeva up to Vardhman Swami. I take refuge/patronage of those liberated souls.

It has also been said in Rigveda:

मैं नग्नं सुधीरं दिग्वाससं ब्रह्मगर्भ सनातनं उपैमि वीरं। पुरुषमहँतमादित्य वर्णं तसमः पुरस्तात् स्वाहा।।

That means: I further take refuge of nude, resolute, brave, naked, eternal Omniscient like Brahama, the sun-complexioned Supreme Being.

It has been said in Yajurveda:

ॐ नमोऽर्हन्तो ऋषभो।

I pay my obeisance to Rishabhdeva named omniscient.

It has been written in Dakshina Murti Sahasranama treatise:

शिव उवाच। जैन मार्गरतो जैनो जितक्रोधो जितामय:।।

Shivji told - Who takes pleasure in the Jain path such follower of Jainism overcomes anger as well as diseases.

It has been further mentioned in Nag Purana:

दशभिजितैर्विप्रै: यत्फलं जायते कृते। मुनेरर्हत्सुभक्तस्य तत्फलं जायते कलौ।

Whatever fruit is gained by feeding ten Brahmins in 'Satayuga', the same fruit is gained by giving food to a Arihant devotee (nude) Muni in this Kaliyuga.

It should also be noted that there is narration of Rishabhdeva in chapter 2 to 6 of the fifth canto of Bhagwat. The gist of which is that out of fourteen Manus Rishabhdeva took birth as the grandson of first Manu Swambhoo and the son of Nabhi who was the first preacher of Jainism. However, it does not

match with the text described by Acharya Jinasena in Aadi Purana. On the other hand, ecological prayers of Rishabhdeva have been described in 141 precepts of Rigveda. There are many such examples in several Hindu texts.

4.2 Buddhism:

It is written in Buddha Mahavagga - A great number of nude saints (Digamber Sadhoo) were delivering religious sermons on each road of Vaishali. It is written in Aguttar Nikaya - the son of Nath (Tirthankara Mahāvīra) was Omni-seer, having infinite knowledge and fully alert at every moment and was placed in the form of Omniscient. Tirthankara Rishabhdeva has been told as an unattached and passionless Tirthankar and a real spiritual authority in Manjoo Shrikalpa text. In Niyayabindu, Teerthanaka Mahāvīra has been described as Omniscient,

i.e. Tirthankara having omniscience, a real spiritual authority. It is also written in Majjhimnikaya that Tirthankara Mahāvīra was an Omniscient, Omni-seer and a scholar of entire knowledge and philosophy.

Jain Pali canonical literature too mentions names of Pūrana Kassapa, Makkhali Gosāla and Sañjaya Belatthaputta and the Nigantha Nātaputta who were teachers as well as well-known and famous founders of schools, and popularly regarded as saints (Gavin D. Flood, 1996). Nigantha Nātaputta (Pāli; Skt.: Nirgrantha Jñātaputra) refers to Mahāvīra (D. R. Bhandarkar, 1989). The Pali Canon is the only source for Ajita Kesakambalī and Pakudha Kaccāyana (McEvilley, Thomas,2002). During the life of Buddha and Mahāvīraa who were leaders of their śramana orders. Nigantha Nātaputta refers to Mahāvīra, and Jains were same as the Niganthas mentioned in the Buddhist texts, and the Jains were a well-established sect when Buddha began preaching.

Further, the archaeological evidences indicate that Jain religion is older than Buddhism. Mohan-Jo-daro and Harappan excavations are its example (cf. section 5). Also the mythological evidences also indicate that Gautam Buddha first adopted Jainism and became Jain monk but due to hard life and practices of Jain monk he later adopted middle way (मध्यम मार्ग) and established Buddha religion. In fact, Gautama Buddha regarded extreme austerities and selfmortification as useless or unnecessary in attaining enlightenment and recommending, instead, a "middle way" between the extremes of hedonism and self-mortification. This philosophy of Gautam was opposed by Devadatta, a cousin of Gautama, caused a split in the Buddhist Sangha by demanding more rigorous practices. On the other hand, followers of Mahāvīra continued to practice fasting and other austerities. Pande (1957) states, without identifying supporting evidence, that "Jainas appear to have belonged to the non-Vedic Munis and Śramanas who may have been ultimately connected with pre-Vedic civilization". The śramana system is believed by a majority of Jain scholars to have been of independent origin and not a protest movement of any kind, and was pre-Buddhist and pre-Vedic (Sonali Bhatt Marwaha, 2006).

Some scholars posit that the Indus Valley Civilization symbols may be related to later Jain statues, and the bull icon may have a connection to Rishabhanatha (Purusottama Bilimoria, Joseph Prabhu, Renuka M. Sharma, 2007); Institute of Indic Studies, Kurukshetra University (1982); Robert P. Scharlemann (1985).

We would like to mention that all other non-Vedic or Abrahamic religions evolved in present era i.e. in the last 2000 years.

5. Jainism in the perspectives of Archaeological Evidences:

The enriched heritage and culture of Jainism has also been studied by archaeologists of India and other countries. In this context, the antiquity of Jainism has been proven by the Archaeology Survey of India formed during British Raj.

5.1 Indus Valley Civilization:

The Indus Valley Civilisation (IVC) was a Bronze Age civilization in the northwestern regions of South Asia, lasting from 3300 BCE to 1300 BCE, and in its mature form from 2600 BCE to 1900 BCE (Wright, 2010). Together with ancient Egypt and Mesopotamia, it was one of three early civilizations of the Near East and South Asia, and of the three, the most widespread, its sites spanning an area stretching from today's north-east Afghanistan, through much of Pakistan, and into western and north-western India (Dyson, 2018). It flourished in the basins of the Indus River, which flows through the length of Pakistan, and along a system of perennial, the vicinity of the seasonal Ghaggar Hakra river in north-west India and eastern Pakistan (Dyson, 2018).

The civilization's cities were noted for their urban planning, baked brick houses, elaborate drainage systems, water supply systems, clusters of large non-residential buildings, and new techniques in handicraft (carnelian products, seal carving) and metallurgy applications of copper, bronze, lead, and tin in various household items (Wright, 2009). This suggests that talented, religious and commercial knowledge based society might have been existing in large number, which signals prevailing of the Jain community.

The large cities of Mohenjo-daro and Harappa very likely grew to contain between 30,000 and 60,000 individuals, and the civilization itself during its florescence may have contained between one and five million individuals (McIntosh, Jane, 2008). However, gradual drying of the region's soil during the 3rd millennium BCE may have been the initial spur for the urbanization associated with the civilization, but eventually weaker monsoons and reduced water supply caused the civilization's demise, and caused its population to scatter eastward and southward (Dyson, 2018). The Indus civilization is also known as the Harappan Civilization, after its type site, Harappa, the first of its sites were excavated early in the 20th century in what was then the Punjab province of British India and now is Pakistan (Habib, Irfan, 2015). The discovery of Harappa and soon afterwards Mohenjo-daro was the culmination of work beginning in 1861 with the founding of the

Archaeological Survey of India during the British Raj (Wright, 2010). There were, however, earlier and later cultures often called Early Harappan and Late Harappan in the same area; for this reason, the Harappan civilization is sometimes called the Mature Harappan to distinguish it from these other cultures. The mature Harappan society and well developed technology for house planning and construction as well as the techniques of use of metal applications etc. reveal that Jain societies were also customary in the Indus Valley Civilization (IVC). This may be further endorsed from the currently existence of large number of Jain temples in Afghanistan, Pakistan and in the Punjab, Haryana of India where the archaeological evidences of IVC have been found.

Signatures of existence of Jainism during the Neolithic era were demonstrated by Dr. Rajmal Jain (2012) considering prevailing of Śramana culture around 10000 BCE. The pre- Harappan civilization observed in Mehrgarh was also a Neolithic (7000 BCE to 2500 BCE) mountain site in the Baluchistan province of Pakistan (Hirst, K. Kris, 2005), which gave new insights on the emergence of the Indus Valley Civilization (Chandler, Graham, 1999). Mehrgarh is one of the earliest sites with evidence of farming and herding in South Asia. Mehrgarh was influenced by the Near Eastern Neolithic, with similarities between "domesticated wheat varieties, early phases of farming, pottery, other archaeological artefacts, some domesticated plants and herd animals (Singh, Sakshi; et al., 2016). Jean-Francois Jarrige argues for an independent origin of Mehrgarh. Jarrige notes "the assumption that farming economy was introduced full-fledged from Near-East to South Asia, and the similarities between Neolithic sites from eastern Mesopotamia and the western Indus valley, which are evidence of a "cultural continuum" between those sites. But given the originality of Mehrgarh, Jarrige concludes that Mehrgarh has an earlier local background," and is not a "backwater of the Neolithic culture of the Near East (Jarrige, Jean-Francois, 2008), which suggests existence of a community with good economic, religious and civilized sense. This community is likely to be from Śramana culture and accordingly the renowned Archaeologist Dr. Rakhaldas Banarjee has investigated Indus valley civilization. He found something has been written on the seal No. 449 excavated from IVC. Prof. Pran Nath Vidyalankar has read it as 'Jineswar' (Jin-e-e-israh - जिन-इ-इ-इसरः). According to the statement of the Archaeologist Rai Bahadur Chandra (1920) one idol has been found in the seals of the Indus valley in which disposition of renunciation and aversion from worldly enjoyments identical with the idol of Lord (Tirthankara) Rishabhdeva in standing posture of Mathura are seen. Moreover, the idol which is engraved on seal No. 2 F.G.H.., the disposition of renunciation is precisely clear on it and below the figure of the idol there is also the figure of the bull which is a symbol of Tirthankara Rishabhdeva. On the basis of all these facts, many learned scholars have regarded the Jainism as of the period much before the Indus valley civilization.

On the other hand, the main part of the nude human body found in Harappa also indicates the existence of Jain Tirthankaras or monks/ sadhus in

Indus valley civilization. Dr. T. N. Ramchandran, Director General of the central Archaeological department has written after profound study: 'The engraved idol in meditative relaxation posture found in the investigation of Harappa, is fully a Digamber Jain idol'. The 'Kankali Teela' of Mathura is most important from the view-point of Jain Archaeology. In its excavation, apart from an extremely ancient deities- created mound (a dome-shaped monuments containing relics), whose creation-period is not known, one hundred ten rock inscriptions and hundreds of idols have been found which range from second century B.C. to 12th century. According to Archaeologists the above mentioned mound was rebuilt in eighth century B.C. According to Dr. Vincent A. Smith it is proved from the investigation related to Mathura that the existence of Jain Tirthankaras was there much earlier to Christian era. Recognition of Tirthankara Rishabhdeva and, in fact, all 24 Tirthankaras was in vogue from ancient time. (Jain Siddhant Shikshan: Muni Pramansagar ji). It is further proven from the rock inscription of Hathi gufa that got carved under the guidance of Emperor Kharvel that the installation and worshipping of the idol of Rishabhdeva is in vogue from ancient time. It is widely known that logo/badge of the Jain tirthankaras are related to the Earth and cosmic order suggesting the Jainism is a religion of Nature and Environment. The logo/ symbol of the 16 tirthankars are of animals as shown in Figure 2, and for other 8 tirthankars it is related to either biosphere or cosmos, and it is very interesting to note that the seals excavated from the Indus Valley Civilization also reveal the similar symbols. For example, as shown in Figure 3, many seals reveal engraved images of animals' viz. bull, horse, elephant, goat, unicorn etc., which are in common to symbols of Jain tirthankars. On the other hand, the Swastika seals of Indus Valley Civilization, safely kept in British Museum, reveal evidence of existence of Śramana tradition/ Jainism before Indus civilization as the swastika is a symbol/logo of 7th Jain tirthankar Suparshwanath. In fact, swastika is a sacred icon of all Śramana traditions in India in general and of Jainism in particular.



Figure 2: The logo/symbols of 24 Jain Tirthankars. Name of each tirthankar is written at the top of the symbol. It may be noted that 16 symbols are of animals for which the tirthankars struggled to stop their sacrificial. The other 8 symbols

are related to plant biosphere, cosmopshere and social environment viz. lotus flowers, Kalp tree; Swastika, Moon, and Kalash, shankh and Vajra gada.



Figure 3a: Stamp seals of the Indus Valley Civilization with Indus script; probably made of steatite; saved in the British Museum. Note the structure of animals engraved on the seals, such as bull, horse, elephant, goat etc., that resembling with logos/symbols of many Jain tirthankars (cf. Figure 2).



Figure 3b: Left - Stamp seals of the Indus Valley Civilization revealing unambiguously the unicorn (with incense burner), a symbol of 11th Tirthankar Shreyasnatha of Jainism (cf. Figure 2). Right - Impression of a cylinder seal of the Akkadian Empire, with label: "The Divine Sharkalisharri Prince of Akkad. The long-horned buffalo is thought to have come from the Indus Valley, and testifies to exchanges with Meluhha, the Indus Valley civilization, 2217- 2193 BCE, Louvre Museum. However, it should be noted that the carved buffalo is a symbol of 12th Tirthankr Vasupujya of Jaina.



Figure 3c: Swastika seals of Indus Valley Civilization in British Museum. The swastika is a symbol/ logo of Jain tirthankar Suparshwanath, and, in fact, swastika is a sacred icon in all Śramana traditions in India in general and in Jainism in particular.

The major evidence of existence of Jain tradition before the Indus Valley Civilization is obtained from the seal of Siddha Shila as shown in Figure 4. According to Jain/Śramana tradition the Siddha shila is an area in Jain cosmology at the apex of the universe, where the people who have become arihants and tirthankaras go after their salvation and attain moksha. Such people are called siddhas after they discard their mortal body (Kuiper, Kathleen, 2010). The structure of the Siddha Shila appears like a crescent moon in Jainism as shown in the bottom side of the Figure 4. On comparing we find similarities in large except in the top image we find birds flying in opposite direction and at the center location of Siddhas, while in the bottom image the Siddhas are shown above the crescent moon. However, the seal represents boat kind of structure, and thus it may also be interpreted as the source to cross this miserable world and birds indicate to fly away from "Sansara". But the correct interpretation requires more investigation on this seal.

Further, there are strong archeological and geographical evidences that farming during the Neolithic period spread from the Near East into north-west India, but there is also "good evidence for the local domestication of barley and the zebu cattle at Mehrgarh (Gangal et al., 2014). On the other hand, the Mehrgarh site "demonstrates that food production was an indigenous South Asian phenomenon" and that the data support interpretation of "the prehistoric urbanization and complex social organization in South Asia as based on indigenous, but not isolated, cultural developments" (Shaffer, Jim G.,1999). The cattle that are often portrayed on Indus seals are humped Indian bulls, which are similar to Zebu cattle. Zebu bull is still common in India, and in Africa. It is different from the European cattle, and had been originally domesticated on the Indian subcontinent, probably in the Baluchistan region of Pakistan (Gallego Romero, Irene; et al., 2011; Srinivasan, Doris, 1975). It

should be mentioned that the bull is a logo/symbol of the first tirthankar Shri Rishabhnatha of Jain tradition (cf. Figure 2 and 3). Further, on the other hand, it has been widely established and known that Shri Rishabhnatha, 1st tirthankar of Jainism, taught six professional techniques to the people as follows in the early Paleolithic era: (1) Asi (swordsmanship for protection), (2) Masi (writing skills), (3) Krishi (agriculture), (4) Vidya (knowledge), (5) Vanijya (trade and commerce) and (6) Shilp (crafts) (Jain, Champat Rai, 1929; Sangave, Vilas Adinath, 2001; Shah, Natubhai, 2004). Further, he is also credited with introducing karma-bhumi (the land and period for action) by founding arts and professions to enable householders to sustain themselves (Dundas, P., 2002: Jain, Champat Rai, 1929; Jain, Kailash Chand, 1991). Rishabhanatha also invented and taught fire, cooking and all the skills needed for human beings to live. Shri Rishabhanatha is said to have taught seventy-two skills and techniques to men and sixty-four to women (Dalal, Roshen, 2010). Further, the social system of marriage was also established by him after his marriage marked the precedence (Jaini, Padmanabh S., 2000). According to Paul Dundas (2002) Shri Rishabhanatha is a spiritual, culture and technological hero of the current cosmological cycle. Therefore we may conclude that the agricultural evidences found at Mehargah and in other regions of Indus Valley Civilization are socio-cultural continuation of knowledge based society of Jain tradition.



Figure 4: Top: The Siddh Shila, an icon of sacred place in Jain cosmology. It is a final destination of Arihnats/ tirthankaes after their salvation, in the form of a boat structure showing the direction of Karmas through birds, model of IVC Mohenjo-Daro seal, 3000 BCE made employing either terracotta technique or carved on a red stone. Maritime Heritage Gallery, India National Museum, New Delhi. Complete indexed photo collection at WorldHistoryPics.com. Bottom: the recent picture of Siddha Shila of the modern era is shown for comparison. Note some differences, which require further investigation to prove the seal truly reflects the Siddha Shila.

5.2 Śramana Tradition across the Red Sea:

Recently, Dr. Rajmal Jain (2020) cites his discovery of many Jain temples in West Asian and African countries as well as Nigantha Tradition in South American countries that revealing the existence of Jainism dating back to more than 5000 years BCE. He claims finding of evidences of visit of Shri Rishabhdev and/ or his followers in different continents of the world to propagating Śramana culture and Nigantha tradition, however, with different names according to regional language of the continents and suiting to the local folk. Shown in Figure 5 and 6 are the remnants of great temple of the Moon and associated evidences such as Abhishek (ablution/anointment) kund, presently existing in the Tigray region of Ethiopia, The artifacts and other evidences reveal that this temple is of 8th tirthankar Shri Chandraprabhu.



Figure 5: Left: The great Moon Temple of Yeha, Tigray Region, Ethiopia. Front view of the entrance of the big campus of the temple. The one big hall comprising of both Garbhgraha and Mandapgraha. The tall stone strictures appear to be of Sabaean tradition. Right: Ablution well (kund) to showering the Chandraprabhu according to Jain tradition.

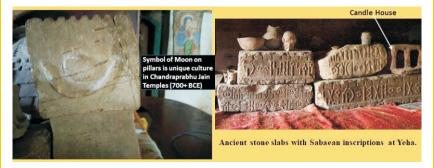


Figure 6: Left: The icon of Sh. Chandraprabhu, almost 1200-700 BCE. During this era except Jainism no other religions was existing. Right: Ancient stone slabs of the temple on which Sabaean Inscription is written. The arrow marks the stone made Diva Ghar (lamp house).

Similarly, in the same Tigray region the temple of Almaqah exists since more than 3000 years before present. In Figure 7 is shown the Abhishek Vedi (Anointment altar) of the Almaqah temple. In fact the name of the temple is Addi Akaweh, perhaps, related with God Aadinath. The structure of Anointment altar is also made of stone and appears to be from Sabaean culture. For detailed description and various evidences obtained from West Asia and African countries the readers are suggested to read the article by Dr. Rajmal Jain on "Exploring Śramana Culture/ Jainism in the Tigray Region of Ethiopia" published in this issue of Journal of Archaeology and Culture. It has been concluded in this article that the Śramana culture was existing much long before the birth of Shri Parshwanath and Shri Mahāvīra in India as well as in the West Asia and Africa. The Śramana culture was dominating and well organized tradition in the regions currently called as Iran, Israel, Palestine, Saudi Arabia, Yemen on one side, and the Ethiopia, Kenya, Egypt, Greece etc. on the other side of the Red Sea.



Figure 7: Left: The hexagonal shaped well carved and script written Abhishek Vedi (Anointment Altar) at Addi Akaweh temple of Almaqah. Right: Top view shows the location of the statue where Abhishek process was being conducted. The side arrow indicates script in Sabean language.

Dr. Rajmal Jain (2020) descibes that the Indian sholars team observed the artifacts, analysed the iconography details, and archaeological, anthropological and historical evidencs. The study unambiguously reveals that almost one milleneum BCE the Tigray region was largely dominated by the community of Śramana culture, and the ruling kings of the empire were also from this community (priest-king). This may be further endorsed from the inscription written on the stele/ flagstone in Sabaean Ge'ez, language. He showed that the ancient South Semitic language of the East African came from the present Yemen and Saudi Arabia, the earlier Sabaean region. Many evidences were found to prove that the Tigray region was thickly populated and under dominance of Śramana culture viz. the artifacts and archaeological evidences found at the Great Moon temple and the Almaqah temple, the monastery (Sant Bhavan) and the inscriptions found in the Aksum etc. The

ethics and practices followed by Orthodox Christians as well as the discussions held with priests regarding this community further endorsed that Sabaean culture was either Śramana culture or it was highly influenced by the presence of Śramana community in the Tigray region. Most of the inscriptions on the stele/ flagstone are in Sabaean Ge'ez language, which is an ancient South Semitic language of the East African branch and came from the present Yemen and Saudi Arabia. Although we could not derive the exact translation of the script written on the flagstones but the process of understanding and learning the script is in well progress. However, it is very important to mention that the Jerusalem, the oldest city of the world, was either the head-quarter or the central place of Śramana culture. Dr. Jain also showed that the Ten Commandments, also known as the Decalogue of current Orthodox Christians, are a set of philosophical principles relating to ethics and worship that played a fundamental role in the prehistoric or ancient religion of few thousands of years BCE, perhaps the Śramana culture/ Jainism. In conclusion the study revealed that the Śramana culture existed since several millenniums BCE in the continents on both sides of the Red Sea (cf. section 1).

5.3 Signatures of the Nirgrantha Tradition in South America:

It is widely known in the ancient history that Mesopotamia, Egypt, China, and India, gave rise to the first civilizations of mankind. However, very few are aware that at the same time, and even in some cases before these societies emerged, another great civilization had sprouted - the Norte Chico civilization of Supe, Peru – the first known civilization of the Americas. Their capital was the Sacred City of Caral – a 7000 year or older metropolis complete with complex agricultural practices, rich social and scientific culture, and monumental architecture, including six large pyramidal structures, stone and earthen platform mounds, temples, amphitheaters, sunken circular plazas, and residential areas (Jain, Rajmal, 2021). The establishment of human groups in the Andean region of South America dates back to 10000 years BCE, although some investigations place their birth around four thousand years earlier. Early hunter-gatherer societies were progressing towards more complex structures on the basis of primitive agricultural activity (Jain Rajmal, 2021). A milestone in regional development is the establishment of the city of Caral, the oldest known city whose structure and dimensions account for important state and religious development with Śramana culture, appears to be started by a king of six continents, perhaps, Rishbahdev or his follower (Jain, Rajmal, 2021).

The Caral or Caral-Supe civilization flourished in the north-central area of the present- day territory of Peru and came to have around 30 populated settlements. The most transcendental achievement of this culture was its architectural development, with monumental stone and clay buildings. The quality and the method used in their buildings gives a great account of the use of building techniques and the knowledge of arithmetic, geometry, and

calculation. In addition, they did not neglect the aesthetics of their constructions, polishing the rocks for their best appearance and embellishing them with paintings made from stones, plants and ground flowers.

The Caral-Supe culture was pre-ceramist; it developed between 5000 and 1800 BC (Late Archaic), and existed before or alongside other early civilizations such as Egypt, India and Mesopotamia (For more details read Jain, Rajmal, 2021). The remains rescued in Caral and other settlements of the Supe valley, such as Ápero, Miraya, Lurihuasi and Chupacigarro, as well as Vichama in the valley of Huaura, have transformed the history of Peru, by showing that in the north-central area, a civilization was formed of an antiquity comparable to those of the Old Continent. The most important legacy is the city of Caral, considered the oldest American city, its construction dates between 2627 and 2100 BCE, which highlights the absence of ceramic productions. It was discovered in 1905, its full name, Caral-Supe, is derived from the sacred city that is in the valley of Supe, in Lima. Among its varied structures and plazas stands the Great Pyramid. The city of Caral consists of a group of monumental buildings, with different ceremonial and administrative functions. Chronologically, it is the oldest settlement in the Americas, and perhaps in the world, that has these characteristics and therefore is considered the first city of the Americas.

According to Dr. Rajmal Jain (2021) the Sacred City of Caral is located at the beginning of the Lower Middle Valley area of the Supe Basin, 26 km from the pacific ocean coast and 350 meters above sea level, occupying an area of 66 hectares, in which two zones are distinguished: nuclear and marginal. In the nuclear zone, the buildings are divided into two sectors: the upper sector, which has the largest public and residential buildings, seven monumental buildings, two circular sunken plazas, two collective congregation spaces, and residential units for officials, as well as an extensive residential suite of specialists and servers. On the other hand, the lower sector has smaller buildings, such as the architectural complex of the Amphitheater, the Circular Altar building and a smaller residential complex. The marginal zone, located in the periphery, contains residences grouped and distributed, as an archipelago, along the alluvial terrace that borders the valley. Each public building was built in relation to a certain deity and astral position. In them, multifunctional activities were carried out on certain dates of the annual calendar. Shown in Figure 9 are the pyramid type temples in the arid Supe Valley of the Caral site located 20 km from the Pacific Ocean, near Lima, Peru.

The main temple complex is 150 meters long, 110 meters wide and 28 meters high. The date of its construction is unknown. Findings from our study suggest it was a gentle society, built on commerce and pleasure. No indications of warfare have been found at Caral: no battlements, no weapons and no mutilated bodies. This contrasts with the older civilization of Sechin Bajo where depictions of weapons are found. In one of the temples, researchers uncovered 32 flutes made of condor and pelican bones and 37 cornets of deer

and llama bones. One find revealed the remains of a baby, wrapped and buried with a necklace made of stone beads (Shady, R. Haas, J. Creamer, W., 2001). Each temple was managed and maintained by the priest king under the guidance of nude monks. These temples were in pyramid shape and structure, and constructed in omni-directional system i.e. in the east-north-west-south directions. At the center of this large hill-lock type temple complex we found a big flagstone mounted, and the Indian Scholars team concluded that it may be a symbolic representation of Manak stambh (cf. Figure 12).



Figure 8: The Caral Pyramid structure temples in the Arid Supe Valley, some 20 km from the Pacific coast (cf. the text above).

In view of aforesaid description and various archaeological evidences it appears that the Caral-Supe culture (\sim 7000 years BCE) was, in fact, of the period of the Nirgantha Tradition, a very primitive and ancient phase of Śraman culture. The Nigantha (निगण्ड) or Niyantha or Nirgrantha refers to a Jain monk or ascetic who renounces remaining nude throughout the life. Nigantha is also discussed in Theravada glossary of Buddhism. Thus Pāli sources do not seem to bear trace of any malicious or derogatory interpretation of the term. The fact that nigantha is used as the normal designation of Jain ascetics in the oldest Jain sources (Śramanic poetry as well as disciplinary books) confirms its antiquity. The phonetic aspect of the word (nigantha, with a single -ga-, and the prefix ni- instead of nir-) are supported by Prakrit iyantha and also point to an old form.

The ablution or anointment of the statue is very historical in Śraman culture irrespective to available infrastructure or facilities as may be observed in the Figure 9, which is the ablution well/ Abhishek kund. The statue must have been brought by the monk or priest and mounted at appropriate place inside the kund to conduct the process of the anointment. It is made of local stones and clay etc. It is being maintained by the live museum authorities at the Caral-Supe site near Lima, Peru. The various features of the ablution kund may be noted such as the circular shape, suitable location to mount the statue, the outlet etc. Shown in Figure 10 is the iconography of the intaglio engraving figures on the stones at the Caral-Supe site revealing various stages of renunciation of the Nigantha (निगण्ड) monks' viz. meditation, kesh lonch (self-hair dressing), salenkhana, samadhi etc., which are the unambiguous evidences suggesting that the Caral-Supe civilization was basically a Nigantha tradition society.



Figure 9: The sacred ablution well/Abhishek kund. The statue must have been brought by the monk or priest and mounted at appropriate place to conduct the process of the anointment. It is made of local stones and ceramic powder etc. It is being maintained by the live museum authorities at the Caral-Supe site near Lima, Peru. The various features of the ablution kund may be noted such as the circular shape, suitable location to mount the statue, the outlet etc.



Figure 10: The iconography of the intaglio engraving figures on the stones at the Caral-Supe site. Left—the figures reveal kesh lonch (self-hair dressing) and meditation (yoga); Right - figures showing all different activities of renunciation such as different types of Yogas, meditation, salenkhana, samadhi etc. of Nigantha Sadhus (monks).

Further, we found a very large compound with steps for seating of the monks and the folk to conduct ceremonies as shown in Figure 11. The circular square located in a depression of the land may be seen and this could be accessed by means of two great stairs. This place was also used for exchanges of products such as pumpkin, beans and peppers. The terraces located in an

overlapping way, the people were concentrated on them to carry out their works. The central Staircase is the main access to ceremonial facilities. The Atrium was the ceremonial space of excellence, with a central celebration/oblation (यज्ञ) and staggered stools. The altar in quadrangular format, it had an underground ventilation duct. In one of the many venues the ceremonial rites were developed. It was adorned with niches. The west wing was a complex of large terraces that were accessed by a side staircase. The Fogón, an altar of the Sacred Fire was in an enclosure decorated with friezes and niches. There used burnt offerings as a means of communication with the gods (performing the Yagna). The celebration and ceremonies were being conducted in the presence of Chief of the monks and the priest. East side is the one in which more superposed terraces were concentrated, seven in total, with enclosures and stairs that connected them to each other.



Figure 11: Left: a very large compound with steps for seating of the monks and the folk to conduct ceremonies. The circular square may be seen with two stairs. This place was also used as rural market to exchange the products. The Atrium was the ceremonial space of excellence, with a central celebration/oblation (यज्ञ). Right: location of the oblation is visible at the center of the circular square. There used burnt offerings as a means of communication with the gods (performing the Yagna). The celebration and ceremonies were being conducted in the presence of monks and the priest.

It was very interesting to note that people of few settlements became non-vegetarian and started eating fish and other animals around 2000-1500 BCE, while, on the contrary, many settlements continued to follow the Nigantha Tradition. It was also surprising to note that before the birth of last three tirthankas, the nude monks/ priests and even the folk of this Nigantha tradition were good scholars of mathematics and astronomy, which are the fundamental features of Jain/ Śramana culture (cf. Jain Agamas). At the entrance gallery of the live museum of the Caral site itself the display exhibits reveal these features of cosmological knowledge as shown in Figure 13. The left and right figures of the top panel indicate the superb knowledge of constellations (nakshtras) and zodiacs (rashis), and similarly the bottom panel indicates their knowledge about the structure of Jambu-dweepa, currently

known as galaxy, consisted of 7 sacred kshtras, and similar to Jambu-deepa there are 8 such continents (Jain, Rajmal and Jain, Anupam, 2017, Jain, Rajmal, 2019). We observed the structure like Jambu-dweepa made on the ground using stone pebbles and nails, which is similar to the structure of the modern galaxy. We found such structures made at many places at the Caral-Supe site.



Figure 12: Left – Seen in the front-line are the members of the Indian Scholars team: the author Dr. Rajmal Jain, Dr. Sneha Rani Jan and Dr. Bhagchand Bhaskar, Right – the flagstone, perhaps a symbolic representation of Manak Stambh, a popular known structure in front of the temples of Śramana culture.

5.3.1 Maya Civilization:

Further, very interestingly, another settlement of a civilization, known as Maya civilization evolved in the Mesoamerican region from the same Archaic Period, 7000-2000 BCE, when the hunter-gatherer culture began to cultivate crops such as maize, beans and other vegetables and the domestication of animals (most notably dogs and turkeys) and plants became widely practiced (cf. section 4, teachings of Shri Rishabhnatha). The first villages of the region were established during this period which included sacred spots and temples dedicated to various gods. The villages excavated thus far are dated from 2000-1500 BCE. The Maya are an indigenous people of Mexico and Central America who have continuously inhabited the lands comprising modern-day Yucatan, Quintana Roo, Campeche, Tabasco, and Chiapas in Mexico and southward through Guatemala, Belize, El Salvador and Honduras. The designation Maya comes from the ancient Yucatan city of Mayapan, the last capital of a Mayan Kingdom in the Post-Classic Period. The Maya people refer to themselves by ethnicity and language bonds such as Quiche in the south or Yucatec in the north (though there are many others). The 'Mysterious Maya' have intrigued the world since their 'discovery' in the 1840 but, in reality, much of the culture is not that mysterious when understood. Contrary to popular imagination, the Mayan did not vanish and the descendants of the people who built the great cities of Chichen Itza, Bonampak, Uxmal and Altun Ha still exist on the same lands their ancestors did and continue to practice, sometimes in a modified form, the same rituals which would be recognized by a native of the land few thousand years ago (Jain, Rajmal, 2021). We visited Guatemala and Mexico and talked to Mayan people and the discussions enabled us to conjecture that their ancestors and forefathers, perhaps, were from Śramana culture and practiced the rituals of this tradition. For more details, we suggest readers to read the next article by Dr. Rajmal Jain (2021) to appear in the next issue of this journal.



Figure 13: Top panel – Recent artistic view of the figures made on the basis of observations of the celestial objects by the monks, and representing the shapes of constellations and zodiacs currently popular in the astronomy and astrology. Bottom panel – the figures of the Milky-way galaxy made of pebbles (left) and nails (right) which, perhaps, represent the Jambu-dweepa where our home (Earth) belongs.

The Maya civilization developed over time and during the Zapotec Period (600 BCE-800 CE), the region surrounding modern-day Oaxaca, the new cultural center now known as Monte Alban was founded which became the capital of the Zapotec kingdom. The Zapotecs were clearly influenced by or perhaps related to the Olmecs and, through them, some of the most important cultural elements of the region were disseminated such as writing, art and craft, mathematics, astronomy and the development of the calendar; all of which the Maya would refine in view of their original knowledge obtained from the Śramana culture (cf. section 4). Maya civilization was originated from the Śramana culture and people were following and practicing ethics of the same, which may be further endorsed from the architectural design of the temples appearing like Samosharan (pyramid). We observed such pyramid temples that have been constructed in Tikal in Guatemala and also in Mexico by Mayan. In Figure 14 we show pyramid type Samosharan temples, which give us an impression of the talent and knowledge of the Śramana culture of

Mayan, and motivates to imagine that, perhaps, during their era they might have witnessed the salvation of Tirthankara. Readers may find more details in the forthcoming article of Dr. Rajmal Jain (2021) in this journal.



Figure 14: The pyramid structure like Samosharan temples still existing in Tikal, Guatemala, South America. Inside the temple there is a hall for meeting and discussions etc. The top of the building is area of the monk/ priest from where he was addressing to the large audience seating in the big ground. The temples are constructed facing to all four directions with a large ground for seating of the folk and animals. In front of each temple a flagstone, a symbolic representation of the Manak Stambh may be noted.

On the other hand, during the Teotihuacan Period (200-900 CE), after birth of Shri Parshwanatha and Shri Mahāvīra, the great city of Teotihuacan grew from a small village to a metropolis of enormous size and influence. Early on, Teotihuacan was a rival of another city called Cuicuilco but, when that community was destroyed by a volcano around 100 CE, Teotihuacan became dominant in the region. Archaeological evidence suggests that Teotihuacan was an important religious center which was devoted to the

worship of a Great Mother Goddess and her consort the Plumed Serpent. The Plumed Serpent god Kukulkan (also known as Gucamatz) was the most popular deity among the Maya. We propose strongly that the Great Mother Goddess (serpent goddess) was, perhaps, Padmawati, and her consort Dharanendra, a serpent god, who saved 23rd Tirthankar Parshwanath from the wretched acts of Kamath. In Figure 15 we show the remnant statue of Dharanendra with spread his fangs all across the head currently located at Trikal in Guatemala. Like many of the cities which now lie in ruin throughout the southern Americas, Teotihuacan was abandoned sometime around 900 CE.

During exploratory visit of Indian team to Peru, Guatemala and Mexico during January 2020 met to Indian Ambassador in Peru and Guatemala as shown in Figure 16. During the visit to Shri Mandarapu Subbarayudu, Indian Ambassador in Peru, team members briefed the presentations made at the seminar organized jointly by All India Digamber Jain Mahasabha, New Delhi and The National University of San Marcos (UNMSM), Lima, Peru at the Dept. of Philosophy and Religion during 13-14 January 2020. On the other hand, Shri B.S. Mubarak, Indian Ambassador, Guatemala invited Dr. Rajmal Jain, author of this paper, to participate in the Republic-Day ceremony on 26 January 2020. Dr. Jain also briefed him about the purpose of visit and outcome of exploration of Jainism in Guatemala in context to Tikal temples and Maya civilization. Both ambassadors, Shri Mandarapu Subbarayudu and Shri Shri Mubarak, advised and motivated the Indian team to prepare a good project and visit for a longer period and more frequently to explore in depth.



Figure 15: The remnant statue of Dharanendra with spread of his fangs all across the head, currently located at Trikal in Guatemala. The statue is deteriorating because made of sandstone.



Figure 16: Left - The Indian Scholars team at the Indian Embassy to visit Ambassador Shri Mandarapu Subbarayudu and briefed him about the Seminar held at the Dept. of Philosophy and Religion, The National University of San Marcos, Lima, and the outcome of the visit of Caral- Supe site (cf. text above). Right – Shri B.S. Mubarak, Indian Ambassador, Guatemala invited Dr. Rajmal Jain (on left side), author of this paper, to participate in the Republic-Day ceremony on 26 January 2020. Dr. Jain also briefed him about the purpose of visit and outcome of exploration of Jainism in Guatemala in context to Tikal temples and Maya civilization.

6. Jainism in the Scientific Perspective:

It has been mentioned in several Jain canonical texts that Jainism is an eternal religion and has been existing since the beginningless time and will continue forever. In this context, and in the view of pre-history of Jainism in general and the earlier ten incarnation (Das Bhav) of Shri Rishbhanatha in particular (cf. section 2), we reviewed the antiquity of Jainism in the perspective of science.

Homo-sapiens is a part of a group called hominids, which were the earliest humanlike creatures. Based on archaeological and anthropological evidence, we think that hominids diverged from other primates somewhere between 2.5 and 4 million years ago in eastern and southern Africa. Adventures discovery of Luci in Ethiopia, Africa is a great example of development of hominid, however, without brain (Jain, Rajmal, 2012). Though there was a degree of diversity among the hominid family, they all shared the trait of bipedalism, or the ability to walk upright on two legs (Strayer, Robert W. and Eric W. Nelson, 2016). However, in summary we may conclude that the Homo sapiens, the first modern humans, evolved from their early hominid predecessors between 200,000 and 300,000 years ago. They developed a capacity for language about 50,000 years ago. The first modern humans began moving outside of Africa starting about 70,000-100,000 years ago. Humans are the only known species to have successfully populated, adapted to, and significantly altered a wide variety of land regions across the world, resulting in profound historical and environmental impacts.

According to the savannah hypothesis, early tree-dwelling hominids may have been pushed out of their homes as environmental changes caused the forest regions to shrink and the size of the savannah expand. These changes, according to the savannah hypothesis, may have caused them to adapt to living on the ground and walking upright instead of climbing (cf. section 2). Hominids continued to evolve and develop unique characteristics. Their brain capacities increased, and approximately 2.3 million years ago, a hominid known as Homo habilis began to make and use simple tools. By a million years ago, some hominid species, particularly Homo erectus, began to migrate out of Africa and into Eurasia, where they began to make other advances like controlling fire (Bulliet, Richard W. et. al., 2011).

Though there were once many kinds of hominids, only one remains: Homo sapiens. Extinction is a normal part of evolution, and scientists continue to theorize why other hominid species didn't survive. We do have some clues as to why some species were less successful at surviving than others, such as an inability to cope with competition for food, changes in climate, and volcanic eruptions (Spodek, Howard, 2006). Between 70,000 and 100,000 years ago, Homo sapiens began migrating from the African continent and populating parts of Europe and Asia. They reached the Australian continent in canoes sometime between 35,000 and 65,000 years ago. Scientists studying land masses and climate know that the Pleistocene Ice Age created a land bridge that connected Asia and North America (Alaska) over 13,000 years ago. A widely accepted migration theory is that people crossed this land bridge and eventually migrated into North and South America (Melissa Hogenboom, 2017). How were our ancestors able to achieve this feat, and why did they make the decision to leave their homes? The development of language around 50,000 years ago allowed people to make plans, solve problems, and organize effectively. We can't be sure of the exact reasons humans first migrated off of the African continent, but it was likely correlated with a depletion of resources (like food) in their regions and competition for those resources. Once humans were able to communicate these concerns and make plans, they could assess together whether the pressures in their current home outweighed the risk of leaving to find a new one (Bentley, Jerry H. et. al., 2015).

When humans migrated from Africa to colder climates, they made clothing out of animal skins and constructed fires to keep themselves warm; often, they burned fires continuously through the winter. Sophisticated weapons, such as spears and bows and arrows, allowed them to kill large mammals efficiently. Along with changing climates, these hunting methods contributed to the extinction of giant land mammals such as mammoths, giant kangaroos, and mastodons. Fewer giant mammals, in turn, limited hunters' available prey. In addition to hunting animals and killing them out of self-defense, humans began to use the earth's resources in new ways when they constructed semi-permanent settlements. Humans started shifting from nomadic lifestyles to fixed homes, using the natural resources there. Semi-permanent settlements would be the building-blocks of established communities and the development of agricultural practices (Bentley, Jerry H. et. al., 2015).

In view of the foregoing description, if we consider the first skilled human evolution between 2 and 4 lakhs years ago, and with significant talent between 1 and 2 lakhs years, and the language developed about 50,000 years ago then it would be helpful to comparing it with the climate cycle of the Earth and Jain Kalchakra to estimate the period of Rishabhnatha and his earlier ten incarnations (Das Bhav). Dr. Rajmal Jain (2012) cited a verse from Acharyashree Hemchandracharya as follows.

अह भगवं भवमहणो, पूट्याणमणूणमं सयसहस्सं। अणुपुट्यीं विहरीऊणं, पत्तो अठ्ठावयं सेलं। 433।। अठ्ठावयंमि सेले, चउदस भत्तेण सो महरिसीणं। दसिह सहस्सेहिं समं, निट्याणमणुत्तरं पत्तो। 434।। निट्याणं चिइगागिई, जिणस्स इरवाग सेसयाणं च। सकहा थूभर जिणहरे, जायग तेणाहि अम्मित्ति। 435।।

अर्थात् संसार के दुःखों का अन्त करने वाले भगवान ऋषभदेव संपूर्ण एक लाख पर्व तक पृथ्वी पर विहार करके अनुक्रम अष्टापद पर्वत के ऊपर पहुँचे। वहाँ छ उपवास के पश्चावत दस हजार मुनिगण के साथ निर्वाण को प्राप्त हुए। जहाँ भगवान ने निर्वाण प्राप्त किया था वहाँ देवो ने स्तूप बनाए और भरत चक्रवर्ती ने चौबीस तीर्थंकरों के वर्ण एवं परिमाण के समान सपरिवार मूर्तियाँ स्थापित की और जिन मंदिर बनाया। (Hemchandrasuri Ji M.S~1100AD)

The above verse suggests that Shri Rishabhnatha travelled all over the Earth for a significantly large period of one lakh purva, and then he reached to Ashtapad for salvation. This indicates that his life span period was much longer and thus he would have born at least few tens of thousands of years before present (B.P). Therefore, his earlier ten incarnations might be few lakhs of years before present, however, cannot be beyond 4 lakhs of years because temperature growth was very slow, which did not allow to develop the brain of hominids. Thus considering the religious and scientific aspects together we analyzed the climate cycle of the Earth for the last ~420000 years B.P as shown in Figure 17.

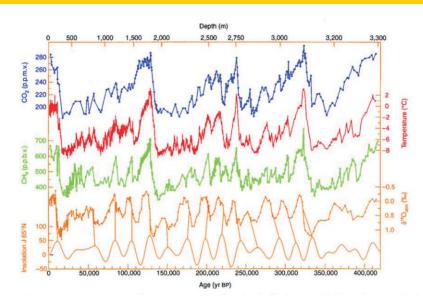
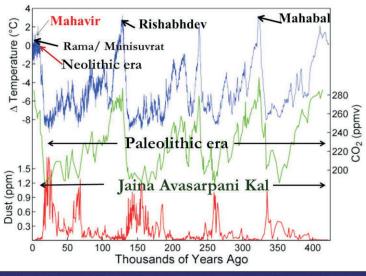


Figure 17: Variation of the Earth's temperature, atmospheric CO_2 , O_2 , methane (CH_4) and insolation over the past 420000 years. Note the 100000 years typical periodic variation in all the parameters. Whenever the temperature and CO_2 reach to minimum, about every 100000 years, the Earth is largely covered by the ice and the period is known as Last Glacial Maximum (LGM). The last LGM was around 23000 years ago before present.

In Figure 17 we may note the variation of the Earth's temperature, atmospheric CO₂, O₂, methane (CH₄) and insolation over the past 420000 years. Several analysis of ice cores have shown that the 100000 years typical periodic variation in all the parameters. Whenever the temperature, CO₂ and other proxies reach to minimum, about every 100000 years, the Earth is largely covered by the ice sheets and the period is known as Last Glacial Maximum (LGM). The last LGM was around 23000 years ago before present. The Earth's temperature variation, carbon-di-oxide and dust levels are derived as a function of time by the radio-active processing of the Vostok ice-core obtained by digging in the Antarctica (Andrey N. Salamatin et.al., 2004). The plots shown in Figure 18 are of the three parameters and, in fact, they reveal Milankovitch cycles that describe the collective effects of changes in the Earth's movements on its climate over few thousand years viz. ~100000 years of eccentricity variation; ~41000 years of axial tilt obliquity variation and ~ 23500 years of axial precession (Jain, Rajmal, 2012, 2019). The last LGM, around 23000 years before present, was extremely severe, and the Earth was significantly covered by the ice sheets.



Note: From 850 to 630 Million year B. P. most severe Ice Age in the Earth's histor

Figure 18: Variation of temperature, $\mathrm{CO_2}$ and dust over the last 420000 years. The temperature and $\mathrm{CO_2}$ reached to minimum after every 100000 years while many other excursions at the periodic interval of 41000 and 26000 years as well as of shorter periods of about 200 and 400 years of solar origins may also be noted. However, the dust levels go inversely because they expand after the volcano eruption, which launches the $\mathrm{CO2}$ emission. Corresponding period of Jain Kaal Chakra and birth of Shri Rishabhdev and his first incarnation Mahabal as well as for Shri Rama and Mahāvīra are also indicated by arrow.

It is obvious from the Figure 17 and 18 that the variation of temperature, CO₂ and dust is periodic and, in fact, it reveals the periods of Earth's motion known as Milankovitch cycles. It may be noted that over the last 420000 years, the Earth has observed four LGM separated by 100000 years. In addition, the Earth has also experienced many other periodic excursions of about 41000 and 26000 years as well as of shorter periods of about 200 and 400 years of solar origins. However, the dust levels go inversely because they expand after the volcano eruption, which enhances the CO₂ emission. We analyzed the temperature and CO₂ emission data in the light of Jain Kaal Chakra (cf. section 1) and the scientific data of human evolution periods over the last 400000 years in order to estimate the period of Shri Rishabhnatha and his earlier first incarnation Mahabal as well as the periods of Shri Ram, Munisuvratnatha and Mahāvīra. However, error estimation may be of few hundreds of years. Such a comparative analysis revealed that, most likely, Shri Rishabhnatha and corresponding first incarnation Mahabal born around 140000 and 329000 years before present respectively. The estimation appears to be reasonable in context to significant atmospheric temperature and CO₂ level required for the

brain functioning and talent etc., which has been described in Jain canonical texts for the talent of Rishabhnatha and his ten incarnations. It may be noted that the other eight incarnations (cf. section 2) might have born during the period between 329000 and 140000 years before present, however at the time of suitable temperature and other parameters. Perhaps each incarnation was separated by ~23500 years of axial tilt period and considering this period we may obtain 8 Bhay (incarnation) of Shri Rishabhnatha.

Further, the pre-history of Jainism in view of the Agamas suggests that Shri Vadjrajung, the 3rd incarnation of Rishabhnatha, perhaps born around 280000 years before present, married with Shrimati and on the next day of his marriage visited the Mahaput Jin Chaitalya along with Shrimati in the afternoon time. They worshiped the Jinendra Dev, first performing ablution and then with Asht-dravya and other incense burners. The details of Shri Vajrajanga and his wife and their life span as well as the various religious events have been described in Aadipurana (Mahapurana) in the verses from 269-279 written by Acharya Jinasena and translated by Shri Pannal Lal Jain (Panna Lal Jain, 1928). Thus in the perspective of science, history, religion and anthropology we may conclude that the pre-history of Jainism and the ten incarnations of Shri Rishabhnatha are a real and true descriptions that took place in the current Awasarpani Kaal.

The above may be further endorsed from the Padmapurana where it has been described that Prabhu Shri Ram along with Sita and Lakshman, after departure from Avodhya for 14- years of banishment, first visited the Jain temple of Arahnatha, 18th Tirthankara of Jainism, located at the shore of the Saryu river. The temple had three doors and all the folk of Ayodhya could reach up to second door and then they were expelled out from there by the guard/ watchman. However, Shri Ram, Lakshman and Sita could access the third door and worshiped Arahnatha with heart (man), speech (vachan) and body (kaya) and prayed for the blessings (Verses from 215-241, Padmapurana). This suggests that period of Ram was much after the period of tithankar Arahnatha. Further, it has been cited many times that the 20th tirthankar Munisuvratnatha was contemporary of Shri Ram (Shah, Natubhai, 2004; Zvelebil, Kamil, 1992). This indicates that the period of Munisuvratnatha may be same as of Shri Ram. Mr. Pushkar Bhatangar employing precise Planetarium software calculated the birth time and date of Shri Ram to be 12:30 PM of 10 January 5114 BCE (Birth date of Rama - HitXP; Lord Ram's date of birth revealed/ India News/ Zee News). Thus period of Shri Munisuvratnatha is likely to be around 7135 years before present, which appears to be reasonable in view that 22nd tirthankar Shri Neminatha born during the period of his cousin Shri Krishna, whose date of birth has been calculated to be 18 July 3228 BCE and he died on 18 February 3102 BCE. The great mega Mahabharat war took place in Kurukshetra when Krishna was of 89 years old. This enables us to estimate the birth period of Shri Neminatha to be about 5249 years before present i.e. almost 1886 years after shri Munisuvratnatha. Shown in Figure 19 are the historical statues of Munisuvratnatha, Neminatha, Parshwanatha and

Mahāvīra. The last two tirthankars are Parshwanatha and Mahāvīra. The Jain sources place Parhswanatha between 872 -? 772 BC (Zimmer, Heinrich, 1953; Martin, Nancy M. and Runzo, Joseph, 2001), whereas historians consider that he lived in the 8th or 7th century BC (Dundas, Paul (2002, 1992). In fact, Parshvanatha was born 273 years before Mahāvīraa. He was the spiritual successor of 22nd tirthankara Neminath. He is popularly seen as a propagator and reviver of Jainism. Parshvanatha attained moksha on the Mount Sammeda (Madhuban, Jharkhand), popular as Parasnath hill in the Ganges basin, an important Jain pilgrimage site. His iconography is notable for the serpent hood over his head, and his worship often includes Dharanendra and Padmavati, highly important Devtā and Devī in Jainism (cf. section 5 – Maya Civilization). Shree Mahāvīra born in 599 BCE and attained moksha in 527 BCE. He was the spiritual successor of the 23rd Tirthankara Parshvanatha. Mahāvīraa was born into a royal Jain family in Bihar, India. His mother's name was Trishala and his father's name was Siddhartha. They were lay devotees of Parshvanatha. Mahāvīraa abandoned all worldly possessions at the age of about 30 years and left home in pursuit of spiritual awakening, becoming an ascetic. Mahāvīraa practiced intense meditation and severe austerities for 12 and half years, after which he attained Kevala Gyan (omniscience). He preached for 30 years and attained Moksha (liberation) in the 6th century BCE.

Mahāvīraa taught that observance of the vows of ahimsa (non-violence), satya (truth), asteya (non-stealing), brahmacharya (chastity), and aparigraha (non- attachment) are necessary for spiritual liberation. He taught the principles of Anekantavada (many-sided reality): syadvada and nayavada. Mahāvīraa's teachings were compiled by Indrabhuti Gautama (his chief disciple) as the Jain Agamas.



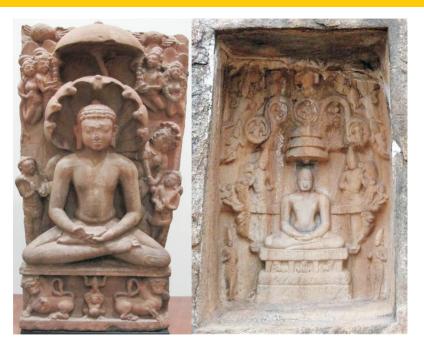


Figure 19: Top left - The 6th century AD statue of Shree Munisuvratnatha preserved in the State Museum, Bhopal, Top right – 12th century AD statue of Shri Neminatha at Tirumalai, Tamilnadu. Bottom left – Statue of Shri Parshwanatha preserved at the Victoria and Albert Museum, 6th – 7th Century, and Bottom right - Rock-cut sculpture of Mahāvīraa in Kalugumalai Jain Beds, 8th century AD.

The review of above description of scientific data revealing climate variation on the Earth and simultaneously occurred pre-historical religious and anthropological events in the light of Milankovitch cycle and Jain Kaal Chakra during the Paleolithic and Neolithic era (1-4 epoch of Awasarpani Kaal) suggest that the Śramana culture and hence the Jain religion has been existing since the human evolution with talent. This further indicates that in every Awasarpani and Utsarpani cycle the 24 tirthankars take birth and guide for the welfare of the human society as well as to follow and practice the ethics of Jainism so as to protect the Earth and Cosmic order.

7. Conclusion:

We studied the antiquity of Jainism in the perspective of anthropology, philosophy, religion, history, archaeology and science and found that the Jainism truly exists since the human evolution with talent and started understanding, following and practicing its ethics, which are related to the Earth and Cosmic order. Various perspectives endorse the birth of tirthankaras in the current Awasarpani cycle periodically, as well as propagation and

dissemination of Śramana culture, which kept the Jainism survive in spite of several attacks by invaders to demolish and destroy the Jainism literally, physically and psychologically. We found the Śramana culture not only a historic but well propagated over the globe since several thousands of years, and its signatures still exist in all the six continents of the Earth. However, currently Jainism is at low- key because of significantly decreased population, threatening by other religions, encroachment of their sacred/ holy pilgrimage places and reducing renunciation and change of the agenda/ priorities of the monks etc. Nevertheless, in view of current global issues and challenges the Jainism is likely to be a dominant religion in near future.

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About the Author:



Prof. (Dr.) Rajmal Jain is an internationally acclaimed space scientist worked at Physical Research Laboratory, Dept. of Space. He is one of the founders of Udaipur Solar Observatory in Udaipur. He guided 6 Ph.D students and many project fellows. He is

Principal Investigator of the Soar X-ray Spectrometer (SOXS) mission, the first space borne solar astronomy experiment of Indian. He discovered iron and nickel in the Solar Corona and in its recognition he is honored with Fellowship of Royal Astronomical Society (FRAS). Dr. Jain participated in instrumentation for Chandrayaan-2, Mars and Aditya missions. He received "Lifetime Achievement Award" from Govt. of Madhya Pradesh. He is the first Asian to receive International Young Astronomer Award. Dr. Jain visited more than 100 countries and represented India at various platforms. He received the SAARC countries Resource Person Award in 1996 from Ministry Human Resourced, Govt. of India. He discovered the Chandraprabhu Temple in the Tigray region of Ethiopia and signatures of Nigantha tradition in South America. He received many National and International awards, honors and citations including "Saraswati Putra" and "Jain Ratna" by Acharyashree Kanaknandiji and Muni Tarunsagarji Gurudev respectively. Currently he is an Outstanding Professor at IPS Academy, Indore.

> Printer: **Basant Jain, Saraswati Printing Industries** Chandi Ki Taksal, Jaipur, Mob.: 8114417253 Email: jainbasant02@gmail.com