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## **IS PRE-ARYAN INVASION, IF ANY; DATES BACK 11000 YEARS IN VEDIC INDIA: EVIDENCES & EXPLORATIONS**





SandHI THE SCIENCE & HERITAGE INITIATIVE INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

(A mega-initiative sponsored by the MHRD, Government of India)



## **SWASTIKA IS PRE-ARYAN INVASION, IF ANY; DATES BACK 11000 YEARS IN VEDIC INDIA: EVIDENCES & EXPLORATIONS**



SandHI THE SCIENCE & HERITAGE INITIATIVE INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

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## **6** The world's rotation seen from one or other of the poles **9**

## R. Guenon Penguin Dictionary of Symbols

The celestial position of the Seven Sages (Ursa Majoris or the Great Bear) represents a Swastika like motion which is eternally revolving with an objective of establishing complete truth, consciousness and beatitude around the highest and fixed heaven - "Tad Vishnu param padam" (Polaris or The Dhruvapadam) [Rig Veda: 10.82.1-2; Srimad Bhagabatam: 5.22.17].



The revolution (dynamics) around the highest fixed point (statics) has been conceived in four cardinal guadrants. It means - a) the involution of the universal manifest of the Vast (the macrocosm) from That infinite backdrop; b) the further evolution and extension (path of Tantra) of the individual consciousness within it (the microcosm) which is Aristonemy; c) the cyclic return of the individual to That vast (the path of Yoga), which is Indra; and d) the re-establishment, fostering (Pusha) and complete resurrection of the Individual as The Lord of the Vast (Vrihaspati) and beyond as That infinite for regenerating the next cycle or Kalpa. Thus the Soul becomes triple founded - the individual, the universal and the Absolute transcendental.

The idea takes the form of the cyclic iteration of the four seasons - Autumn, Winter, Spring and Summer. The universal pattern as coded in the Vedic mantras and decoded as realisation (dharana) by the Mantradrasta or the Rishis is Swastika.



अः भद्रं कर्णेभिः शणयाम देवाः ॥ भद्रं पश्येमाक्षभिर्यजत्राः ॥ स्थिरैरङ्गैस्तृष्टवा<sup>ः</sup>सस्तनुभिः ॥ व्यशेम देवहितं यदायुः ॥ स्वस्ति न इन्द्रो वद्वश्रवाः ॥ स्वस्ति नः प्रषा विश्ववेदाः ॥ स्वस्ति नस्ताक्ष्यों अरिष्टनेमिः ॥ स्वस्ति नो बद्रस्पतिर्दधात ॥ ॐ प्रान्तिः ज्ञान्तिः ज्ञान्तिः ॥



The Rig Veda: 1.89.6 Jaora, Madhya Pradesl

Both the Ukraine Mezine Swastika and the Indian Jaora Swastika preceding the Indus Valley Swastika perhaps have had originated from the aforesaid celestial pattern of Vedic epistemology (see middle)

Returning is the motion of the Tao and going far means returning. The idea is that all developments in nature, those in the physical world as well as those of human situations, show cyclic patterns of coming and going, of expansion and contraction.

The third summer internship under SandHI Mega-exploratory Project was held in May 2016 at IIT Kharagpur for six weeks. The response for the internship was overwhelming and eventually, around 50 interns joined the program in two phases. In the initial days a general discussion was undertaken about the findings observed under various sub-heads of SandHI out of the extensive work done in the previous two internships. It was fruitful in orienting the interns for what was coming their way in this year's internship – 'The Swastika'.

To start with the quest for- 'The Swastika', the interns were clustered in nine groups. Each group was assigned a longitudinal band on the world map. The groups were made homogeneous with interns from undergraduate and postgraduate courses and one research scholar mentor. The group of countries falling under the longitudinal band was assigned to each of the group. Interns, individually as well as a group, had started to research upon a range of one of 9 topics in their assigned pool of countries. All the major findings came through works of renowned scientists, archeologists, philosophers, and various eminent scholars. One such important referred publication was by Thomas Wilson on 'Swastika', from the Smithsonian Foundation, which ultimately supported the baseline work. Though Thomas Wilson's publication only presented various evidences and manifestations of Swastika throughout the world, this was one of the first research dealt with a single symbol which recurred across the globe.

In congruence of the evidences, interns were also keen on finding and interpreting the deep rooted ecological and etymological relevance of Swastika in their region of research. It was soon evident that Swastika not only was present in almost the ancient civilizations but has had an epistemological importance throughout it various applications by the civilizations. Out of the common findings, various manifestations of Swastika were present in – sacred ritualistic practices, offering jars, coins, site planning, designs of temple complexes, etc.

A matrix tool – 'SandHI Matrix' was used for interpretation and cross linking the heritage findings with the scientific connotations observed during the research. Most of the findings were related to an interpretive state of power through use of Swastika on coins, buildings weapons, and tools. While amongst others were, the use of swastika in perhaps an interpretation of

– Lao Tzu

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# Preface

cosmological connect of man to the higher universality of the cosmos and consciousness. Such interpretations were also evident in René Guénon's *Symbolism of the Cross* which there by strengthened the research.

The present Monograph is a sequel to the first book 'Exploring the pattern and ideogram of Swastika – a universal principle of sustainability' published on the day of inauguration of the exhibition at ICCR, Kolkata. The Monograph substantiates the most important evidence: that the imagery of Swastika in India, which is over 11000 years old and in particular evident in the ancient Rock Art forms of the Malwa plateau, Madhya Pradesh. A first set of panels covering emphasizing the scientific construct of Swastika and a subsequent set of 18 panels presenting a 9 phase global exploration based on the semantics and semiotics of Swastika are then sequentially presented. Finally, a pictorial coverage of the exhibition on Swastika, organized in collaboration with the Indian Council for cultural Relations (ICCR), Kolkata and at ICCR Kolkata is delineated.

The present compendium is a wonderful work of a team of brilliant minds which was exhibited at Indian Council for Cultural Relations, Kolkata. They are a collation of summer interns from IIT Kharagpur, IIT Roorkee, NIT Rourkela, NIT Calicut, SPA Bhopal, SPA Delhi, CEPT Ahmedabad, Jadavpur University and other premium national institutes. The book presents nine explorations, which are the works of young vibrant minds fresh, open, unadulterated and free. Each piece had been presented in a format differing slightly from the other, keeping the spirit of an open ended exploration on perhaps the most ancient and interconnected of all symbols that have interconnected the global culture, religions, sciences and civilization as a whole. We call it Swastika.

# Swastika is **Pre-Aryan Invasion**, if any, and dates back **11000 years: Evidences and** explorations

of growth, evolution and cities of New York and even more. The present order.

## Introduction

The history of humankind may not often follow a linear pattern progress. There can be phases, surges and patterns that are repetitive. The pattern can even represent mere shadows of a distant but a stronger original past. Often we say. 'History repeats itself. For instance, the defeat of Napoleon and the defeat of Nazi Germany in the face of an aggressive Russian winter can be cited as examples having short span recurrences. The grid-iron patterns recurrent in ancient Indus Valley city of Mohenjo-Daro (3000 BCE); later in Miletus of Asiatic Greece (1200 BCE): and three thousand years later in the Philadelphia (1900 AD) in the USA can be cited as instances having kind of middle order time span cycles. And there can be another strand of example, which may intersperse 10000 years of recurrent cycles or deliberation is of the third

## The basics

Dating back to 10,000 BCE, the spectacular prehistoric art in remote caves across Central India offers a glimpse of Asia's oldest stock of ancient and aboriginal peoples. French archaeologist Dr. Jean Clottes of the Houston Museum of Natural Science and a world-renowned researcher of Global and Indian cave art have paved the first treads to discover some of their hidden meanings (1a). Dr. Jean Clottes has presented the facts as part of the Bradshaw Foundation India Rock Art Archive. He is also the first to admit that 'Indian rock art is not as well-known abroad as it should be', despite the fact that the country contains a vast concentration of ancient rock paintings. His research along with other Indian archaeologists highlight both the sheer number of rock art sites as well as the quality and diversity of the prehistoric rock art found in the shelters. The research proves that the preservation of ancient Indian art through awareness and appreciation is clearly essential (1b).

It is known now that early man started engraving, painting and drawing on the walls some 40000 years ago B. P. (Before Present) during the Upper Palaeolithic era. The cultural traits continued and matured even into the following early Mesolithic Age, which is 12,000 to 10000 B.P. (1c). In Indian rock art one can see spiritual movements or orders of triangles, circles and Suns and Moons. The symbolism of 'Shakti' or the concept of cosmic divinity as a Creatrix and allegorized as the MOTHER is also found in the Palaeolithic shelters over 10000 year old. Moreover, the cosmic context has been explained in a few Jaora rock arts, where fish, lotus stems, flying birds etc are seen (1c). In Bhimbhetka and other places like Edakkal Caves, there are evidences of quadrangles and Swastika (see Figure 1).

Particularly, the aforesaid patterns are evident is the growth and maturity of art in the Upper Palaeolithic age (40,000-10,000 years ago) (2). A great spread of evidences is found namely:





Figure 1: Patterns of quadrangles and crosses (framework of circles) in Bhimbhetka, Central India (see below) and in Edakkal Caves, Kerala (see above)

- 1. Remnants of rock paintings have been found on the walls of caves situated in several districts of Madhya Pradesh, Uttar Pradesh, Andhra Pradesh, Telangana, Karnataka, Bihar and Uttarakhand.
- 2. Early rock paintings are Lakhudiyar in Uttarakhand, Kupgallu in Telangana, Piklihal and Tekkalkotta in Karnataka, Bhimbetka, Jaora and Jogimara in Madhya Pradesh and many others.

Often scholars have divided these paintings into three categories: Man, Animal and Geometric symbols. A certain of geometric symbols are even cosmocentric. A few of that order are evident in Jaora, Malwa Plateau, Madhya Predesh, India.

There are also evidences of ancient art in Kulgaon, which is about 11 km from Kanker, this rock art site is located 4 km southeast of Kulgaon village on the Jagdalpur Road (NH 43). The paintings belong to Upper Palaeolithic period (3). Particularly, at Karmagarh, in about 30 km north of Raigarh the rock paintings at Karmagarh are 325 in number. Here we have geometric designs and multicoloured figures of humans and animals (3)

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An important recurrent feature is the quadrant circumscribed figures that is often described as inscriptions of cycles of life and death (4). These are symbols of seeds and cycles, which are chthonian and representative of vegetation deity found from India to Sumeria and Anatolia a few thousand years prior to Christianity. The cult of Adonis, Tammuz, Sabazius, Demeter in the Ancient Mediterranean and that of the Upanishadic ideas of cosmic seeds (vija) and revelation belong to this category (see Figure 3). An important quotation is from the Mundaka (1.1.8) and the Vrihadaranvaka Upanishads (1.4.3), where the Absolute reality, though infinite and undivided is conceived as a dicotyledonous seed (vija). In the Mundaka Upanishad particularly, the Absolute infinite called Brahman (based on root Etymon: *Bringhan* – meaning the full trumpet of an elephant after it is completely intoxicated having eaten plenty from the Forest of fruits and its juice), expands through Tapasya (spiritual contemplation and sacrifice) to be the Cosmos itself, as the Corn exudes as the ear of the corn: Tapasa Chiyate Brahman (1.1.8). Such classification and explanation of the Cosmos are Chthonian in origin that links both heaven and the earth.

## The Greater Narmada-Tapti belt: Central India

In a lesser known 1935 Yale–Cambridge expedition covering the northern and central Indian plains, geologist Helmut de Terra, Patterson and Pierre Teilhard de Chardin, confirmed assumptions of the existence of ancient Indian Palaeolithic civilisations in Kashmir and the Salt Range Valley (5a) extending up to the Narmada Valley and the central Indian plateau. The ancient eastern Indus Valley is just contiguous to the western borders of the large zone that the Yale-Cambridhe explorers had earmarked. Much of ancient Indian art and its hidden semantics and semiotics can be one of them (6). (see Figure 3).

The Salt Range is a hill system in the Punjab province of Pakistan, deriving its name from its extensive deposits of rock salt. The range extends from the Jhelum River to the Indus, across the northern portion of the Punjab province and the lower Narmada valley. In India, largest accumulation of sites has been reported from quartzite regions, on mountains comprised of sedimentary rocks. The belt primarily also refers to the zones contiguous to the upper Vindhya, Satpura and Aravalli ranges in central India. Considerable numbers of Rock Art sites are also present in the granite hills of Southern Deccan in river Krishna-Tungabhadra doab. Vindhyan ranges of mountains are found in the states of Rajasthan, Madhya Pradesh, and Uttar Pradesh. It constitutes all the land that lies in between river Narmada in the south and the Ganga Yamuna plains in north. Bhimbetka, Jaora, Kathotia, Firengi, Kharwai, Gupha maser, Lakhajoar, Adamgarh, and Panchmarhi are the names of important rock art sites belonging to this interconnected region region (5b) (5c).

## **Evolution of the first cosmic** map (1)

In this region, of many examples that have been cited before, a startling example representing something higher, perhaps a cosmological map of prehistoric date can be specially cited. In here the ethnographic evidence has been used to interpret the decoration of a prehistoric artefact as a cosmological representation.





**Figure 2:** Patterns of complex quadrangles and crosses (framework of circles) in Kulgaon



**Figure 3:** Patterns of complex encircled seeds (see on top); and quadrangles (see right border) in Ancient Indian art; traditions of sprouts continued with the Indus Valley (the Double unicorn seal and the sprouts of the Ficus Religiousia or Aswattha tree)

A single rock painting from India has been discovered by archaeologists portraying the late Palaeolithic or earliest Mesolithic conception of the cosmos (refer Figure 4). The painting comes from a rock shelter at Jaora, on the Malwa Plateau (Madhya Pradesh). The three parts of the cosmos are represented. The top band of the design is easily recognized as portraying, in naturalistic style, a watery environment. Additionally,

- 1. A shoal of fish associated with the netherworld swims
- 2. Mesolithic Cosmological Map from India

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The size of the original has been surveyed to be 44 cm x 75 cm.

After Erwin Neumayer (1983), who first pointed out the great abstraction of Jaora dating from 10000 BCE, other explanations have also been sought. Also in naturalistic style are the five birds in flight outside the main design, said to represent the air, or the upper world. In the rest of the picture, the signs are more stylized. In the right-hand and lower borders is the line of location of water birds, perhaps Swans. An empty circle or disk, presumably the sun, marks the centre of the composition. From it, rays-zigzag lines-run to the lower border. Neumayer says that four intricately pattered bands filling the rest of the panel have been suggested as representing the earth. As a whole, the picture, as Neumayer says, "can be understood as a symbolic depiction of the earliest upper Palaeolithic to earliest Mesolithic cosmos". Speaking of maps, another article in the New York Times says identifies it as the oldest cartographic image of the world comes from Jaora near Bhopal, India (6).

## **Evolution of Cosmic pattern (2)**

According to rock art experts, the image drawn over 10000 years back represents the heaven and the earth, and the interconnections between them.

The general explanation on the Jaora upper Palaeolitic painting shows a 'square' (actually a rectangle), divided into several stripes decorated with a variety of design patterns. There is an empty circle is in the centre. On the upper periphery of the square, 'fish' are shown between 'reeds' or 'lotus stems'. Along two other sides are 'water birds', besides the rectangle are five 'flying birds'.

The geometric design within the rectangle does not seem to represent fields of agriculturists because this kind of design is also applied to animal bodies and is used independently. Neumayer (1983) assigns the rock art of this style to the

Mesolithic period as only activities of hunters and gatherers are shown in contrast to pictures of other rock art styles. Another study (7) says that the transition of Upper Palaeolithic to Mesolithic, the earliest Mesolithic man was a lover of art, evident from the paintings in several thousand rock shelters in the Vindhyan sandstone hills in central India. In this context, the study (7) refers to this piece of very interesting and abstract painting has been found in a rock shelter at Jaora (MP) and the researchers also interpret a cosmology of the world consisting of air, earth and fire (7). In this context, it must be known that similar to Bhimbetka and this piece in Jaora, many rock-paintings in other parts of India, too, are evident. Around 55 rock-shelters discovered from the districts of Sundargarh and Sambalpur in Orissa. However, the paintings over there of geometrical nature besides the paintings of people and animals are quite rare. In the 'Yezuthu rockshelter' in Kerala, display paintings of animals but not of humans.

However, a special mention should be made of 'rock-painting' of Jaora caves (M.P.). From this painting, we can understand the concept of the earliest Mesolithic or Upper Palaeolithic Indian people about the creation and nature of universe. Here we find a whole world comprising of animal-human world along with wind, water and other elements of creation (8). It is perhaps the most interesting combination of antiquity in India. But there are more. In this 44 cm x 75 cm Jaora original Template, there are hidden implication of a cosmic hierarchy and linkages of elements between the hierarchies. Additionally there is also a very special feature evident in this piece of art that leads to cosmic explanations of the highest order, equivalent to the Vedas.

# Interpretations of a cosmic hierarchy and cycles (5; 9)

Throughout the world, there are experiences of a realm above the mundane and the material, which are often rationalized as the floating and flying beings that have pervaded all ancient forms of less understood, often misinterpreted or ridiculed literature. In some of them, like the Vedas and the Persian scriptures of the Magi, they are depicted in the form of archangels, cherubim, the Ahura-mazda kind of figurines. From ancient Persia to the Garuda of India, and Indonesia; the Birdman imagery and legends around the imagery are also found in Polynesia and Meso-America.





Figure 5: Divine Shaman or Flying Bird Man (Ahura-Mazda or Atharvan magi of Persia (see left); Garuda from India to Indonesia (see middle); and Images in Easter Island (see right)

Shamanistic flight is widely reported as their underground journeys and often overseas journeys also. Human like figures with wings and flying, are seen in rock art globally quite similar to the above depiction. The themes that have been depicted in the Jaora painting is also reflected in a San rock painting, where fishes and birds are seen together, and as per the San interpretation these are figures symbolizing a shaman's journey from underwater to the sky during trance. The shamanistic body of faith might help us to understand the Jaora painting in a completely different manner and level of interpretations. Closest to the shamanistic interpretation are other ancient religions like BON of Tibet, Shintoism in Japan and mainly, the Vedic literature of India.

Figure 4: Symbolic art from a rock shelter at Jaora, on the Malwa Plateau (Madhya Pradesh)

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# **Comparative Higher and Re-cognitive interpretations: Mezine-Ukranine and the Jaora form in India**



Template 1: Comparative engraving of Swastika as Bird-spirits in the Form available in Ukraine, Mezine form and in the Cosmological Art form in Madhya Pradesh, India



Template 2: The Hierarchy of the Cosmos as evident in the Jaora Art Abstraction

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The image suggests the architecture/ the plan of the universe (macrocosm) and the anthropomorphic individual (microcosm). It is in the form of an imagery of waxed HONEYCOMB Frame (HCF), representative of the Kumbha(container) of divine elixir exuding from uppermostheavens of the Aditya or Surja mandala. Such parables have been used by Vedic Sages and esoteric Sufi saints alike as the Soma on the drops of Amrita (The flow of Moon stream).

Having penetrated Zone B, the higher or divine creation is manifested. It is shown in the form of sprouts/ first trees representing the supreme Supramental stratum Zone SM. The leaves/ foliage/ for the supreme level show the establishment of the Tree of Wisdom or Kalpa tau. (The Tree of cosmic involution and evolution). The wisdom of Madhu-Vidya in Vohad-Aranyak or pancha-Amrita Vidya in Chandoggya Upanishad endorses the architecture of the cosmos.Madhu or Honey is the flow of interconnectedness, the jar of Madhu is the cosmos; and the bees are the sages.

Zone- SM

Zone-B / X

Zone - Lower C

S

Zone- A

It is the transition zone of the crown or infinity signified by the undifferentiated ocean of super consciousness. The great Yogis or sages are moving here shown through the allegory of fishes. When the two halves of Zone C marge as one, the infinite expanse of Zone Bris emergent.

### Zone C lower and Zone C upper

There are 5 + 1 (six) evolving planes of transition in the lower Zone C (see dotted red box); and 5 +1 (six) higher planes in upper zone C (see dotted blue box). The whole structure is encased within a honeycomb of the universe, which is a significant allegory of the Universe evident in the Rig Veda and the Chandogyya Upanishad, in particular. The souls of wisdom or Sages are sitting birds. (Swans of S) or Flying Birds/ Bees (B). Zone C, lower and upper represents earth and heavens or the prithviand Dyvastratum of creation, respectively.

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LOGIC of Gamma or Tetra-gamma (Swastika bands)

The linear evolution of the three ascending ribbons (zig zag 45 degree pattern) in Zone C lower converge to higher of cyclic evolution in Zone C upper. Here the Swastika bands and four way cyclic turnings ae formed and established. The precise rendition of Honeycombs, spectacular hexagonal patterns in this earliest Mesolithic or late Palaeolithic Jaoraart speak of a very high understanding of the cosmos and its relationship between the individual, the painter. The relationship forwards the cosmic framework of evolution and involution (Agamma and Nigama of Indian Metaphysical epistemology). Each gamma (or one wing of the 4 in a Swastika) is laid out with precision and purpose.

The most amazing feature is location of the FULL CIRCLE (C) that is transiting both the upper divine and the lower earthly halves of existence in the Collective Universal and the individual. It is the Chaltya Purusha or the ever upward looking divine spark potential in all of individual existence and a being that is transplanted from above (Nigamma or Kriva shakti); ready to bloom and become / take the whole creation upward (Agamma or Mahati). All architectonic features, starting from the descriptions of the Chaitya Purusha as the Purushotamma of the Upanishads; Gita ,BhagabataPurana; and all later Buddhist literature to the very works of Swami Vivekananda and Sri Aurobindo in the last century are only a continuous endorsement of this ancient yet sustained form of wisdom, as portrayed in the Integral piece of Art of Yoga and Tantra in Jaora, Madhya Pradesh, India.

Template 3: Interpretations of the Hierarchy of the Cosmos as evident in the Jaora Art Abstraction

(Please read bottom-up: Zone C to Zone A)

It is known to scholars around the world that one of the earliest Swastika known has been found in Mezine. Ukraine. It is carved on late Palaeolithic figurine of mammoth ivory, being dated as early as about 10,000 BCE. Among the earliest cultures utilizing swastika is the Old Europe, Neolithic Danube Valley Civilization, Cucuteni-Trypillian and Vinca. However, the current research by the Iconographic exploration team, SandHI, IIT Kharagpur unfolds a parallel evidence and perhaps, a more matured form extractable from late Palaeolithicearly Mesolithic form in the Jaora, Madhya Pradesh, India belong to 10000 BCE or even earlier (see Template 1)

The image suggests the architecture or the complete plan of the universe (what we call the macrocosm) and the anthropomorphic individual (what is termed as the microcosm). Ancient Milesian Philosophers and later ones, from Thales to Plato; from Protogoras to Hippocrates and Pythagoras have had explained the cosmos and evolution within the cosmos as the twin principles of the Macrocosm and the Microcosm. In India, the philosophy of Kapila, and particularly that of the Nath Yogins like Matsvendranath and Gorakshanath have always resorted to this kind of an interlinked and complementary explanation. The more common terms are the Brahmanda and the pinda. It is believed and realized by esoteric spiritual aspirants that the human body is the measure of the Universe. It is like a micro or nanocircuit on which the cosmic connections are grafted. What is not grafted here is also not there in the cosmos, says the ancient wisdom. The recent works on the Anthropic Principle and a view of the universe that is anthropo-centric or based on the level of rational human consciousness pervades all modern quantum and relativistic sciences. Works by Stephen Hawking, David Bohm, Geoffrey Chew, Fritjof Capra and many other often are increasingly accepting the oriental and consciousness-driven interpretation of the universe. The consciousness driven interpretation is precisely the basis of the abstraction evident in this particular Jaora art form.

## **The Imagery (part 1)**

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The Jaora art form is in the form of an imagery of waxed HONEYCOMB Frame (HCF). The HCF is representative of the *Kumbha* (container), the pitcher or container of the divine elixir exuding from uppermost heavens or the Aditya or Surja mandala. Such parables have been used by Vedic Sages and esoteric Sufi saints alike as the Soma or the drops of Amrita. It is known as the flow of the Moon stream, available only to the higher aspirant following the path of simplicity, purity and chastity (known as *Brahmacharya*).

The comparative interpretation and the juxtaposition of the two Swastika forms evident in the Mezine-Ukraine bird form and the Jaora Form is forwarded by Template 1.Template 2 forwards the framework of HCF which has striking parallels to the portraits of Vedic Cosmogony as per a hierarchy of cosmic elixir known as Madhu or Soma.

The detail descriptions are available in the Vedas, particularly in the Rig Veda, which offer the story of the twin spirits, the cosmic cross-currents or alternations of day and night maintaining and sustaining the cycles of renewing good health in the Cosmos.

As a parable used by the Vedic Sages, the twin cross-currents are the Asvinis, the two riders of the horse. The horse and its galloping are the twin Vedic parable of prana, the elen vitale of the aspirant, the sadhaka. The Asvinis are the carriers of the two-way truth and the two-way ladder between the heavens or the upper world and the netherworld, the patale. The Asvinis, both intrinsically and extrinsically have passed that great reservoir of knowledge-realization to a particular lineage of Sages, called the Atharvans, and particularly, to one of them from the lineage, known as Dadhichi or Dadhvang. The first Canto or Mandala of the Rig Veda has observation on this. The wisdom of Amrita or Madhu is known as MadhuVidva.

This particular knowledge in the later Vedantic or Upanishadic age has been expressed as two branches:

- As a part of the White cluster (Sukla) Yadjur Veda, maturing in the mantras of the Vrihad-Aranvak Upanishad. It is called the Vajsenahi branch.
- As a part of the Solar cluster (Sama Vedic) maturing to another form in the ancient Chandogya Upanishad, where the cosmos is seen as a condensate of Great Sages and that condensate is conceived as the Solar agglomeration in a HoneyComb Form exuding the flow of nectar or honey.

To a large extent, the lineage of the *Atharvans* were shared by the two Ancient lands, Airyan (Iran) and Aryabarta (India). Prophet Zoroaster (Zarathusthra) was himself an Atharvan and the land west of Iran in the ancient times was known as the land of the ancient Fire (Athar-bahram) Priests, which was also the Land of the Atharbaidans or Ajarbaijan, today. It is fairly possible, the knowledge of the ancient pure fire and elixir of life was further transmitted westbound, to what may be Iberia (Georgia), just east of Ukraine (Sen; 2008; 2010)

In the Vedas, the legend of the Atharvans is found in the story of sage 'Dadhyang' (or 'Aswashira' Dadhichi) and many others, who forward the message of a beings.

universal sacrifice and the consequential all-penetrating and cross-cutting knowledge of a 'Vaira-sattvic' standpoint and a complementary immortalizing principle called 'Madhu Vidva' (Rig Veda: 1.80.16; 1.83.5; 1.84.13). The story has been a constant source of similar inspirations found later. In Buddhism it was transformed to the ideal of an universal pledge of the 'Bodhisattva' and a standpoint of cruciform called the Vaira-asana. In Christianity, the allegory of the crosscutting theme is similarly seen through Christ's crucifix where his death as an individual is the death of the cosmos: and his resurrection is the divinization of all

## The Imagery (part 2)

Template 3 furnishes a detailed explanation of HCF. The explanation is forwarded in three zones, A, B and C, signifying the highest, the middle and the lower orders of the cosmos. In the Vedas, it is known as Dyava, Antariskha and Prithvi. The Dyava constitutes the solar and galactic world of the celestial, the highest heavens of the soothsaving of the cosmic truth, the vast and the breadth of expanse called the Satvam Ritam Brihat. Here Soma or Madhu is in the form of a higher elixir. The Middle world, the Antariskha is the link world, the world of the clouds, the midheavens and source of fecundity and fertility, as rains, the intermediate Soma or Madhu. In the lower world, the Prithvi, it stands for material fertility and the source of nutrition which is in the form of the vegetation, the produce, the corns, which have a chthonian (the nether or *patale*) origin. The Hierarchy has a name called the Pancha-Agni Vidva. The ancient knowledge is comparable to what we call bio-ecological balances and the science of Life Cycle today.

The great symbiotic knowledge as coded in the earliest of Vedas and Upanishads is called Madhu-Vidya. Madhu-Vidya remains as the philosophy and science of the complete correspondence and the hierarchy; and therefore it is the epitome of complete religion of the human soul. In the earliest documentation of spirituality. the Rig Veda, we find a note bringing forward the cosmic magnanimity and the universal foundation that wisdom:

> Madhu-vata ritavete, madhu exaranti sindhaba, Maddvi nor santoshadi. Madhu naktamutosaso, madhumat parhivang raja. Maddvi-r gavo vanatu na. Om madhu! Om madhu! Om madhu!

(Seer Gautama, Rig Veda (RV), Mandala one, sukta 90:7-8)

'Vayu, the all-pervading principle of life is the Madhu, the perpetual correspondence between the vast and the small; the rivers of life flowing within and without signify that movement, which is the Madhu. Let the medications derived from natural resources be the Madhu, that correspondence, the sustainable harmony between the two; Let Day and night for us be in harmony and be a framework of the perfect correspondence; Let all material wealth of this universe be in harmony reflect that correspondence; Let all space, within and without, as we define, reveal a universal and sustainable accommodation of that harmony and that correspondence, which is Madhu'.

## **The Hierarchy and Abstraction**

The whole ambit of the three worlds, their interconnections and rapture on the one hand, known as Akhanda Dyava-prithvi in the Vedas; or their separation and estrangement, leading to separation of discrete or granular matter and vast antimatter or spirit are the constitutions of an understanding of the material and the spiritual world. It is evident from this abstract Jaora Art form, that the artist was fully aware of these principles, at least in a conceptual and seed form proving that the cosmological origins of the Vedic Ontology and Hermeneutics having an Upper Palaeolithic origin, i.e., older than 10,000 BCE. It may one of the most findings of the present Monograph.

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## **The Cosmic Hierarchy**

The framework provides an understanding of the reasons behind this dissipation and disintegration and also the return to scale and the cycles/ ways of reintegration. The framework is based on a polarity of the three worlds described in the Vedas, which are 1) Dvava (the Divine realm or heaven); 2) Prithvi (the material realm); and 3) Antariksha (the inner linkage between the two denoting an internal mental and vital world of any individual). Figure 6 presents the conceptual framework in two respects:

- First, in the framework we see a forth one, a highest transcendental realm in addition to the three levels or realms.
- Second, we see the node and the zone of activity that will establish possible linkages between the two, via the Antariksha or the inner world.

## **PARABLE OF THE HONEYCOMB**



The Sun is described as the honeycomb laden with glowing light of honey. **The rising and setting cycles of the sun** is likened to human's cyclic state of clarity and confusion, while the spiritual state of knowing Upanishadic insight of Brahman is described by Chandogya Upanishad as being one with Sun, a state of permanent day of perfect knowledge, the day which knows no night.

> On the Chandogya Upanishad Paul Deussen. Sixty Upanishads of the Veda. Volume 1. Motilal Banarsidass

The Chandogya Upanishad presents the Madhu Vidya (honey knowledge) in first eleven volumes of the third chapter. Sun is praised as source of all light and life, and stated as worthy of meditation in a symbolic representation of Sun as "honey" of all Vedas.

> On the Chandogya Upanishad Robert Hume, Chandogya Upanishad 3.1.1 - 3.11.1, Oxford University Press, pages 203-207

The simile of "honey" is extensively developed, with Vedas, the Itihasa and mythological stories, and the Upanishads are described as flowers. The Rig hymns, the Yajur maxims, the Sama songs, the Atharva verses and deeper, secret doctrines of Upanishads (Sadhya) are represented as the vehicles of rasa (nectar) that is the bees. The nectar itself is described as "essence of knowledge, strength, vigor, health, renown, splendor".

> Max Muller, Chandogya Upanishad 3.1.1 - 3.11.5, The Upanishads. Part I. Oxford University Press, pages 38-44

## THE CYCLE OF COSMIC SWASTIKA



पुरुषार्थशून्यानां गुणानां प्रतिप्रसवः कैवल्यं स्वरूपप्रतिष्ठा वा चितिशक्तेरिति ॥३३॥

33. The resolution in the inverse order of the qualities, bereft of any motive of action for the Purusha, is Kaivalya, or it is the establishment of the power of knowledge in its own nature.

Nature's task is done, this unselfish task which our sweet nurse, nature, had imposed upon herself. She gently took the self-forgetting soul by the hand, as it were, and showed him all the experiences in the universe, all manifestations, bringing him higher and higher through various bodies, till his lost glory came back, and he remembered his own nature (Clockwise evolution). Then the kind mother went back the same way she came, for others who also have lost their way in the trackless desert of life (Anti-clockwise involution). And thus is she working, without beginning and without end. And thus through pleasure and pain, through good and evil, the infinite river of souls is flowing into the ocean of perfection, of self-realisation.

Glory unto those who have realised their own nature; May their blessing be on us all!

Translations by Swami Vivekananda Raj Yoga Patanjali Yoga Aphorisms (Independence: Kaivalya pada)

O Fosterer, O sole Seer, O Ordainer, O illumining Sun, O power of the Father of creatures, marshal thy rays, draw together thy light; the Lustre which is thy most blessed form of all, that in Thee I behold. The Purusha there and there, He am I.

> Translations by Sri Aurobindo Isha upanishad: 16



The lower node (or pole) is the place of the individual self (the *Atman*) – located within our corporate existence - here. The transcendental realm - there, is the seat of the other side - the other pole. The abstraction is evident in the Jaora Art form.

At the top is the transcendental realm, which the supreme seat of infinity on whose coils the image of Vishnu is laid. The descending arrows from that realm are the descending rays (Uru-chrome or Uruguav Vishnu) of the supreme. In the Vedas they are figuratively represented as the eternal shining 'Ray-Cows' (Go-charam)providers of vision. The transcendental realm is param-padam (RV: 1.154.6) - the celestial abode of undifferentiated ray-light or Vishnu.

higher pole.

## [Aja-ekapadam]

This is the local pole.

This is also called *Aia – eka-padam* [which is symbolic of the Capricorn, as *Aia* literally means the goat and figuratively means the non-born or one without death but hidden within matter and therefore subjected to the veils of mortality i.e. changes (mutation)]. This Aja - eka-padam is an important clue to all our later understanding in this book. When this material world is detached from the spiritual, then it is valueless and damaging. Then our earthly plane, in the absence of values, is also called the differentiated Asura loka or the place of carnal, having increasingly hedonistic and over-sensual possibilities.

### The connections between the zone and the node: Antariksha (Rig Veda: 4.58.11) – The seat of values

It is through the inner realm called the *antariksha*, the connection between the two is maintained or established. It is the link or value-added level. When the

### The Zone of transcendental Divine realm (Rig Veda: 1.154) [Tri-padam/param-padam]

The descending rays come from there and they compose the Dyava (the Divine realm or heaven) in the level below. The transcendental realm is the location of the supreme sages (Rishi loka) - in proximity of Vishnu. This is also called Akhanda or the undifferentiated loka. Next is Dyava, which is the location of Gods (Deva loka). This is also called Sura loka. It may be noted that the realm of Gods is only a trickle-down or a descending extension of that transcendental realm. That is the

## The node of the material realm (Rig Veda: 7.35.13)

On the other hand, the Prithvi is the realm of our very material existence, within which our self is hidden. The lost sun is that hidden self - the divinity within us

connections are established the ideal state is restored. The utopia is called akhanda dvava-prithvi or an integration of spirit and matter (RV: 1.185.all). This was the aim and objective of the Vedic Sages. In Natha Yoga, as we shall see later, it is called 'sama-rasa'. In reality, we are far, far away from that great ideal. As a result:

- Dvava is de-linked from the Prithvi.
- Spirit is de-linked from matter.
- Sura loka is de-linked from Asura loka
- Spiritual level is de-linked from the material level.

It is because of excessive materialism, the moral and the ethical refinements are not been established to invigorate the link level or the Antariksha. As a result linkages with the rays of the upper realm are lost. This is the parable of the lost cows and a movement of our ego drifting away from the teachers – the shepherds. They are called 'Go-pati' or 'Go-rakshak' (Sama Veda: 1.6.168). As a result the individual self is still hidden in matter. This is the parable of the lost sun -Martandya (RV: 10.72.all). It cannot penetrate the veils of bondages in the microcosm and resurge in full glory in the larger bounds of the macrocosm.

### The double intender in the framework [Agni and Soma]

The recovery of the lost ray-cows is a prelude to the recovery of the lost sun.

The recovery of the support from above (the descending triangle) is a prelude to the recovery of the lost sun from below (ascending triangle).

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The two are represented by the *Soma* (the principle of elixir or immortality) and Agni (the principle of tapasya – or will force) (Rig Veda: 1.93.all).

- Agni is that inner force the psychic fire of the initiated the Angira (RV:
- Soma is the divine stream of beatitude descending from above (and not the juice of any medical plant as mentioned by the Vedic sages - refer RV: 10.85.3)
- Agni is that trans-corporeal principle from above planted in our corporeal existence.
- Soma is the divine principle coming down to the corporeal and originating . from that transcendental realm of infinite light and power (Somena adityam balam, RV: 10.85.2).

The coupling of the two sets up the infinite scheme of the universe, which is also the unity of the two worlds. The two de-mystifies and brings to light the 'psychosomatic' conjugate of applied Vedic wisdom.

## Interpretation based on **Template 3**

### Zone Clower and Zone Cupper

There are 5 + 1 (six) evolving planes of transition in the lower Zone C (see dotted red box); and 5+1 (six) higher planes in upper zone C (see dotted **blue box**). The whole structure is encased within a honeycomb of the universe, which is a significant allegory of the Universe evident in the Rig Veda and the Chandogyva Upanishad, in particular. The souls of wisdom or Sages are sitting birds (Swans or S) or Flying Birds/Bees (B).

Zone C, lower and upper represents earth and heavens or the *Prithvi* and *Dyva* stratum of creation, respectively.

### Zone B

It is the transition zone of the crown or infinity signified by the undifferentiated ocean of super consciousness. The great Yogis or sages are moving here shown through the allegory of fishes. When the two halves of Zone C merge as one, the infinite expanse of Zone B is emergent.

### ZoneA

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Having penetrated Zone B, the higher or divine creation is manifested. It is shown in the form of sprouts/ first trees representing the supreme Supramental stratum Zone SM. The leaves/ foliage/ fruits in the supreme level show the establishment of the Tree of Wisdom or Kalpa-taru (The Tree of cosmic involution and evolution). The wisdom of Madhu-Vidya in Vrihad-Aranyak or pancha-Amrita Vidya in Chandoggya Upanishad endorses the architecture of the cosmos. Madhu or Honey is the flow of interconnectedness; the jar of Madhu is the cosmos; and the bees are the sages.

A complete framework is hidden in the Vedas and it is important for us to understand this framework to trace the nature of the abstraction. The framework is based on a polarity of the three worlds described in the Vedas, which are 1) Dyava (the Divine realm or heaven); 2) Prithvi (the material realm); and 3) Antariksha (the inner linkage between the two denoting an internal mental and vital world of any individual).

## LOGIC of Gamma or Tetragamma (Swastika bands) (see Figures 7 and 8)

The linear evolution of the three ascending ribbons (zig zag 45 degree pattern) in Zone C lower converge to higher of cyclic evolution in Zone C upper. Here the Swastika bands and four way cyclic turnings ae formed and established. These are not speculations. The precise rendition of Honeycombs, spectacular hexagonal patterns in this earliest Mesolithic or late Palaeolithic Jaora art speak of a very high understanding of the cosmos and its relationship between the individual, the painter. The relationship forwards the cosmic framework of evolution and involution (Agamma and Nigama of Indian Metaphysical epistemology). Each gamma (or one wing of the 4 in a Swastika) is laid out with precision and purpose.

The most amazing feature is location of the FULL CIRCLE (C) that is transiting both the upper divine and the lower earthly halves of existence in the Collective Universal and the individual. It is the Chaitya Purusha or the ever upward looking divine spark potential in all of individual existence and a being that is transplanted from above (*Nigamma or Kriya-shakti*); ready to bloom and become / take the whole creation upward (Agamma or Mahati). All architectonic features, starting from the descriptions of the *Chaitya Purusha* as the Purushotamma of the Upanishads; Gita, Bhagabata Purana; and all later Buddhist literature to the very works of Swami Vivekananda and Sri Aurobindo in the last century are only a continuous endorsement of this ancient vet sustained form of wisdom, as portrayed in the Integral piece of Art of Yoga and Tantra in Jaora, Madhya Pradesh, India. It evolution from India to the rest of the world remains sustained and partly transformed.

Figures 7, 8 and 9 give a storyline and a pictorial depiction of the twin-half torque, the gamma and its quadrangular form, the Tetragrammaton, and fnally, a full matured form, the Swastika. Figure 9 particularly depicts the evolution of gammas (the movements or half torques). Words like Agamma (Evolution) and Nigamma (Involution) in Vedic epistemology originate from here. The convergence or marriage is Gamos (representing words like Polygamy or monogamy). In Figure 9, the journey from level 1 to level 6 is the evolution of the three gunas, from matter-ignorance to rapid movements and activity noted by first the Tamasik and then by the Rajasik levels, respectively. With higher evolution, instinct and reason are slowly replaced by inspiration (spire/spiral). The Aspirant develops-encultures and unfolds advanced intrinsic and innate properties of experiencing and absorbing the elements of the universe. It is at this level of Sattva guna, whose maturity helps the aspirant penetrates level 6. Then the imagery of the cosmos is no more one of chaos and confusion, but a fusion of interconnectedness, fundamental unity and purpose. That fusion is the idea of divinity that is all-pervading both within and without and circling from vast to small and returning. At the core of that divinity, the Sun, the Circle in the center, the Chaitya, the sentient purusha evolving to become the all-embracing divinity and returning again as Great Birds to guide others back in this path. The return retracing the path is the Swastika sustaining evolution and involution in the universe. The Jaora artist had definitely this conception within, with which he or she must have drawn without.





Figure 8: Swastika pattern that had later developed in Indus Valley seals, India (see extreme right) and the Eastern Mediterranean (remaining)



Figure 9: Stem of Gamma(s) and the relay of the pattern in the Jaora Abstraction signifying hierarchy and to-and-fro flow of the Swastika (Readers may explore the flow of gammas or half-Torque force lines that relay the twist and the turns of the cycles of swastika; Note the ascending Red series (right) and the descending Blue series (left) and the convergences to an inter-embedding centering the middle band)

In this context the following interpretations by Catherine Delano Smith of the University Of Chicago, may be cross-referred. Dr. Smith has six key observations regarding the fascinating Early Mesolithic or late/ Upper Palaeolithic abstraction found in Jaora, Madhya Pradesh, India:

- 1. The three parts of the cosmos are represented. The top band of the design is easily recognized as portraying, in naturalistic style, a watery environment. A shoal of fish (associated with the netherworld) swims among clumps of reeds or water plants. Also in naturalistic style are the five birds in flight outside the main design, said to represent the air, or the upper world. In the rest of the picture, the signs are more stylized.
- In the right-hand and lower borders are water birds. 2.

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3. An empty circle or disk, presumably the sun, marks the center of the composition.

- From it, rays-zigzag lines-run to the lower border.
- The four intricately pattered bands filling the rest of the panel have been suggested as representing the earth.
- 6. As a whole, the picture "can be understood as a symbolic depiction of the late Palaeolithic to earliest Mesolithic cosmos."

At this point, archaeologist Upinder Singh (2008) raises the following questions:

Why did people make such paintings? Probably for many different reasons

- To express their creative urges
- To decorate their homes or to tell a story in pictures. Some scenes may have been picture-stories of memorable events in their lives. Other may have been connected with rituals connected with hunting and fertility. It is impossible to say whether the paintings were made by men or women, or both. Apart

paintings.

completely different.



Figure 10: Iteration and cycles as the Tao; the structure of Ascent and Descent of Right and Left Nerve currents; the Jaora Form; the currents and the Bird-Form in upper zone explained by Hippocrates in Ancient Greece; the Red and Blue series based on the Fibonacci described by Architect-Cubist-Artist Le Corbusier (Note the horizontal RED line penetrating at the Sixth plane)

from the scenes of animals and people, there are a few more enigmatic

A very interesting painting, rather abstract painting has been found in a rock shelter at Jaora, Madhya Pradesh, India. Perhaps it reflects a view of the world consisting of air, earth and water. But it is possible that it means something

The three layers are the three of the *pancha-bhutas* or the triple world evident in the Cosmogony of Vishnu, Varuna and Rudra in the Vedas or in that of another triad, i.e., Zeus-Poseidon-Pluto or Hades in Hesiodic or Homeric cosmogony. The cyclic patterns of creation, integration and separations of heavens and earth (Dyva-prithvi) and its further interpretations forward a powerful basis of the explanation. In modern sciences today, particularly in climatic, ecological sciences forwarding the linkages between Ocean (nether-world) and Land-River (collectively as *Prithvi*) and Atmosphere (the first layer of the Celestial or *Dyava*), the older traces of Vedic cosmology are evident. The constructs of the Water cycle particularly as the source of Life in the Terrestrial and the Life Cycle itself are the twin foundations of modern sciences as evident in the Vedas.

The evolution of the three lines of growth in a zig-zag (45 and 90 degree) pattern in the lower level; and the further convergence and complexity if the three lines of growth as a consolidate pattern in the higher levels is the most striking feature. But what is most striking and revealing here is the formation of the Swastika pattern based on two parallel and convergent movements of the right and left bands as a whole; and the middle band maintaining the fulcrum, the central axis to the abstraction itself (See Figure 9 and 10).

An extensive work by Sir John Woodroffe (7) on the right and left bands representing the twin nerve currents explain the balancing of the ascending and



in the RIGHT crown and White or complete release of creation in the LEFT bottom): It forms the quadrangular framework of the Vedas

descending forces. The middle band sustains the balance. Figure 11 explains the linkages between the vast and small world; explain evolution of the small towards that vast and involution or involvement of that vast in the small. It presents the cardinal framework of the Swastika, the core of Vedic Cosmology (Epistemology) and Cosmogony (Applied Ontology of Being and Becoming and Hermeneutics.

## Conclusions

V. Selvakumar in his paper entitled: "ROCK ART AS COGNITIVE-FUNCTIONAL REPRESENTATIONS: METHODOLOGICAL ISSUES IN THE STUDY OF ROCK ART IN INDIA" says:

Mere 'discovery' of sites cannot lead to a better understanding or growth of knowledge in archaeological research. Detailed, systematic documentation of the archaeological record and the natural landscape of the region in which rock art occurs, investigations of the palimpsestic nature of rock art, application of scientific techniques, ethnographic studies and holistic analysis in comparison with other forms of cognition could help achieving better research results.

Selvakumar's paper argues that formation processes and the broader cultural and archaeological, and specific ethnographical contexts need to be taken into careful consideration in rock art research. Besides, the limitations in the lines of reasoning adopted in rock art research are also reviewed in this paper, which argues that rock art needs to be viewed as part of the broader cognitive-functional representation of human cultures. Subsequently G.S. Tyagi (1992) observed that the early dynamic dancers in green are preceded by intriguing intricate designs, a non-iconic form of rock art in Central India, particularly at Jaora (Tyagi 1992: 303-318). Professors Giriraj KUMAR and Ragini ROY of Indian Culture and Rock Art Science and Department of Drawing and Painting, Davalbagh Educational Institute in their work entitled "Late Pleistocene art of India" have forwarded a powerful observation:

India has produced sufficient evidence of late late-Pleistocene art, mostly in the form of mobiliary art objects. Archaeologically they are associated with an Upper Palaeolithic industry. Besides, there are some simple forms of petroglyphs and early form of dynamic dancers and animals in rock paintings. These, on the basis of circumstantial evidence, can also be assigned to that period. Thus, the late late-Pleistocene art of India presents the beginning of motif development, creation of design and ultimately that of animal and human forms. Ultimately it laid the foundation for the rich and varied tradition of Indian rock paintings in the following period. The tentative time span of Upper Palaeolithic in India is 40,000 to 10,000 yrs BP.



Figure 12: Location of Jaora and other Central India Upper Palaeolithic Art forms with respect to a) The Indus valley Civilization and b) the ancient route depicted in the Epic Ramayana

art forms. An important starting point may be to trace the epic route depicted in the Ramayana, where the Solar Clan King Rama was on his way to the South and finally Sri Lanka. In the south he had met at every step the ancient lands and their settlers, the mother aborigines of India. This aboriginal population as depicted by the Epic shows one of the highest exalted levels of culture, aesthetics and humanity. Much later, the story of the 16 Mahajanapadas (Confederations of ancient India) like Avanti, Gandhara, Anga, Kasi and many others have had been sustained and recorded in many Buddhist and Jaina literature. But the roots of these confederations and the distribution of the original Aboriginal population of India are evident in the quadrangular journey of a four point search team, which was initiated from the south (south of Lower Malwa and the Narmada valley in the Tungabhadra belt) to search and trace Sita, the lost wife of Rama. The Epic may be a myth but the facts and geographical locations of an ancient India, decoded from the Epic story is actually a reality coded by many 400 BCE literature of India. That is not a speculation. It is fairly possible that the heart of India, the lower Vindyachal Mountains and the greater Narmada-Cauvery valley holds the key of the original aboriginal art, the Swastika and many, many others. It may also true that the aborigines had extended to the eastern Indus valley Civilization, further extending from the Salt range valley of Punjab, once pointed by the 1935 Yale-Cambridge expedition. It may not be a speculation.

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What is important now is to look and explore the location of the central Indian rock

The present Jaora art form having a significant level of imagery and richness can be further explained in that ancient light. It may be further proven that the roots of the Vedic Cosmogony and the deep Ecological models as depicted by this piece of art and many others in this region features an original Indian culture dating back to 10000 BCE and even earlier, which was Vedic. That culture was not an alien import from other lands in the west and not a product of any invasion. Jaora today is the part of the ancient Avanti-Malwa confederation, which was known to the ancient Sumerians as 'Meluhha'. The Phoenicians, the ancient mariners, who were coming from the entire eastern stretches of the Persian Gulf and Bargyza (Bhrigu-Katccha or mouth of Narmada) were heading for the Eastern Mediterranean a few thousand years prior to the Buddha and the Christ. They had possibly sustained and maintained the ancient key of a westbound dissemination of their oriental heritage. The ancient Indian Swastika is therefore 11000 years old or even earlier, predating any Aryan invasion, and evident in many ancient Palaeolithic Indian rock art forms. Jaora is just one of many. Others are awaiting revelation!

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Two broad groups of cosmological signs can be distinguished. In one group can be put the general signs of a cult, such as sun signs. In the other are the signs that relate to a specific aspect of that cult, such as the question of access from this world to the next. The former can include a formidable variety of cosmological signs. For Asia, Fawcett reproduced no fewer than thirty-two types of "sun and fire" symbols, characteristic of Asian art in general, many of which he had found among prehistoric rock paintings in the Edakkal cave (Wynaad, India), still the focus of an annual religious pilgrimage.

The signs ranged from the familiar quartered circles, crosses, **Swastikas**, and stars to curving Yshapes, S shapes, and variously rayed circles, and they were packed so densely that Fawcett commented, "It takes a protracted and close study to make anything of them." For the historian of cartography, however, it is the second group of signs that holds the greatest potential interest, since they imply a spatial relationship between this world, the underworld, and the next world or heaven, as well as the journey between the worlds.

CATHERINE DELANO SMITH Prehistoric Cartography in Asia, University of Chicago Press http://www.press.uchicago.edu/books/HOC/HOC V2 B2/HOC VOLUME2 Book2 chapter1.pdf



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TIMES OF INDIA Coverage (July 7, 2016) provided the first glimpses of the answers forwarded by the present section:

- 1. Why Swastika is of a Pre-Arvan Invasion Myth and in what form it dates back to 11000 years or even earlier in India?
- 2. How did the original population of India, contiguous to the Upper Narmada valley stretching up to the eastern Indus Valley civilization on the one hand and to the lower Tapti-Cauvery civilization on the other hand. were the makers of the semiotics and Iconography of Vedic cosmogony and cosmology, called the Swastika?

## A MUCH-TRAVELLED SYMBOL 馸 Indus Valley Mezine Civilization, Ukraine Civilization 2700E A Hittite Cretan Civilization Mesopotamian Civilization Civilization 2500 1800BC

## HIGHLIGHTS

- Swastika is the Indian symbol of peace and continuity that Hitler co-opted for his twisted Aryan supremacy theory
- Researchers believe Swastika is older than the Aryans and even the Indus Valley Civilization
- Research was based at IIT-Kharagpur and led by one of its most senior professors

KHARAGPUR: Swastika -the Indian symbol of peace and continuity that Hitler co-opted for his twisted Aryan supremacy theory -is much older than believed, older than the Aryans and even the Indus Valley Civilization, says a team of top-notch researchers from some of the most prestigious institutions in India.

queries.

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# THE TIMES OF INDIA

## Swastika is pre-Aryan, dates back 11,000 years

### Jhimli Mukherjee Pandey | TNN | Jul 7, 2016

The researchers say the Swastika dates back at least 11,000 years and have traced its spread to western and Middle-Eastern civilizations. In fact, one of their key findings is that a Ukranian Swastika, believed to date back 12,000 years to the Paleolithic Age, may not be this old, say sources.

The team will announce these and other "breakthroughs" at the Indian Council of Cultural Relations (ICCR) on July 8, exhibiting all the evidence they have collec ted. They will also answer

The research was like solving a jigsaw puzzle in the maze of history, involving study of codes and symbols that would excite Dan Brown.

Based at IIT-Kharagpur and led by one of its most senior professors, it was conducted by Sandhi, an HRD ministry-sponsored effort to amalgamate ancient Indian knowledge systems with contemporary science.

The riddle was pieced together by scholars from many IITs, NITs, Centre for Environmental Planning and Technology-Ahmedabad, School of Planning and Architecture-Bhopal, and Jadavpur University. In tracking the antiquity of the Swastika, the resear chers came across a staggering discovery -that the Rig Veda, generally associated with Aryan civilization, existed much before that, dating back to the pre-Harappan times in the form of Shruti that were orally handed down through the Indus Valley civilization.

"We have found the most mature and geometrically ordered Swastika in the pre-Harappan times in the form of seals. We have also been able to trace the mention of the Swastika in the Vedas around the same time. These are scintillating findings that will help us announce that the Indian civilization is far more ancient than what is written in accepted history books, mostly by Europeans," said Joy Sen, a faculty

member at IIT-Kgp faculty and lead project investigator.

The team will show how the Swastika migrated from India -through the Tartar Mongoloid route via Kamchatka to the Americas (hence the plethora of Swastikas in the Aztec and Mavan civilisations), and through the Western land route to Finland, Scandinavia, British Highlands and Europe where the symbol is present in varying shapes of the cruciform.

"After dividing the world into nine quadrants into which Swastika moved from India, we retraced its footprints and have been able to graphically prove our claim through ancient seals, inscriptions, imprints, and religious symbolism in these countries. We will reveal it in great detail." Sen said.

Unfortunately talk of Swastika cannot avoid the horrors of its hijack by Hitler to suit his Aryan supremacy theory. "It inspired Schopenhauer, Friedrich Nietzsche and their progeny, Adolf Hitler, who started an inverted agenda of anti-Semitism based on a falsified Aryan invasion myth through seven years of war, terror, corruption and extermination." Sen said.

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# Preamble

## Retrospect: Swastika

Do you need to conduct historical studies across cultures to trace a symbol whose appeal is so universal and whose foundations are so humane and cosmological at the same time? The answer may be either a no or a yes. It is a 'no' as truths, which are universal and impersonal may not be dependent on mundane historic transfers and migration impacts across borders and cultures. Any race, any single human aspirant of truth at any given point of time in history can have an access to the fundamental laws of nature and that very access is irrespective of caste, creed or any religious belief. In this sense, both science and heritage eventually become universal as a process and often something which is greater than the domain of a single religion or monocentric logic. It is the first part of the argument.

On the hand, the answer could be a yes. It is yes as different cultures and societies through developing variety of expressions portraying the same truth, converge on the same truth, by keeping the underlying pattern and the diagrammatic message (what we call the ideogram) unchanged. From this contrasting point of view of cross-cultural studies and cross-anthropological inquiries, it is important then to understand what part has changed and why; and what has not and also why? In ancient Indian epistemology, often scholars label the two parts as the *Srutis* and the *Smritis*. Not many of all deep literature traditions in countries from across the world, like the Vedas in India, have the embedded strength of remaining both impersonal and personified at the same time. It is important to understand at this point that the double strength and the twin intender of Swastika as a dynamic system of pattern and ideogram having both dimensions of truth, absolute and positional, is commensurate with the Indian number system, as Laplace had pointed out –

It is India that gave us the ingenious method of expressing all numbers by means of ten symbols, each symbol receiving a value of position as well as an absolute value; a profound and important idea which appears so simple to us now that we ignore its true merit. But its very simplicity and the great ease which it has lent to computations put our arithmetic in the first rank of useful inventions; and we shall appreciate the grandeur of the achievement the more when we remember that it escaped the genius of Archimedes and Apollonius, two of the greatest men produced by antiquity.

> **Pierre-Simon Laplace** Return to Mathematical Circles

It is also evident in the following lines:

In the first place, we have to understand a little about our scriptures. Two ideals of truth are in our scriptures: the one is, what we call the eternal, and the other is not so authoritative, yet binding under particular circumstances, times, and places. The eternal relations which deal with the nature of the soul, and of God, and the relations between souls and God are embodied in what we call the Shrutis. the Vedas. The next set of truths is what we call the Smritis, as embodied in the words of Manu. Yâjnavalkya, and other writers and also in the Purânas. down to the Tantras. The second class of books and teachings is subordinate to the Shrutis. inasmuch as whenever any one of these contradicts anything in the Shrutis, the Shrutis must prevail. This is the law.

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**Swami Vivekananda** The Sages of India

## Summary of nine explorations

Nine explorations have been forwarded. It is evident from these explorations that symbols have always been used by humankind to express and preserve ideas, and activate deeper operations and relations in inter-dependent system of cultures and world civilizations. Only a few from a vast plethora of symbols extracted from different parts of the world having apparently varying surface meaning associated to them have eventually soared to higher planes of universal convergence. In that sense, such rare symbols, by virtue of their innate strength, have addressed both the parameters, namely, the deep scientific and the deep cultural. One among such symbols is the Swastika.

Swastika, being a symbol of auspiciousness has always been one of a multitude of expressions. The purpose of Swastika have had been to portray sustained spiritual growth and development achieved through the cycles of material progress and human culture. The degree of auspiciousness is therefore a step wise ascent, from the material, through the ethical, up to the spiritual. But the irony of history is that in spite of being a positive word hailed across countries and world cultures, it has acquired a negative meaning in the last century due to some developments in Europe. The problem was not with the pattern or the ideogram, but in the ways some have used it and forced others to comply through terror and warfare. Such material ambitions perhaps are a thousand symbolic feet below the true ideals of Swastika, as portrayed by the Vedic seers.

Thus Swastika has always been a living paradox. Having several interpretations based on the manifestation of the degree of auspiciousness, gradation of prosperity, extent of good fortune, the role of shades of seasons, and so forth, it has imparted something deeper and permanent beneath the wheel of transition. The nine explorations have put to light the symbol having a degree of auspiciousness, as well as decorative values. The explorations have shown that there are various opinions prevailing regarding its origin, functions, meaning, and elucidations common to many ancient of symbols. 'Mind sees what it wishes to see' and the same truth can be interpreted in various levels and shades. So is the Swastika.

In the Indian sub-continent, Swastika presents a sustained and an uninterrupted history as it can be traced from the pre-historic proto Indus Valley, and Saraswati civilization till the present times. However, in other parts of the world, the journey of Swastika from its unanswered origin to today's world is filled with mysteries and broken links of evidences spread over different ages of civilization. The origin of the Swastika is debatable as it is precisely not known to us, though the highest primacy and recurrence of Swastika are evident in the oldest cosmic world Literature, the Vedas. The Rig Veda alone has over a 100 references to the symbol of cosmic rebirths and renewals getting reflected on the illumined mind of a Sage, the Rishi, who is the 'Mantra-drashta': the seer of the Divine all-embracing Word of God! As said before, the Rig Veda (1.89.6) forwards the benign turning of the wheel in the four quadrants of Indra the Elder; Pushan the fosterer of universal growth; Aristinemy, the epitome of sophistication; and Vrihaspati as the Lord of the Vast:

It is mind-boggling to see the evolution of Swastika in central and west Asian countries comprising of Russia, Georgia, Armenia, Turkey, Cyprus, Syria, Jordan, Lebanon, Iraq, Saudi Arabia, Yemen, Oman, Iran, Turkmenistan, Uzbekistan and Kazakhstan.

Although the most primitive Swastika (known as Fylfot in Western Europe) till date has been found in the Balkan region, which is modern day Ukraine, the dominant discourse states the spread of Swastika through a migration of settlements pattern from Asia Minor to the Mediterranean region and further West and North-West of Europe. The ancient relationship between antique Persian Civilization and Vedic Sages is through Prophet Zarathustra, who was an Atharvan and the evidence often dates to 9000 BCE as per the earliest Greek philosophers like Plato and Diocletes. It may be so that the eastern Balkan Swastika, which had been an extension of Khorasan (Iran) and Cochis (Georgia and Iberian Caucasus) to lands further westbound, could be drawing distant inspirations in these times of antiquity. New archaeological explorations along the present book.

across the two continents.

ancient trans-Caucasian land route may yield startling results in the near future. SandHI awaits that prospect! Despite vagaries in manifestations. Swastika presents an enigmatic thread, which is scientifically balanced, culturally measured and socially intended, a SandHI exploration says, in the

Finally, it is scintillating to see that Swastika influenced even the cultures and civilizations of the Maya Civilization, Hopewell Culture, Hopi Culture, Navajo Culture, Aztec Culture, Inca Culture in the Americas. How did it happen? Can it be ascribed to argument one or argument two, presented in the retrospect. Beyond that there is also the relevance of Swastika that might have swept the Pacific region in areas like the Alaska, Hawaii, Fiji, French Polynesia, Easter Island, New Zealand and they may bear a deeper Tatar-Mongoloid connection



5.7

The continual motion and revolution of the invisible forces of the universe and the cycles of time, represented by the four arms of the cross being bent at right angles to signify motion and rotation.

H.P. Blavatsky

"The squaring of the circle is one of the many archetypal motifs which form the basic patterns of our dreams and fantasies.

But it is distinguished by the fact that it is one of the most important of them from the functional point of view.Indeed, it could even be called the archetype of wholeness." Carl Jung



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Swastika, A Sanskrit word meaning "well-being," "auspicious" - the perennial symbol of good fortune found in the cradle of ancient cultures of India. China. Japan, and the Americas..., Symbol of evolution and perpetual motion, the swastika denotes the ever-churning "mill of the gods,"



Then He manifests himself as the Active Cross, or Svastika, the first of the Logoi to manifest outside the two highest planes, though the third stage of the divine Unfolding. Annie Besant

"Beyond its certain presence in the "proto-writing" symbol systems emerging in the lithic period (9500 BC), nothing certain is known about the symbol's origin."



# Pattern behind patterns

The etymology of the word Swastika is rooted in the fundamental Sanskrit word: *Asti*, which means an established configuration and a truthful valued existence. In the Indo-European tree, *Asti* is connected to the word 'esteem' (or a softer replacement of another closely related popular word namely self-esteem). *Asti* is quintessence of the valued self, which is tantamount to self-esteem.

In Old French, it is *estime* (noun), *estimer* (verb), and from Latin *aestimare* 'to estimate'. The essential meaning again is associated to set a high existential value which can be best estimated. It also means to regard a presence with respect or reverence, by virtue of the value of absolute existence and its positional existence, both. The key words here are acquired value and a degree of respect that is attached to that value. The two are inter-related and they represent the foundations of any sustained civil society. The ancient Aryan Society as preached by the Aryan Seers is precisely that.

The Sanskrit Etymon is from root *As*, leading to the word *Asti* meaning existential essence and consequent truthful foundation. The opposite is *Nasti* (which is *Na Asti*), meaning non-existence. *Swasti* is the benign (based on pre-fix *Shu*, which means good, significant and benign) forwarding of valued existence and the essential self-sustained truthfulness that is embedded within and gradually manifested without. Hence, Swastika is a DYNAMIC EQUILIBRIUM.

When Swasti is dynamic, procedural and validated over time, it is Swati + Avan = Swastavan, leading to something that holds the key to sustainability as an evolutionary paradigm. In the present context, one may discover an Indo-European root / the etymon of the word 'Sustain' in a Sanskrit word Swastayan. Thus the two words peace (word is 'sanity') and sustainability may be taken as a binary one and the two are also somehow deeply rooted in the two corresponding words, Santi and Swastavan. As movement of Swastik is facilitated, it becomes a continuous, dynamic and value added evolution and progress of the human mind. It is just not a cyclic progress but also a movement and growth of the truthful existence which builds step by step, quadrant by quadrant, felly by felly and level by level (from the lower levels of truth to the levels which are higher and even higher). The movement is a pattern of the Swastika. A dynamic pattern of Swastik itself represents the solar world as envisioned by the Vedic seers. Thus Swastik in the Vedic parable is also Aditya, akin to Whitsuntide of the Semitic tradition. The tradition of the Great Bear (Saptarshi Mandala) revolving around the Pole Star (Dhruva Padam) is both a Vedic and a Freemasonry ideogram. It represents death and resurrection, the basis of the Crucifix having deep nature, pagan and shamanistic origins across Asia. Within the two the most ancient roots that are ancient, natural, shamanistic and pagan, the universal principle of sustainability may therefore be recovered. Fortunately, the Vedic roots are the same!

Returning is the motion of the Tao and going far means returning. The idea is that all developments in nature, those in the physical world as well as those of human situations, show cyclic patterns of coming and going, of expansion and contraction.



Time, space, and causation are like the glass through which the Absolute is seen... In the Absolute there is neither time, space, nor causation.

Swami Vivekananda

Nothing to the supramental sense is really finite; it is founded on a feeling of All in each and of each All.

Sri Aurobindo

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releases;

## **Principle of** sustainability

Why and how, across many periods, did so many diverse cultures sustain the usage of the same ideogram and ostensibly with the similar meaning? Swastika is one of the oldest symbol recognized to the human race and has been in continuous application in one form or the other across the globe. The highly auspicious symbol is derived from the Vedic Dharma, the oldest way of life (Eridos, 2009). The reason for the sustenance of Swastika over the centuries is not only cultural but also has scientific dimensions and consistency with the universal concept of humanity and spirituality. Moreover, geometrically Swastika represents unchanging, endless, and multi-directional nature of God as turning it around its centre does not make any physical or geometrical change and portrays eternity (Padhya, 2005). Its arms denote the unintended way to reach the Divinity through intuition and not by intellect and reflect that the path is often not straight, but takes unanticipated turns. The inevitable sustainability of the symbol is also attributed to its coherence with the set of five core Sustainability Principles - the spiritual domain (attitudinal orientation and basis for universal code of ethics), social domain (cultural and social connections), domain of life (bio-spherical conduct), economic domain (fortune and auspiciousness), and material domain (regulating the flow of energy) (Ben-Eli, 2005). Swastika is truly a 'living' ideogram and much more than a symbol.

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## Solar-Terrestrial Life Cycle

Giget cloud of pas in later

### "Knowing one lump of clay we know the nature of all the clay that is in the universe."

Thousands of years ago, it was demonstrated by Kapila, the great father of all philosophy, that destruction means going back to the cause. If this table here is destroyed, it will go back to its cause, to those fine forms and particles which, combined, made this form which we call a table. If a man dies, he will go back to the elements which gave him his body; if this earth dies, it will go back to the elements which gave it form. This is what is called destruction, going back to the cause. Therefore we learn that the effect is the same as the cause, not different. It is only in another form.

Swami Vivekananda The Complete Works of Swami Vivekananda Volume 2, Jnana-Yoga Planets form from the disks and the new solar system is ber superior of Life cycle analysis

erything exists through eternity, and will exist through eternity. Only the novement is in succeeding waves and hollows, going back to fine forms, and coming out into gross manifestations. This involution and evolution is going on throughout the whole of nature. The whole series of evolution beginning with the lowest manifestation of life and reaching up to the highest, the most perfect man, must have been the involution of some thing else.

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Life Cycle Analysis is a technique to assess environmental impacts associated with all the stages of a product's life from cradle to grave (i.e., from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling).

Compiling an inventory of relevant energy and material inputs and environmental

Evaluating the potential impacts associated with identified inputs and releases

## **Semantics behind** the ideogram

The Penguin Dictionary of Symbols (1982) says:

• One of the oldest symbols in existence is the Swastika, and it is one of the most widely spread, from furthest east to Central America, via Mongolia, India, and Northern Europe. It was well-known to Celts and Etruscans and to Ancient Greece, so that the so-called Greek key pattern derives from it. Some writers have tried to take it back to Atlantis, which shows its great antiquity.

The legend of Atlantis is based on the word *Atl*, which is an Indo-European word, means water or some great depths that are abysmal and chthonic. From the words Patale prevalent in Indian and archaic Greek Orphic literature, the etymological origins of various geographic regions can be traced: Anatolia (modern day Turkey), Atalia (modern Italy), and the Atlas Mountains (modern Morocco and Tunisia) along North West African coast to a multitude of Mesoamerican words are to name a few. They all end with the same suffix atl and with that the Atlantic myth perhaps gets only strengthened. Perhaps, an extended civilization from the Himalayas, the highest point, to depths in the Atlantic and the Pacific is the clue. But here is another clue. There is a group of people who interconnects the ancient world through their sea-faring lands. Known as the Phoenicians, they had originated in the eastern Persian Gulf as per Historian Herodotus.

Cross-cutting so many cultures, Swastika has ramified into a plethora of depicted meanings, what we call ideograms. This multitude of references has come in vogue from the 1850s, certainly so used by D'Alviella (1894) where a variant of the term of 'Sauvastika' is used to classify the geometrical form of symbols in Liungman, Carl G., Symbols: Encyclopedia of Western Signs and Ideograms.

Swastika forwards an ancient ideogram, signs of which have been found in the Euphrates-Tigris Valley, and in some areas of the Indus valley, dating back 5000 years; it became commonly used around 1000 BCE, possibly first in ancient Troy, in the northwest of modern Turkey.

Throughout a passage of many centuries, Swastika has emerged as an ideogram or an ideograph (from Greek word "idea" and the word "gram" to write). It has emerged as a graphic symbol that represents an idea of cosmic renewals, ecological sustainability and human progressive recurrence traversing different levels. The 9 explorations presented in the book have portrayed ideograms that convey the deep pictorial resemblance to a plethora of physical reality that Swastika has strengthened with significance and auspiciousness.

of thermodynamics."



When the heat which can be so used.

increase in entropy.

## **Carnot Cycle of Heat-Energy**

In the early 19th century, Nicolas Léonard Sadi Carnot (1796-1832), a French military engineer, published Reflections on the Motive Power of Fire in 1824. The book proposed a generalized theory of heat engines, as well as an idealized model of a thermodynamic system for a heat engine that is now known as thea Carnot cycle. Carnot developed the foundation of the second law of thermodynamics, and is often described as the "Father

the second law of thermodynamics states that not all the supplied heat in a heat engine can be used to do work, the Carnot efficiency sets the limiting value on the fraction of

In order to approach the Carnot efficiency, the processes involved in the heat engine cycle must be reversible and involve no change in entropy. This means that the Carnot cycle is an idealization, since no real engine processes are reversible and all real physical processes involve some

numbers that seems to arise out of the basic structure cosmos. Phi appears regularly in the Realm of things that grow unfold in steps just as the nutshell grows larger on each spiral by Phi. Phi is the agglomeration of the Four armed diagram of Swastika that denotes the 'CYCLE' or a 'LOOP'.









### The Carnot cycle consists of the following four processes:

I. A reversible isothermal gas expansion process. In this process, the ideal gas in the system absorbs gin amount heat from a heat source at a high temperature Th, expands and does work on surroundings.

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II. A reversible adiabatic gas expansion process. In this process, the system is thermally insulated. The gas continues to expand and do work on surroundings, which causes the system to cool to a lower temperature, TI.

III. A reversible isothermal gas compression process. In this process, surroundings do work to the gas at TI, and causes a loss of heat, qout.

IV. A reversible adiabatic gas compression process. In this process, the system is thermally insulated. Surroundings continue to do work to the gas, which causes the temperature to rise back to

## **Ancient ethos** revisited



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In the Rig Veda, perhaps the oldest document on cosmological literature of the world, Swastika has featured a 100 times. It is the highest frequency of an intellectual recurrence establishing both the primacy of the symbol and its inherent pattern in the land and the documentation of the Aryan Sages of Aryabhata, which is India. Here are a few among many:

In the Rig Veda: 3.30.16, it stands for the Cruciform of the Thunderbolt, analogous to the Greek Cross. The description recurs in Rig Veda 3.58 (see Figure 1).



Figure 1: Four armed Buddhist Vajra and Greek Cross Fleury

2 In the Rig Veda 4.53.3-4, Swastika is evident in the quadrantile anthropic form, where the power of the Sun becomes the power of the seer, with arms extending eastbound, westbound, northbound and southbound, embracing the four cardinals and all space. It is analogous to the universal body of the Christ, another sacred document composed a few thousand years later. A near description is evident in the Rig Veda 2.28.2 and 6.71.1. The quadrantile space has been made evident in the ancient Persian literature emulating the cross-like Garden of the Eden called the Chahar bagh (say, the Taj Mahal see Figure 2).



Figure 2: Four armed Chahar-Bagh, a tradition from Persian Architecture to later Islamic forms (Tai)

3 The power of the Sun is *Savita* (*Savitri*) in the Vedic Cosmogony. Its allembracing cardinal manifestation is evident in the syllable 'Savita Sarbatati', which means the divine rays of the Sun (Savita) which is both a Creatrix (Left hand or the ramification of Tantra) and a Reconciler (Right hand or path of Yoga). 'Savita Sarbatati' is all embracing cardinal, a pervasive space realized by the Seer (Rishi) and manifested as a Seer-realization (Dharana). The pattern brings forth the highest dynamism between spiritual harmony



Figure 3: Swastika in Mandala; in the footprints of the Sanchi Stupa and the Ashokan Pillar





## **Electro-Magnetic system**

The iteration between the energy flows, which is transferred from the electric field of the capacitor to the magnetic field of the inductor. When the capacitor is fully discharged, it stores no energy. At this time, the current reaches its maximum value, and all of the energy is stored in the inductor. The current continues in the same direction, decreasing in magnitude, with the capacitor eventually becoming fully charged again but with the polarity of its plates now opposite the initial polarity. This is followed by another discharge until the circuit returns to its original state of maximum charge Qmax and the plate polarity shown in the figure below. The energy continues to oscillate between inductor and capacitor (iteration)

Electric Proceed.

A simple LC ciruit. The capacitor has an initial harge Quest, and the switch is own closed at t = 0.



## **Motion of A Spring-Mass System**

The simple harmonic motion of a mass on a spring is an example of an energy transformation between potential energy and kinetic energy. In the example below, it is assumed that 2 joules of work has been done to set the mass in motion.





## The Ideology of Swastika

and physical space, which is Swasti evident in the explanation by R. Guenon in Penguin Dictionary of Symbols. The references are evident in the Rig Veda 3.54.11. 1.94.15; 6.15.18 and 6.56.6; and 9.96.4. A powerful rendition of the idea is also evident in the Dasam Mandala of the Rig Veda: 10.36.14. In here the four cardinal directions i.e., Issan, Vavu or Maruti, Nairit and Agni are all evident. It constitutes the framework of the Vastu Purusha Mandala. the Buddhist Stupa Footprint and the Ashokan Pillar (see Figure 3). Circulation around a wheel, formation of the apsidal (a crescent network) of either a Buddhist Chaitya Hall or a Christian basilica representing peace and cosmic harmony. What is the underlying tie? It is Swastika.

4 Seer Lush (Rig Veda 10.35.all) describes the cyclic movement of the all benign Agni which he terms Swastagni. The whole sutra portrays the movement of the Sun (Aditya) holding the wheel of Cosmic causation and law, which is *dhamma* portraying what is right and what is auspicious for all humanity. Sage *Vasistha*, a representative guardian sage from the array of the celestial seven sages, presents the recurrence of cosmic sustainability (Rig Veda: 7.97-101). That is the Aryan way and that has shaped the course of cultures around the world (see Figure 4).



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Figure 4: The Aryan Ideogram recurs everywhere: Phoenician seal; Sumerian pottery; Indus Valley

## Contemporary relevance

The present book has arrived at a single symbol that alone can trace the very antiquity of Indian history, its Vedas and the age of the Aryan Sages mentioned in the oldest of all texts. It has been able to trace a common pattern to link and network the ribbon of world civilizations, much of which the world owes to India. It also forwards a scientific basis that cross-cuts the latest of scientific concepts like Sustainability and Life Cycle renewals in contemporary evolutionary, environmental and the ecological sciences.

Today a large pool of faculty, scholars and summer interns of 2016 has converged to answer these aforesaid dimensions exploring a recovery of one Symbol – 'The Swastika'. A team of 50 interns from various IITs, NITs, CEPT (Ahmedabad), SPA (Bhopal and Delhi), Jadavpur University, Kolkata and many others have joined the Science and Heritage Initiative (SandHI), IIT Kharagpur to research and display the answers through an Exhibition in the Indian Council for Cultural Relations, Kolkata on July 8 - 10, 2016. The present book is a sustained testimony to the effort.

When Gautama the Buddha had come to Varanasi, by re-establishing the 'the Wheel of Cosmic Causation', he brought forward the lost Swastika, one of the most ancient symbols of the world. The architectonic footprint of the Sanchi Stupa is the testimony (see Figure 3). From the iconography of ancient Varanasi, to the spiral formations and cyclic patterns of the modern City of Auroville offered by the first generation followers of Sri Aurobindo and Mira Alfassa, IIT Scholars today are tracing the codes and patterns of DNA and even Chromosomes, underlying all – life, evolution, and sustainability (see Figure 5)



Figure 5: From re-turning the Wheel of law in Sarnath. Varanasi to the layout of Auroville, Pondicherry

One of the oldest symbols in existence is the swastika, and it is one of the most widely spread, from furthest East Asia to Central America, via Mongolia, India and northern Europe. It was well-known to Celts; and Etruscans and to Ancient Greece, so that the so-called Greek-key pattern derives from it. Some writers have tried to take it back to Atlantis, which shows its great antiquity.

Number symbolism helps to understand better the sense of the power of aggregation conveyed by this symbol. The swastika consists of a CROSS guad-rupled, because each of the four arms extending from the centre has a further extension pointing in the direction in which it rotates. Its numerical value is therefore FOUR times four, or sixteen, and is the evolving power of reality or of the universe.



ॐ भद्रं कर्णेभिः शुणुयाम देवाः ॥ भद्रं पश्येमाक्षभियंजत्राः ॥ स्थिरैरङ्कैस्तष्टवाः सस्तनुभिः ॥ व्यञेम देवहितं यदायः ॥ स्वस्ति न इन्द्रो वद्वश्रवाः ॥ स्वस्ति नः पृषा विश्ववेवाः ॥ स्वस्ति नस्ताक्ष्यों अरिष्टनेमिः ॥ स्वस्ति नो बृहस्पतिर्दधातु ॥ 🛪 ज्ञान्तिः ज्ञान्तिः ज्ञान्तिः ॥



n every case this symbolism is one of aggregation, recurring in China, where the swastika is the sign for the number ten thousand, which is the totality of beings and manifestations. It is also the earliest shape of the ideogram FANG denoting the four quarters of space. It might well be related, too, to the numbers of the LO-CHU, which in any case conjure up cyclical and gyratory motion.

Another form has each arm ending in A KEY, a clear expression of key symbolism, the vertical axis corresponding TO priestly office and the solstices and the horizontal to kingly office and the equinoxes.

**The Penguin Dictionary of Symbols** 







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Swastika or at times, Svastika, can be seen everywhere. Nicolas Léonard Sadi Carnot, a French Scientist in 1890s traced the ancient order and disorder (entropy) in his second Law of Thermodynamics. Known as the Carnot's Cycle today, inspiring all contemporary generations of scientists and engineers around the world working on everything from Heat Engines to Flywheels as Large renewable Energy systems, the four stage pattern of the Swastika is evident in the four stage energy system. Every branch of Swastika is a force and it is equal and opposite of the other one exactly opposite to it. In the language of science it is called a Torque, which is also an ancient Indo-European and Celtic pattern of embroidery and Jewelry (see Figure 6).



Figure 6: From the Mechanical system of Torques to the 4 stage Carnot's Cycle in Thermodynamics;

In natural sciences, the patterns recur through the iteration of potential and kinetic energies or Conductance-Inductance in a 4 stage Mechanical Mass-Spring system or a L-C circuit in Electro-Magnetism (see Figure 7). The ancient Vedic wisdom has continuously resurfaced through the pages of modern science and currently in the books of applied science and mathematics.

The present Monograph has showcased the global advent of Swastika, from the seals and images of the Mayans to that of the Aztecs in ancient America; from the Indus Valley Swastika seals portraying the oldest Vedic genre of cosmic order and renewals to the patterns of Science today. Swastika portrays changes in both the small and the large, what we may call the microcosm and the macrocosm. It constitutes the binary idea that had reached the Mediterranean world influencing great minds like Plato and Pythagoras and even antique Greece and Italy, a few thousand years prior to the image of the Christ on the Cross.

The book has portrayed a journey of the Swastika from the East to the West, from the Asia Pacific to the Atlantic, bringing forth an oldest recurring pattern that had even inspired Schopenhauer, Friedrich Nietzsche and their ideal progeny, Adolf Hitler. Hitler particularly promoted an inverted agenda of anti-Semitic exploitation using the Swastika symbol evident in ancient Europe. Hitler created the story of a Super Teutonic race on a falsified Aryan Invasion Myth that led to seven years of terror, havoc and extermination known as the horrors of the Second World War. The 1935-42 German aggression represented something that is exactly opposite to what Swastika truly is. Accordingly, the aggressions in civilized Europe sharply contrasts the sublime and ethereal depictions of the Swastika embedded in the Srutis of India and a galaxy of a thousand aspirations of composers from various ages, known as the Vedic seers. Having discovered the supple, the sublime, the higher and the humane, Swastika brings us back to their magnanimity; to their wide open doorsteps unto the universal; and closer to the waves of their chanting - 'Satyam Ritam Brihat':



Figure 7: The 1 (origin) + 4 staged (flow) cyclic iterations in an Electro-Magnetic system (LC Circuit) and a Mass-Spring Mechanical system (Potential and Kinetic Energy iterations)

- Satvam is the Sooth of the Seers and the Savers of the Word; *ritam* is the rhythm of that Sooth or the realized truth; and *Brihat* is the delightful breadth, the expanse which sustains the interconnected flow of immortal life! The flow is the very soul of Swastika!

research" ....

imagination of man" . . .



peace.

"All that we are arises from our thoughts. With our thoughts, we make our world"...

- Lord Gautama Buddha

"The cosmic religious experience is the stronges and noblest driving force behind scientific

- Albert Einstein

"The imagination of Nature is far, far greater than the

Richard Feynman



May we hear good with the ears, and see good with the eyes. May our body be strong and healthy, may we sing praises. Indra, who is well-praised, is good for/to us. Pusha ( pUShA, पूषा), the all knowing, is good for/to us. Tarkshya (tArkShya, तार्क्ष्य), the all saving is good for/to us. Brihaspati (bRihaspati, बृहस्पती) is good for/to us. Let there be three fold

- Rig Veda 10.36 - 10.36

ॐ भद्रं कर्णेभिः शणयाम देवाः ॥ भद्रं पश्येमाक्षभिर्यजत्राः ॥ स्थिरेरङ्गेस्तुष्टवाः सस्तन्भिः ॥ व्यशेम देवहितं यदायुः ॥ स्वस्ति न इन्द्रो वृद्धश्रवाः ॥ स्वस्ति नः पुषा विश्ववेदाः ॥ स्वस्ति नस्ताक्ष्यों अरिष्टनेमिः ॥ स्वस्ति नो बृहस्पतिर्दधातु ॥ ॐ शान्तिः शान्तिः शान्तिः ॥



mewhere something incredible is waiting to be

- Carl Sagan

Anything that we can destroy, but are unable to make s, in a sense, sacred, and all our 'explanations' of it do not explain anything" ...

- Ernst Friedrich Schumacher

were asked under what sky the human mind has fully developed some of its choicest gifts, has most deeply pondered on the greatest problems of life, and has found solutions, I should point to India" .

Max Mueller



## A SYNOPTIC OVERVIEW OF THE COUNTRIES STUDIED

\* China \* Japan \* Korea \* Mongolia \* Australia \* Papua New Guinea

• MYANMAR • LAOS • THAILAND • VIETNAM • MALAYSIA • INDONESIA • SINGAPORE • CAMBODIA • BRUNEI • PHILIPPINES

• Russia • Uzbekistan • Georgia • Kazakhstan • Turkmenistan • Turkey • Iraq • Iran • Saudi Arabia • Oman • Yemen • Jordan • Israel • Jerusalem

• AFGHANISTAN • PAKISTAN • NEPAL • BHUTAN • BANGLADESH • INDIA • SRI LANKA • TIBET

• Finland • Estonia • Latvia • Lithuania • Belarus • Moldova • Romania • Bulgaria • Macedonia • Greece • Turkey • Cyprus • Egypt • Sudan • Ethiopia • Kenya • Uganda • Tanzania • Zambia 51

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Norway • Sweden • Denmark • Ireland • United Kingdom • Germany • Poland • Czech Republic
Slovakia • Slovenia • Bosnia & Herzegovika • Serbia • Montenegro • Croatia • Netherlands •
Belgium • France • Switzerland • Austria • Italy • Spain • Portugal • Mordcco • Tunisia •
Algeria • Mali • Ivory Coast • Ghana • Niger • Nigeria • Togo • Lisya

• GREENLAND • ICELAND • WESTERN SAHARA • MAURITANIA • SENEGAL • THE GAMBIA • Guinea-Bissau • Guinea • Sierra Leone • Liberia • Venezuela • Guyana • French Guyana • Suriname • Brazil • Paraguay • Uruguay • Cuba • Puerto Rico

CAHADA - UNITED STATES - MEXICO - GUATEMALA - CUBA - DOMINICAN REPUBLIC Puerto Rico - Nicarabua - Costa Rica - Panama - Columbia - Ecuador - Bolivia Chile - Abgentina - Paraguay - Brazil - Guyana - Venezuela - Penu

\* Aladka \* Hawah \* Marshall Islands \* Kinibati \* Naunu \* Tuvalu \* Soloman Islands \* Wallis & Futuna \* French Polynesia \* Samga \* Vanuatu \* Fui \* Tonga \* New Galedohia \* Easten Island \* New Zealand In every case this symbolism is one of aggregation, recurring in China, where the Swastika is the sign for the number ten thousand, which is the totality of beings and manifestations. It is also the earliest shape of the ideogram FANG denoting the four quarters of space. It might well be related, too, to the numbers of the LO-CHU, which in any case conjure up cyclical and gyratory motion.



## Abstract

Swastika, being a symbol of auspiciousness was always one of its derivative expressions. The irony of history is that in spite of being a positive word in most of the countries, it acquired a negative meaning in the last century due to some developments in Europe. The purpose of this section is to find out the different meanings and interpretations of Swastika in the Eastern World or Austronesia to be specific. However, the evidences of Swastika seen in this region have been embedded in the culture of each country in a very different way. As a matter of fact many important events of history have also created an impact to find direct evidences of it in each of these countries, majorly being the influence of Buddhism and Nazism. If the paths of these two movements are tried to be traced, a network can be found linking all these countries in this particular region. Moreover, this availability of the evidences in a particular spatial location also has scientific explanations asserting that even centuries ago, unknowingly science was important to mankind. Not only that, with the help of this research, one will come to know that how an auspicious symbol in various regions can be associated with the everyday life of the people and also dealing with a rational approach. A strong link, therefore, tends to get established between the scientific and cultural parameters, showing the cohesion and proving the fact that neither culture nor science can exist independently.

The Penguin Dictionary of Symbol

# **Diversity of an ideogram: A Case of Swastika in the Eastern World**

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Atul Kr. Kant<sup>1</sup>, Naveen Nishant<sup>2</sup>, Raja Singhai<sup>3</sup>, Shreyas. P. Bharule<sup>4</sup>, Sreenandini Banerjee<sup>5</sup>

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importance



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The historical background of the six countries if considered together will have an intriguing and enriching history showing the change in spatial boundaries at different time periods. However, to see the changes of these countries simultaneously, the three above time periods have been chosen.



## Background of Swastika

Swastika, being a symbol of auspiciousness and a positive word in most of the countries, acquired a negative meaning in the last century due to some developments in Europe. However, in the Eastern world, the connotations of Swastika appear to be different in each of the countries, having different interpretations, meanings, and











"It was the Badge of Power in the Order of the Golden Dawn and we know this "It was the Badge of Power in the Unit of the Phoenician-Aryans". symbol as the swastika, the ancient Sun symbol of the Phoenician-Aryans". - DAVID ICKE







## Symbol

A very typical symbol widely used in Japan which has derived its existence from swastika is the Yin Yang. It is said that the positive and negative swastika actually lead to th formation of the yin yang. The symbol has a very scientific meaning as it relates to the life cycle

## Currency

Paper notes issued in Japan and Mongolia show the relevance of swastika but with different interpretations. In Japan, the symbol of 'man/h/' is seen in 10000 yen and in Mongolia notes with vibrant colors and unique patterns were printed. Similarly, in China Wu Zhu coins were found of the Lao Dynasty displaying the swastika.

## Architecture

In the temples of Japan the concept of 'mandalas' has a resemblance with the swastika which represent the element of motion which keeps moving and creating kinetic energy. These energies are transferred from one part of the mandala to the other I moving of arms.

## **Ornaments**

Beautiful ornaments are seen with designs of swastika in the form of pendants or even as bangles with the swastika symbol embossed on it. Not only this, swastika is also seen as printed on apparels. This is because Tai Tsung of this dynasty forbade the use of Swastika in Silk, hinting on the fact that its use was there before him.

## Evidences of Swastika











Guenon explains these two opposite directions as 'the world's rotation seen from one or other of the poles' the poles in question being human and celestial, rather than the poles of the terrestrial globe.



Akshay Sahu<sup>1</sup>, Ankita Mandal<sup>2</sup>, Debanjali Saha<sup>3</sup>, Abhinay Gupta<sup>4</sup>, Tanima Bhattacharya<sup>5</sup>

## Abstract

Symbols have been used by humankind to express and preserve ideas, operations, and relations. These symbols at different parts of the world have different meaning associated to them. These can be classified broadly on two parameters, namely, scientific and cultural. One such symbol is the Swastika. The Swastika, irrespective of its place of origin, can be found almost everywhere around the globe. It has reached a status of universality like the symbol of Lotus flower. Many studies have tracked its origin and appearances throughout the world, but the region of Southeast Asia is often left untouched. This section focuses on finding Swastika and similar symbols for the region of Southeast Asia which includes the countries Burma, Cambodia, Laos, Vietnam, Thailand, Malaysia, Indonesia, and Philippines. As the tools to approach the ideogram, cave paintings, architecture, and artefacts were chosen, as these areas usually contain symbols which are prominent to their surroundings. Further, this section is divided into sub sections, which traces Swastika according to time and space. This section also tries to consolidate and arrange all the evidences found for the symbol, which hasn't been done for this region before. This section also tries to shed some light for the connection between science and heritage parameters via the symbol of Swastika. Explanations for the evidences are explained not in a deterministic but in a probabilistic way. Swastika is also found in the form of mandala in architecture and planning processes, and banji in textiles. Various routes (trade and religion) through which the Swastika has travelled into this region are also explained. The universality of Swastika is valid in this region and it is generally used for the depiction of Buddhist and Vedic ideologies.

The Penguin Dictionary of Symbols

# **Swastika A Universal Symbol: Evidences from Southeast Asia**

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When taken in its spiritual sense, the swastika purely and simply replaces the wheel in Hindu iconography. It is, however, also the emblem of Ganesha, god of knowledge, and sometimes a manifestation of the Supreme Principle. Freemasons fall into a category of strictly observing cosmographical symbolism when they regard the centre of the swastika as the Pole Star and the four gammas which it comprises as the four cardinal positions of the Great Bear around it, which might help to elucidate Guenon's remark quoted above.

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Anshuman Dubey<sup>1</sup>, Kanthamani KH<sup>2</sup>, Stetson<sup>3</sup>, Sunil Kumar Prasad<sup>4</sup>, Sunny Bansal<sup>5</sup>

## Abstract

Swastika, a living paradox, has several interpretations and manifests auspiciousness, prosperity, good fortune, the sun, cycle of life, and so forth. The symbol has auspicious as well as decorative values. Various opinions prevail regarding its origin, functions, meaning, and elucidations. In Indian sub-continent it can be traced from pre-historic, Indus Valley, and Saraswati civilization till the present times. The symbol has imprinted its significant place in almost every ancient Indian design and communication like dakshinavarta, suvastika, tetraskelion, etc. It occupies all possible sites of expression in the material culture including sculptures, pottery, coins, etc. This section is an attempt to classify and describe the Swastika symbol as found in the remains of different dynasties over various time intervals in the present Indian subcontinent. This zone is of prime importance, in context of application and proliferation of Swastika, as it is the land of diversity depicting almost every trait of human civilisation. Besides the direct exemplification, the research highlights its depiction combined with other related symbols like Srivatsa, twin fish, lotus, wheel, Stupa, tree, Star of David, Serpentine Goddess (Kundalini), Nataraja, Charbagh, Ashoka's Pillar, etc. The exploration tries to consolidate that the reason for sustenance of Swastika over the centuries is not only cultural but also has scientific dimensions. The study also attempts to break the orthodox belief system confined to religious domain and reaffirms the universal concept of humanity and spirituality.

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**The Penguin Dictionary** of Symbols

# **Decoding an Enigma: Swastika in the Indian Subcontinent**

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### TIMELINE OF INDIAN HISTORY

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## INDUS VALLEY CIVILIZATION (2000-1000 BCE)

## Hieroglyph and local coins :

Swastika hypertexts appear in remarkable contexts of Indus Script 'Corpora'which proves the early significance of hieroglyph related to metal casters creation of new alloys during the Bronze Age.





- Swastika derives its semantics of the hieroglyph and rebus-metonymy rendering in Indus Script cipher.
- A large fraction of the Indus objects are of rectangular shape and have various types of geometric designs on them.





Town Planning

Chakravyuha

Swastika Fort Planning

## REIGN OF JAINISM AND BHUDDHISM (600-400 BCE)

The Swastika represents the Heart of the Buddha, resignation of spirit, all happiness that humanity desires, mind, and infinity.



## **Outer Mandala:**

In the Universe with its many galaxies and solar systems, one can see endless cycles of change playing out over the past, present, and future.

Inner Mandala: Kalachakra can be understood to be the very subtle structures of a person's body and mind, but also the dynamic influence that the mind/body complex has on the surrounding universe.



the entire cosmos.



Indian culture.



ent

lini energy.

four cardinals of the Swastika form.

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### BRITISH RULE(1829-1947)

Rudyard Kipling influenced by Indian culture, used a swastika on Rodgend Kalling his book cover.

### FREE MODERN INDIA (1947-NOW)

Sri Yantra comprised of nine triangles that are said to be symbolic of





Indian Architecture is influenced heavily by the principles of the Swadeshi movement and use ancient symbols like Swastika. Swastika is deep rooted in the



It has found its place in almost every aspect of life varying from currency, dance form.religious places, decoration0, differkind of arts, in the ceremonial activities, rituals

### PAKISTAN

The coins found are dated back from second and third centuries of Paratarajas.

### TIBET



The throne of Dalai Lama is decorated with Swastikas .Character of a Bön script called "Zhang Zhung" used as part of the character by turning anti-clockwise swastika.





Calligraphy art piece is made using the words young 'drung' to form the shape of swastika. The swastika, sun and moon are still key cosmological and religious symbols



## NEPAL

The Buddhist community believes city was planned in

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KIRTIPUR (INTERPRITATION OF SWASTIKA)





PROFESSION (1994) 1884 A March Day of The day Street Land

shape of the dharma chakra, which recalls Swastika. According to Vastushastra, it is Sarvatobhadra (Swastika Pattern). Where each of the quadrangles creates cyclic order.

## BANGLADESH

Symbols of human figures, artefacts, arms, and religious symbols like Swastika



### **SRI LANKA**

Swastika symbolises as Sun, a rotating disc ,and Chakra Yudhaya, a powerful weapon of Chakravarti .coins have tree inscribed on them, called a Bo-tree, which has religious significance to the Buddhists.

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### **AFGHANISTAN**

Silver coins of Vijavamitra in the name of Azes with 'triratna' symbol are found . A 'triratna' symbol on the pad of the big The 'triratna' symbolizes the three jewels of Buddhism - the Buddha, dharma, sangha



However complex its symbolism may be, the bare outline of the Swastika displays a rotary movement around a fixed CENTRE, which may either be the ego or the POLE. It is therefore a cyclical symbol of activity, manifestation and perpetual regeneration and it is in this last sense that it is often an accompaniment to images of such saviours of the human race as Christ, from the medieval catacombs in the West to the Nestorians of the steppes of central Asia



Abstract

The Swastika is an ancient symbol that was found in use in different civilizations in almost all parts of the world from the very beginning of human civilization. This section deals with the evolution of Swastika in central and west Asian countries comprising of Russia, Georgia, Armenia, Turkey, Cyprus, Syria, Jordan, Lebanon, Iraq, Saudi Arabia, Yemen, Oman, Iran, Turkmenistan, Uzbekistan and Kazakhstan. The origin of the Swastika is debatable as it is precisely not known to us. However the study of archeological findings has helped us to determine the timeline and the region where the Swastika symbol was utilized. It also becomes evident form the study that human migration had led to the transference of the Swastika to other places and as such is also responsible for the varied usage and interpretation of the symbol. The timeline for the evolution of Swastika is developed based on the study of migration of major races in the designated areas. Since time immemorial the migrants had settled which over time had spread into an empire and likewise had undergone changes in boundaries. These phenomena had made it susceptible to multiple layers of history. Migration of races, namely the Sumerians and lastly ending with the Russian invasion, had played a very important role in carrying forward the utility and message contained within the Swastika. In some regions at a particular timeline when the Swastika had helped the inhabitants to ascertain seasonal changes and cosmological findings, the same symbol had emerged as a sign for regeneration and life cycle, at another space and time. While one would find the symbol used as an auspicious sign and marked on relics, in another case it was utilized as a pattern to adorn cornices, walls and floors of mosques, churches, tombs, etc. The findings highlighted in this section will help to establish the connection between the regions in terms of beliefs, activities and identity of humankind.

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The Penguin Dictionary of Symbol

# **Evolution of Swastika** in Central and West Asia

Protyusha Saha<sup>1</sup>, Roshni Roy<sup>2</sup>, Sampurna Sikdar<sup>3</sup>, Siddhartha Panigrahi<sup>4</sup>, Shivangi Singh Parmar<sup>5</sup>

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Romanesque depictions of Christ were conceived in terms of the spiral or Swastika which harmonized the stance and dictated lines of limbs and drapery. This provided the means for the reintroduction of the ancient symbol, the whirlpool of creation around which are arranged the hier archies of created things emanating from it...



### Abstract

The Penguin Dictionary of Symbols

# Swastika's Voyage: Where it all started?

Ankit Sawale<sup>1</sup>, Radhika Chatterjee<sup>2</sup>, Sriya Banerjee<sup>3</sup>, Vidhi Sharma<sup>4</sup>, Vikas Nimesh<sup>5</sup>, Deepanjan Saha<sup>6</sup>

The journey of Swastika from its origin to today's world is filled with mysteries and broken links of evidences spread over different ages of civilization. This section discusses about the occurrence of Swastika in the study region encompassing the Baltic States, East Slavic states, the Balkans, and Eastern Africa. Each of these regions has a different ethnographic and socio-cultural fabric. From the mystic north, the land of Finland, Estonia, Latvia, Lithuania where some of the oldest tribes set abode to down south to the Ukraine, Romania, Bulgaria, Cyprus and Hissarlik, this culturally diverse region yields some of the oldest examples of Swastika in exemplifying the beginning of an enigmatic geometry. The evidences found in the study raise numerous questions in the mind, how did Swastika come into existence, what was its significance to the people. The answers that we are looking for are hidden in the history of the region and the evidences. They tell us the origin of Swastika, its evolution and possible migration pattern linking it to the other parts of the world. This section strives to answer the conundrum related to Swastika regarding its origins- whether it is endogenous or exogenous to the study area. The linkage of spiritual and cultural parameters with scientific phenomenon is the key objective of the research. These cultural parameters and scientific parameters are arranged in a form of a consolidated matrix where the evidences are classified by the region they belong to. This matrix will give us a broader view on the answers that we are looking for.

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As a development of the created universe, it is associated with those major creating or redeeming personages mentioned above; as a development of a human reality, it may well express the furthest development of secular power, which would explain why the swastika was an attribute of Charlemagne and of Hitler. Here again we must pause to take into account the direction in which the swastika rotates. If this is in the path of the Sun, cosmic and linked to the transcendent, then it is Charlemagne's; if it is in the opposite direction, widdershins, attempting to set what is infinite and holy within the finite and the profane, then it is Hitler's swastika.



### Abstract

The Penguin Dictionary of Symbols

# **Interpretation of Swastika** in Western Europe, **Mediterranean** Countries and Sub-Saharan Africa

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Debapriya Chakrabarti<sup>1</sup>, Eklavya Koshta<sup>2</sup>, Kartik Kashyap<sup>3</sup>, Shiva Kshirsagar<sup>4</sup>, Shrishailya Kote<sup>5</sup>, Mouli Majumdar<sup>6</sup>

Although the most primitive Swastika (known as Fylfot in Western Europe) till date has been found in the Balkan region, which is modern day Ukraine, the dominant discourse states the spread of Swastika through a migration of the settlements pattern from this area through Asia Minor to the Mediterranean region and further to the West and North-West of Europe. Hence the first aspect of this section is an endeavour to establish the spread of Swastika as probable evidence to support this discourse. The study area is a longitudinal distribution of the globe which covers a varied historic background and diverse regional setting. The second aspect of this section also aims at the evolution of Swastika symbol over this varied spatio-temporal framework and how this symbol is embedded in the heritage and socio- cultural ideology of the people when seen through an overlay of scientific parameters. In other words, the plethora of evidences found in these regions has been arranged in the form of matrices with respect to the time period these date back to. Further, these region-wise matrices have laid the base for analysis of the evidences found from a scientific approach. Western Europe being largely affected by the atrocities of the World War II, the most recent perception of Swastika among the people completely negates the previous use of the symbol in cultural beliefs and rituals of well-being. Finally the contemporary approaches to revival and reuse of the Swastika symbol in Europe have also been addressed.

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The ancient Carthage, the Phoenician colony around 813 BCE along the Northern Africa bordered by the Atlas Mountains.



Tanit, or Tanith, the Mother Goddess of Carthage ruled over the Sun, Stars, and Moon.She was invoked for fertility. Her name means "Serpent"





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One of the oldest symbols in existence is the Swastika, and it is one of the most widely spread, from furthest East Asia to Central America, via Mongolia, India and northern Europe. It was wellknown to Celts; and Etruscans and to Ancient Greece, so that the so-called Greek-key pattern derives from it. Some writers have tried to take it back to Atlantis, which shows its great antiquity.



Gaurab Das Mahapatra<sup>1</sup>, Rahul Ranjan<sup>2</sup>, Md. Saddam Hussain<sup>3</sup>, Shivani Singh<sup>4</sup>, Arpan Paul<sup>5</sup>

### Abstract

Often during the study of Swastika's roots, it may be observed that a sequence of events or linkages have indiscriminately occurred around a wide range of timeline as well as across several civilizations, often involving geographic diversification too. Probably these coincidental events are manifestations of an enigmatic thread, which is: scientifically balanced, culturally measured and socially intended. There are some specific dimensions which are to be nurtured and analysed for the intended understanding of the Swastika under the methodology adopted for this section. The objective of the whole program is to establish connections between the relatively smaller paradigm of space and the broader paradigm of Swastika. A number of theories also support the movement of Swastika worldwide and connections to even what is beyond visible world. There will be a methodical probe into this aspect as well, but under the realm of this section's spatial extent, which are parts of: Latin America, Western Africa, Northern Europe and lost kingdom of Atlantis. The intended end result shall seek that whether or not, the spatial and temporal changes thus studied in the realm of Swastika, has been synchronised with the factors of Space, Time period, Genre, Embedment, Epistemology, Ideograms and Numismatics. The clandestine intention is also to create Swastika into a probabilistic attribute rather than a deterministic parameter in the history of human civilization by using the methodology in this research leading to even further and deeper trait-based analysis, making the present study a mere base for its work. Thus, Swastika might be a perfect example of how science and heritage has been in the realm of our existence in a coherent, harmonic and symbiotic manner.

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The Penguin Dictionary of Symbol

# The chronicles of Swastika

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Number symbolism helps to understand better the sense of the power of aggregation conveyed by this symbol. The swastika consists of a CROSS quadrupled, because each of the four arms extending from the centre has a further extension pointing in the direction in which it rotates. Its numerical value is therefore FOUR times four, or sixteen, and is the evolving power of reality or of the universe.





Swastika is a timeless symbol which has been present worldwide since 12000 BCE. This section gives a brief idea about presence and use of Swastika in the Americas. A timeline based on presence of Swastika in different cultures and civilizations at different time periods has been given for overview. A parametric approach has been taken for the study to arrive at relation between the cultural uses and scientific reasons behind them. An attempt has been made to understand the scientific reasons for various uses of the symbol and the variation/ relation in the beliefs of different cultures. The main cultures & civilizations for which study has been conducted in this section are Maya Civilization, Hopewell Culture, Hopi Culture, Navajo Culture, Aztec Culture, Inca Culture. The study of various aspects by the adapted methodology suggests that there were various scientific reasons behind use of the symbol. The symbol might have come into existence by tracing the pattern formed by Ursa Major around the pole star in various seasons of the year. The astrological reasons were the most important one and were common in most of the places. The common and similar beliefs in various civilizations suggest cultural exchange or continuity between various civilizations. The relation between scientific and cultural parameters suggests that there were scientific reasons behind the use and continuation of the symbol. The symbol has been used as a sign for positive energy, good luck, worship, war symbols, healing rituals, craft works etc. in this geographical region during different time periods. Despite of varying forms, use and beliefs, the concept behind the symbol remains the same, i.e. cyclic movement between phases.

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**The Penguin Dictionary** of Symbol

# **Heritage and Science** behind Swastika in Americas

Paritosh Kumar<sup>1</sup>, N. Tagore Sai Priya<sup>2</sup>, P. Krishna Vamsi Teja<sup>3</sup>, M V S Priyatham<sup>4</sup>, Vidhu Pandey<sup>5</sup>

### Abstract

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## INTRODUCTION

Swastika is an eternal symbol which has been used in various parts of the world at different time periods since the beginning of human civilization. Many evidences have been found in the Americas for the use of swastika during different time periods. The focus of the study is to find the use of Swastika in North, Central and part of South America.



## CONCEPTUAL FRAMEWORK AND METHODOLOGY

Various Swastika Origin and Migration Spatiosymbols and their of Swastika temporal study usage (culture-wise) Cultural and Scientific Relation between Correlation **Cultural and Scientific** between the reasons parameters (matrix) Parameters (Parametric approach)









## SPATIO-TEMPORAL STUDY

### MIGRATION OF SWASTIKA



HOPEWELL CULTURE 200BCE-500 CE South East United States, South East Canada, Along Mississippi MAYAN CULTURE 2000 BCE -1539 CE South East nexico Gautemala Belize

INCA CULTURE 1400 CE-1550 CE Peru, Chile, Ecuador, Colombia.

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# VARIOUS FORMS OF SWASTIKA





**BCE - 900 CE** Mayan Swastika and Galactic Butterfly Swastika

Hopi Culture (500 CE - 1100 CE) Mother Earth Symbols of Hop



ztec cultur (1300 CE -1500'S CE) Aztec Swastika



### EVIDENCES



### HERITAGE PARAMETERS H-A [Rituals]

11-74	[muais]
H-A1	Birth and Death
H-A2	Worship
H-A3	Curing Disease
H-A4	Presence in Te
H-B	[Aesthetics]
H-B1	Pottery/ Basket
H-B2	Rock Carvings,
	Sculptures
H-B3	Embossing on
	Copper & Shell
H-B4	Sand Paintings
H-B5	Architecture
H-C	[Social]
H-C1	Warfare
H-C2	Stages of Life
H-C3	Good Luck

### SCIENTIFIC PARAMETERS

	S-A	[Astron
	S-A1	Moveme
	S-A2	Moveme
	S-A3	Calenda
	S-A4	Time Cy
	S-B	[Physic
1	S-B1	Four Dir
	S-B2	Change
	S-B3	Four Ele
	S-C	[Forces
	S-C1	Turning
	S-C2	Moveme
	S-D	[Biologi
	S-D1	Life Cyc
	S-D2	
	200	living being

## PARAMETRIC APPROACH

H-B

H-C

100

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0.1

### DEGREE OF RELATION

0.33

CORRELATION GRAPH

ath Rites se Femples		S-A	S-B	S-C	S-D	MAYAN	NAVAJO CULTURE		S-A	S-B	S-C	S-D
	H-A	0.44	0.42	0	0.38			H-A	0.38	0.58	0.25	0.5
	H-B	0.15	0.2	0.05	0			H-B	0.1	0.27	0.1	0.1
Chiples	H-C	0.2	0.22	0	0.33			H-C	0.25	0.33	0.17	0.33
tets etc.	-										-	
IS/		S-A	S-B	S-C	S-D				S-A	S-B	S-C	S-D
n	H-A	0.13	0.08	0.17	0	HOPEWELL	AZTEC	H-A	0.44	0.33	0	0.25
ells gs	H-B	0.1	0	0.1	0	CULTURE	CULTURE	H-B	0	0.2	0	0
	H-C	0.33	0	0	0.33			H-C	0.33	0.11	0	0.33
						_						
e'		S-A	S-B	S-C	S-D				S-A	S-B	S-C	S-D
	H-A	0.19	0.25	0.25	0.25	НОРІ	INCA	H-A	0.3	0.15	0	0.1
	and the second second	1.		1 2 - 2 - 2	1.14			- 1.46.0 m / / / / /	and the second sec	THE DRIVENESS OF		

CULTURE

CULTURE H-B

-

-

- Barriel

H-C

nomy] nent of Stars nent of Sun ar System vcle

### cal Environment]

rections e of Seasons ements

### Motions

nent of Water

nent of forces in ina

### Physical Environme -------4 41 14 . . .

0

0.3

0



X-axis = Cultures	
1 - Maya Culture	4 - Aztec Culture
2 - Navajo Culture	5 - Inca Culture
3 - Hopi Culture	6 - Hopewell Culture
Y-axis = Relation mat	

0.15

0.33

### CONCLUSION:

The presence of Swastika in different cultures and civilizations suggests that there was cultural continuity and between various civilizations and across whole time period. The relation between scientific and cultural parameters depict that there were scientific reasons behind the socio- cultural practices involving Swastika and not only blind beliefs.

0.25

0.17

0.2

0.17

0.1

0.17

87 .... Another form has each arm ending in A KEY, a clear expression of key symbolism, the vertical axis corresponding TO priestly office and the solstices and the horizontal to kingly office and the equinoxes



Navneet Singh<sup>1</sup>, Nishant Prakhar<sup>2</sup>, Subhalina Das Gupta<sup>3</sup>, Vikrant Sanke<sup>4</sup>, Suparna Dasgupta<sup>5</sup>

### Abstract

The meaning and the usage of the word 'Swastika' has been interpreted and reinterpreted across various countries but in the later period it has been recognized as 'Swastika' (In Sanskrit). In this section, the purpose of the research is to find the relevance of Swastika in the Pacific region based on the regions - Alaska, Hawaii, Fiji, French Polynesia, Easter Island, New Zealand and will also cover other regions that has a similar ethnic connection. The research was carried forward using secondary source. This portion is comparatively more active geographically as it lies on the Pacific Ring of Fire, hence, most of the evidences that could have been a major source of inspiration were either washed away or destroyed. However, a linkage has been established with the remaining evidences. In this research it has been noticed that Swastika is embedded in the culture of the natives of these regions and has been used as a symbol of good luck, welfare, prosperity or victory. These symbols have been used rationally to impart a scientific meaning as a way to show their connection to the Nature. Starting with the introduction and historical timeline of the settlements, the section will move towards the research methodology and framework. Finally it will focus on the evidences that has been noticed across these portions and will try to establish the relation of the evidences with Swastika.

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The Penguin Dictionary of Symbol

# **Saga of the** Pacific

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NEW

ZEALAND

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HAIDA NATIVE ART BUTTON BLANKET-STYLIZING ANIMALS AND NATURAL RESOURCES

There has been various interpretations and reinterpretations of the symbols- the straight line, the circle, the cross, the triangle and each time the meaning has come out as a new discovery, or has acquired different meanings when passed on among different people, or has picked up altered meanings among the same people and sometimes it has been left without settling for a definite meaning.



EXPANSION PULSES

PACIFIC OCEAN

POLYNESI

BERING STRAIT.

KANAKA MAOLI -REPRESENTS UNITY, GROWTH, REBIRTH & CONNECTION TO THE EARTH, STRENGTH & PROSPERITY

EASTER ISLAND

MARQUESAN CROSS TATTOO-USED SYMBOLISES BALANCE BETWEEN ELEMENTS AND HARMONY (SUN, MOON, EYE & SACRED GEOMETRY)

**RONGORONGO SCRIPT** 



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TA MOKO (MAORI TATTOO)-POTRAYS ANCESTRAL TRIBAL MESSAGE, KNOWLEDGE, VALUES, AND TRADITION

As quoted rightly by Thomas Wilson, "The Swastika was probably the first to be made with a definite intention and a continuous or consecutive meaning, the knowledge of which passed from person to person, from tribe to tribe, from people to people, and from nation to nation, until, with possibly changed meanings, it has finally circled the globe" (Wilson, 1896)



# Glimpses of Exhibitions at ICCR Kolkata









# SandHI

Deep Ecological findings, Laboratory and Field Exploratory based observations on various themes

September 11 - 13, 2015 at Indian Council for Cultural Relations, Kolkata









## **The Exhibition**

The culmination of six weeks of summer internship programme brought with itself a golden opportunity to exhibit and unveil the outcomes on a suitable public platform. In September 2015, an exhibition was held at ICCR (Kolkata) on the theme, "SandHI – Deep Ecological findings, Laboratory and Field Exploratory based observations on various themes". The exhibition showcased the progress of all the projects under SandHI and proved to be a major success in outreaching the masses. Similar exhibition and publication was planned for the works on Swastika hence the arduous effort by interns was exhibited on similar lines in ICCR.



# Swastika An exploratory exhibition on the pattern and ideogram of the universal principle of sustainability

in collaboration with

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Indian Council for Cultural Relations (ICCR), Kolkata

The exhibition was held at ICCR (Kolkata) from July 8th to 10th 2016 along with the launch of publication on the theme "Swastika-An exploratory exhibition on the pattern and ideogram of the universal principle of sustainability". Exhibition was organized in the two galleries of ICCR i.e. Bengal Gallery and Abanindranath Gallery. The exhibition began with a big panel portraying all the nine themes of the exhibition in consort with a short film on the loop. Also, a magnificent column adorned the entrance; with the various renditions of Swastika found across the globe; displayed upon itself. It was capped by the National Emblem of India, Lion Capital of Ashoka at Sarnath.

The exhibition began with basic synoptic panels which gave an overview to exhibition and a new perspective of research to this symbol that is, The Swastika. Following that, the nine geographical divisions were introduced on the world map and the exhibits were displayed in the same sequence as arranged in the galleries as depicted in this monograph, starting from the Eastern world till the West and Pacific.

The present Monograph is a sequel to the first book 'Exploring the pattern and ideogram of Swastika – a universal principle of sustainability', which was published on the day of inauguration of an exhibition at ICCR, Kolkata. The present book has substantiated the most important evidence: that the imagery of Swastika in India is over 11000 years old and it is particularly evident in the ancient Rock Art forms of the Malwa plateau, Madhya Pradesh. A first set of panels emphasizing the scientific construct of Swastika and the subsequent 18 panels presenting a 9 phase global exploration of the semantics and semiotics of Swastika has been sequentially presented. Finally, here through a pictorial coverage of the exhibition on Swastika, in collaboration with the Indian Council for cultural Relations (ICCR), Kolkata, the core importance of the SandHI dissemination and outreach initiative is evident.

The present compendium is a wonderful work of a team of brilliant minds which was exhibited at Indian Council for Cultural Relations, Kolkata. They are a collation of summer interns from IIT Kharagpur, IIT Roorkee, NIT Rourkela, NIT Calicut, SPA Bhopal, SPA Delhi, CEPT Ahmedabad, Jadavpur University and other premium national institutes. The book presents nine explorations, which are the works of young vibrant minds - fresh, open, unadulterated and free. Each piece had been presented in a format differing slightly from the other, keeping the spirit of an open ended exploration on perhaps the most ancient and interconnected of all symbols that have interconnected the global culture, religions, sciences and civilization as a whole. We know it by the name Swastika.

# SandHI SWASTIKA

An exploratory exhibition on the pattern and ideogram of the universal principle of sustainability

July 8 - 10, 2016 at Indian Council for Cultural Relations, Kolkata

*in collaboration with* Indian Council for Cultural Relations (ICCR)

Day 1





## Inauguration

Day one of the exhibition started in full swing with great enthusiasm showed on each part by the participants as well as the visitors. Generally iconography is a field which ensures a dominant presence of people from social sciences' background; hence a scientific organization presenting its take on the much celebrated symbol had a unique charm in itself. It thus pulled crowd from diverse sections of people, be it students, art connoisseurs, researchers, professors, or an average citizen for whom Swastika is an auspicious religious symbol and harbinger of good luck.

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The inauguration was scheduled later in the afternoon but exhibition was opened in the morning itself which allowed people to see the work done by summer interns and their perspective on various origin theories. Many school children visited on the first day for which mini tours of the exhibition were organised. The panels were lucidly illustrated by the interns to various visitors which addressed their general and specific queries alike. An overview of exhibition was explained by Prof. Joy Sen from time to time in association with research scholars who participated in the internship.



The inauguration ceremony was graced by the presence of numerous eminent guests like Swami Suparnanandaji Maharaj, Secretary, The Ramakrishna Mission Institute of Culture, Golpark; Professor Sunanda DasGupta, Dean (SRIC), IIT Kharagpur; Prof. B. M. Deb, renowned Indologist, ViswaBharati; Sri Goutam Deb, Regional Director, ICCR, Kolkata; Smt. Madhabi Bhattacharya, Director (Cultural Division), Gorky Sadan, Kolkata and many others. The presence of Mrs. Barnali Chakrabarti (Mrs. PPC, Director IIT Kharagpur) in the inauguration function at ICCR made the event more graceful, brighter and benign!

The published living evidence of the internship and exploration of the Swastika in the form of a book was also launched at the same time. Cultural performances from different scholars and interns in the form of dance, poetry and music also took place.



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# SandHI SWASTIKA

An exploratory exhibition on the pattern and ideogram of the universal principle of sustainability

July 8 - 10, 2016 Indian Council for Cultural Relations, Kolkata

in collaboration with Indian Council for Cultural Relations (ICCR)



## **Dr. Harimohan Pillai's Lecture**

Dr. Pillai is a renowned architect and a visiting faculty at various institutions. He is a pioneer among the researchers, who are trying to bring back the knowledge of Indian Traditional architectural past into the contemporary world. His PhD research dealt with evolving an architectural design methodology of adaptation of traditional design systems and details as linkages from past in the context of Kerala, to understand how modern houses, more adapted to human and environmental realities can be designed and built to create a 'Post-traditional' built form. The Scarlet Shakti band of three sandhi summer Interns girls (CEPT Ahmedabad and IIT Kharagpur) in full form at ICCR Kolkata on the occasion of closing cultural function July 8 2016.

The second day of the exhibition started off with the same continuity of fervour which was omnipresent on the opening day. The highlight of the day was a lecture by Dr. Harimohan Pillai, renowned Architect, Indologist and Alumnus, IIT Kharagpur along with visit of over a 1000 school students, media persons and enthusiasts. Renowned Professor of Economics Dr. Mahalaya Chatterjee also graced the exhibition. Dr. Irina K Bashkirova Consulate General of Russia also graced the gathering on the second day.



## **Cultural Program and Closing Ceremony**

The third day of the event was marked by cultural performances in the form of audio visual presentations by the artists and professors from Visva Bharati, Santiniketan coordinated by Prof. Swastika Mukhopadhyay, Head, Sangeet Bhavan, Visva Bharati, Santiniketan and conception, script narration and related visuals by Sri Arunendu Banerjee, Director, STS Systems, Kolkata; Member, EB, Visva Bharati, Santiniketan; and Advisor, RCGSIDM, IIT Kharagpur. The wonderful and heartfelt closing cultural program at ICCR Kolkata on July 10 2016 at Satyajit Roy Auditorium was entirely scripted and choreographed by Sri Arunendu Banerji. Renowned Artist and Esraj Player Shuvayu Sen Majumdar (National music award winner of BELA SHESE) prepared the cultural program on the 3rd and last day at Satyajit Ray Auditorium, ICCR, Kolkata.

Introduction to the programme was carried on by the principal investigator of this project whereas welcome address was given by Pallab Dasgupta, Associate Dean, SRIC. In the later part of the programme, following plenary talks were held:

- Sri Goutam De, Regional Director, ICCR, Kolkata
- Prof. Pabitra Sarkar, Former Vice-Chancellor, Rabindra Bharati University, Kolkata
- Dr. Nirmalya Narayan Chakraborty, Renowned scholar (Indology), Rabindra Bharati University, Kolkata

Vote of thanks was given by Dr. Harimohan Pillai, Alumnus, IIT Kharagpur along with the distribution of internship certificates to the interns and mentors. The grand Finale of the exhibition also showcased cultural performance like Ekti Jyotir rekhaye (A sustainable flow of divine life, light and consciousness). One of the most gratifying responses was from several enthusiasts, admirers and over 1500 students who visited the exhibition for two to three days. The overwhelming response to the exploration promised the sustainability and continuity of more extensive and deep related researches, authenticating the concept of Swastika.





माञकारगत अहित्यमनः प्रक्तिक क्रियमत नगर >> इत्यान नगवा आर সভাৱাৰ আনেত আছে খেকেই এর ব্যবহার শুরু হয়েছে। এমনকি কর্তেদের থেকেও প্রাচীন। ওণ্ তা-ট নয়, আনক অজ্ঞানা প্রাচীন লিলিনিবেদর মর্থ এখন জানা বিধ্যেত্ব এবং প্রতিনিবই ন্যাল্যা করা হয়েছে বৈজ্ঞানিক পদ্ধতি নেনে। বা ছাড়া চাজার বছর আগে সনাতন ভারতীয় জীবনগৈলী চিত কেমন ছিল, তা আৰও ভাপভাবে জানার সমোগ তৈরি হয়েছে। জানা গেছে, বহু উপাদাদের পনবাবহার হত সে-সময়। তথ্ এটুকু বলালেও বিষ্ণুই বলা হয় না। প্রাচীন ভারতের জীবনাধারণের বাস্ত্রণ চিরটাই হলে খনতে এখন বেশ বিদ্য নতন পদক্ষেপ করা হয়েছে। নতন প্রহাগ্যের কাছে, বিশেষ করে শিত-পভূয়াদের কাছে এই সম খনর পৌরে দিতে কলকাভায় হচ্ছে विताइ अम्बनी। आहे जि मि आत-या याहे आहे हि प्रार्थत तका ছাৰঙ সতকাতেৰ মানবসম্পদ উল্লেন নছৰেৰ যৌথ উদ্যোগ্য হবে এই প্রদর্শনী ও কর্মশালা। ওর দেখা নয়, বিশেষজ্ঞানের থেকে মনেক। কৌতহল নেটানোরও সবোগা মাকবে। ৮ জলাই হতে-চলা এই প্ৰদৰ্শনীৰে মিৰে বসৰে চাঁচনৰ হাট। উদ্যোগন কৰবেন বামকথা মিশৰ গলেশ্যকের সম্পাদক স্বামী স্পর্ণানন্দরি। যাককেন র্বীক্ষেয়ারই। বিশ্ববিদ্যালয়ের উপাচার্য নন্যসাচী রায়টোখুবি, আই আই টি খাজাপবের প্রাক্তন অধিকর্তা আর বে ব্যানার্জি-সহ অনেজে।

৩৬ বর্ষ ১০৬ সংখ্যা ২৪ আষাঢ় ১৪২৩ শনিবার ৯ জুলাই ২০১৬

থক্তাপুর আই আই টি আয়োজিত 'ৰস্তিকা' প্রদর্শনী যুরে দেখছেন গোলপার্ক রামকৃষ্ণ মিশনের সম্পাদক স্বানী সুপর্যানন্দ মহারাজ। গুরুষার, আই সি সি আর-এ। ছবি: বিজয় সেনগুপ্ত

स्वान्तक म स्थायत्व की प्रतीकात्मकत

कोलकाता : हिन्दू परंपरा में स्वस्तिक निशान को पवित्र माना जाता है। इन सहित अन्य जगहाँ पर अंकित किया जाता है। इसका वर्णन हमारे पुराणों तलाश में जुटे हैं कि कहीं समकालीन विकास, पर्यावरण व जैविक तंत्र के व वैज्ञानिक आधार तो नहीं है? क्या कोई ऐसी भी चित्रलिपि हो सकती है ज के सारनाय में धम्म चक्र के पीछे बदलाव का कारण तो नहीं है? इन सभ सीईपीटी, एसपीए, जादवपुर विश्वविद्यालय से जुड़े 50 शोधार्थियों की टीम इस प्रयास संधि को इंडियन काउंसिल फॉर कल्चरण रिलेशंस में आयोजित गया। आईआईटी खड़गपुर के शोध छात्र व शिक्षकों को जहां व्युत्पत्ति-विष

है। संधि के प्रिंसिपल इन्वेस्टिगेटर जय सेन के अनुसार 'शांति-स्वस्त्यन' से पश्चिमी साहित्य के दो शब्दों सैनिटी/सैनिटेशन व सस्टेनेंस नामक दो शब्दों की उत्पत्ति हुई हो जो इंडो यूरोपियन शब्द का वर्गीकरण है।



कोलकाता : आईसीसीआर ने आईआईटी खड़गपुर के साथ मेलकर एक प्रदर्शनी आयोजन किया। इस प्रदर्शनी में पौराणिक चिन्ह स्वास्तिक वे बारे में विस्तार से बताया गया। प्रदर्शनी का नाम 'स्वास्तिका रखा गया है। 9 विभिन्न शिक्षण संस्थानों, जिनमें कोलकाता क विश्वविद्यालय जादवपुर शामिल है, के छात्रों ने काफी रिसर्च करने के बाद स्वास्तिक चिन्ह के महत्व और विश्व इतिहास में उसकी उपस्थिति के बारे में बताया। इस दौरान मुख्य अतिथि के रूप में रामकृष्ण मिशन के स्वामी सुपर्णानंद महाराज के अतिरिक्त विभिन्न कॉलेज के कई प्रसिद्ध प्रोफेसर भी उपस्थित थे।





যন্তিক চিহন আসলে ২২ হাজার ৰছবেরও প্রোনো। ভারত সরকারের সন্ধি প্রজের্টের আগুতায় একটি বেষনার দাবি অস্তুত তাই ৷ আই আইটি গভগাপুরের অধ্যাপক ভাষ সেনের নেড়াৰ একটি দলের দাবি, জনেতায ভগতে জন্ম নেভয়া এই চিহা মধ্য ভ পশ্চিমি সভাতায় চালান হয়েছে। যা নিয়ে আইসিসিয়ার প্রেক্ষাগৃহে হার হয়েছে প্রদর্শনা। শুক্রাবান উল্লোধনে উপস্থিত ছিলেন রামকৃষ্ণ মিশন ইনস্টিটিউট অফ কালচারের সেকেটারি স্থানী সুপর্ণানন্দ মহারাজ, রনীজভারতী বিশ্ববিদ্যালয়ের উপাচার্য স্বাসাচি বস রায়চৌষুরী-সহ বহু বিশিষ্ট নাগরিক।





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### YOUNG BENGAL

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(ardia)

र्वजनात

RCECE A

চলবে অ

সাংস্কৃতিন

এই সময়৷ ভারতীয় সম্বেতির সলে যুক্ত

ک سامی اورو اور این این است من می ای اے (جو پال اور دلی ) اور جادو اور این یو نی در می اور اور این یو نی در می بر اندروای مرد این مرد می مرد بر است اورو این مرد این مرد این مرد این مرد این اور این اور این اور این اور این او این در این می کلو یہ تی تری اس کی نماش کی گو سا منے لایا کیا تھا یعنی پرانی دوایا ہے اور قرار دکھا کی تھا۔ اکری بیشن میں اس کی نماش کی گئ

## স্বস্তিক চিহুর পরিচিতি আদিযুগ থেনে আবা মালা, বা বিশ্ব সমায়,

छटन छन् सालकहे नह, रहा मुक्लिमान् अलिया स्टा त्र का का त्राय, या क अपर अनिष्ठम अनिहा, अनिष्ठम देखेरवान, मना अत्र कार्यावक प्राप्त स्वान, जाहाता व्याप्रिका जा जान्या के कार्यावक प्राप्त कार्यावक সাহারা-আহিন্চা বা আমেরিকার বিশ্বীর্ণ প্রকলা তেলা এলে প্রায়িম্বান থেকে আনিপতা ছিল এই বন্ধিক চিহেন্দ্র। কেন্দ্রীয় : নর মাজ্য হাশরাইটাবে মাজলে अण्यत हिंहारान स्टाक-चेत्र सकह चनुपाती सं कार्यात किरामहा-३६ दृष्टी जादग्री किर्मारण स्टाक-चेत्र सकह चनुपाती सं कार्यात्म स्टाइन्डियात्व ভারতীয় বিজ্ঞানের সঙ্গে বর্তমান বিজ্ঞানের এ বোগসুর গড়ে তোলার প্ররোজনীয়তার কথা ভাবা হরেছে। সেই সূর ধরে গ্রারজ্ঞা করি

### संधि प्रदर्शनी संघन्न

कोलकाता. स्वास्तिका के उत्थान और इससे जुडी संस्कृति व इतिहास की जानकारी इकट्ठा करने के लिए विभिन्न आइआइटी, एनआइटी, सीइपीटी(अहमदाबाद), एसपीए (भोपाल व दिल्ली), जादवपुर विश्वविद्यालय के 50 से अधिक इंटर्न एक साथ आये हैं. विज्ञान व विरासत प्रयास, 'संधि' के तहत स्वास्तिका से जुड़े सवालों के जवाब उन्हेंने एक प्रदर्शनी के जरिये दिया. इंडियन माउंसिल फॉर कल्चरल रिलेशन में गत आठ जुलाई से शुरू हुई यह प्रदर्शनी रविचार को संपन्न हुई. स्वास्तिका से जुड़े विश्व भर की विरासत को प्रदर्शनी में संजोधा गया. यह माया सभ्याता से लेकर ऐजटेक तथा सिंधु घाटी सभ्यता से लेकर प्लैटों व पाइथोगेरस को प्रभावित करनेवाली स्वास्तिका की जानकारी यहाँ दी गयी. पूर्व से पश्चिम तक की

স্বস্তিক চিহ্ন নিয়ে আলোচনাচক্র আইসিসিআর-এ নাজনৈতিক সা পাৰত বিধ মানহাত নাজনিতে আপতেটোত কা ধনী মানলোক বিশ কিছ ধনী পালেকে বিশ্বনি বহুলে প্ৰেক ফুল প an upper finities and an and in the same the assessed and line of a lot of the second states NAME ADDRESS AND ADDRESS ADDRE Data could confin stone-one land some call from state SPICE BUT I AN AREA WEEK Seatures also unde contrares should should will be all a state of the sta ingle pier first willows and MADOLE VE ALCO DATE IN THE R. HAT ADDRE ARE BOORD LIFE'S THE GLOBALBENGA survey with the story persons and a state when a state of THE CALS NEEDER AND AND

াজকালের প্রতিবেদন: ভারতীয় শান্তে বর্ণিত শান্তি আর নিরবচ্ছিন্নতার প্রতীক ন্ত্রিক' প্রায় ১১ হাজার বছরের পুরনো। আর্য সভ্যতা, সিন্ধু সভ্যতার মানুষদের শালাশি অন্তিক চিহ্নের ব্যবহার করতেন মধ্য-প্রাচ্যের মানুষও। সাহারা-ফ্রিকা বা আমেরিকার বিস্তীর্ণ অঞ্চল জুড়ে ছিল স্বস্তিক চিহেন্ব আধিপতা। ১২ গর বছর আগে পুরনো প্রস্তর যুগে ইউক্রেনের মানুষও এই প্রতীক ব্যবহার তন। প্রাচীনতম চিত্রলিপি হিসেবে স্বস্তিককে ঘোষণার দাবি ইতিমধোই উঠে ছে। খড়াপুর আই আই টি, এন আই টি, সি ই পি টি (আমেনাবাদ), যাদবপুর গকাতা বিশ্ববিদ্যালয়ের ৫০ জন শিক্ষানবিশ 'সন্ধি' কর্মসূচিতে স্বস্তিক নিয়ে ধায় অংশ নিয়েছেন। তাঁদের পাওয়া তথো উঠে এসেছে স্বন্তিকের বিবর্তন, র্গনের সঙ্গে বিজ্ঞান কীভাবে জড়িয়ে রয়েছে। এ নিয়ে একটি প্রদর্শনী হয়ে

াই সি সি আর-এ। তিন দিন ধরে এই প্রদর্শনীর মূল দায়িতে ছিলেন অধ্যাপক জয় সেন। রোজই এসেছিলেন স্কুল, কলেজের পড়ুয়ারা। সমাস্তি অনুষ্ঠানে ছিলেন শিক্ষাবিদ পবিত্র সরকার-সহ বিশিষ্টরা। রবীন্দ্রনাথ ঠাকুরের পরিবেশ, বাস্ততন্ত্র এবং প্রাকৃতিক ঐতিহোর ভাবনা নিয়ে সাংস্কৃতিক অনুষ্ঠান একটি জ্যোতির রেখা' অনুষ্ঠিত হয় এ দিন।

কলকারার মাই নিনিয়ান এ মৃত্যিক সম্পর্কিত মহলোচনাচকের উদ্যোগন করছেন বিশিষ্ট মাহিমিল। ছবি- মালিম্য কর্মজার





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## Background and Past Activities (Year 2000 - till date)

**Background: Exhibition on MadhuVidya** (Doctrine of Ecological Correspondences): 1999 - 2005

Swami Smarananda, Vice President, RKM. Belur Math

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Government of India



Sri Jagmohan, Union Minister of Culture, Architect A. P. Kanvinde experiencing the exhibition at the India Habitat Center



Vice Chancellor of Rabindra Bharati University Prof. Subhankar Chakraborty and Vice Chancellor of Visva Bharati, Prof. Dilip Sinha experiencing the exhibition



Prof. Ashesh Maitra, Director, SPA, New Delhi experiencing the exhibition



Dr. Murali Manohar Joshi, Union Minister, Human Resources Development, Government of India experiencing the exhibition





### **Progress till date: Creative Economy and Traditional Knowledge systems (2015)**



International collaboration with Nikken Sekkei Research Institute, Japan (top let); with Officials of Kyoto Municipal Corporation and Kyoto University, Japan

**Progress till date: Honourable Prime Minister Sri Narendra Modi** experiencing the Science and Heritage **Initiative and Project Varanasi** (collaboration between IIT BHU and **IIT Kharagpur)** (Pre-BHU Convocation event, **February 22, 2016)** 



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### **Project Coordinator and Principal Investigator**



Joy Sen

### Core Team

















Apala Sarkar Ghosh

Joy Sen

# Team SandHI

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Sunny Bansal

Vidhu Pandey







Mouli Maiumdar Arpan Paul Deepanjan Saha



Suparna Dasgupta

Tanima Bhattacharya Shreyas P. Bharule Shivangi S. Parmar



### **Graphics Support**







Tanima Bhattacharya

Navneet Singh

Shivangi S. Parmar

### Technology Gymkhana Team





Oindrilla Bose













Utsav Putatunda

Saswati Dey

Tushar Kanti Saha

Sadhana Naskar

Preeti Pal

Arundhati Patnaik Samiran Dhar

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### Preface - Shreyas P. Bharule Swastika is Pre-Aryan invasion, dates back 11000 years in Vedic India: Evidences & Explorations **Key Graphics Support** Tanima Bhattacharya Preamble - Joy Sen & Sunny Bansal Key Graphics Support - Tanima Bhattacharya 9 Explorations - SandHI Summer Interns of 2016 & Hirak Chowdhury, Utsav Putatunda, Oindrilla Bose, Saswati Dey, Tushar Kanti Saha, Sadhana Naskar, Arundhati Patnaik, Preeti Pal, Samiran Dhar, Apala Sarkar Ghosh and Joy Sen

Glimpses of Exhibition at ICCR Kolkata - Sunny Bansal

### **Team of Interns**



Subhalina Das Gupta CEPT University, PG CEPT University, PG SPA Bhopal, PG



Nishant Prakhar IIT KGP. PG



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Within its mystical precincts lies the master-key which opens the door of every science, physical as well as spiritual. It symbolizes our human existence, for the circle of life circumscribes the four points of the cross, which represent in succession birth, life, death, and IMMORTALITY.



H. P. Blavatsky The Secret Doctrine, II, 556-7