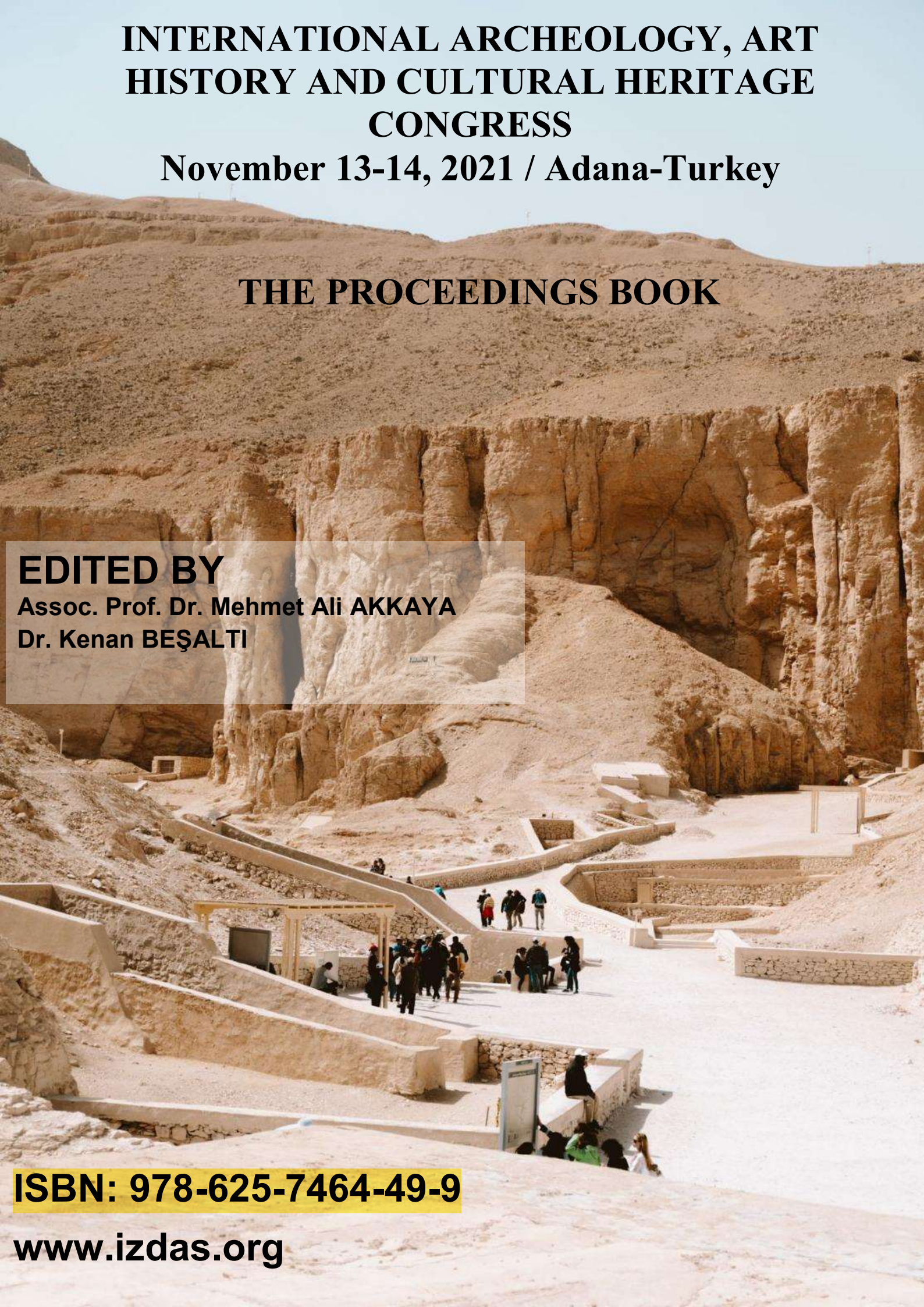
INTERNATIONAL ARCHEOLOGY, ART HISTORY AND CULTURAL HERITAGE CONGRESS

November 13-14, 2021 / Adana-Turkey

THE PROCEEDINGS BOOK



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INTERPRETING THE PETROGLYPHS OF PREHISTORIC SHAMANS OF INDIA'S WEST COAST

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SUMMARY
The author has worked since 1993 on prehistoric rock art of Goa and west coast of India and this paper presents a new hypothesis about the role of the different schools of shamans in the creation of more than 1200 petroglyphs found on the west coast of India, the largest such prehistoric rock art collection on lateritic plateaus in the world. More than 42 villages in Ratnagiri on west coast of India have 58 rock art sites with 700 petroglyphs. These sites are located at Jaigadh, Bhagavatinagar, Uxi, Ramroad, Chave, Devud, Parachuri, Jambhanem, Nivalifata, Nivali, Nivali Gavdewadi, Kapadgao, Umbarve, Kolambe, Gavkhadi, mervi, karbudi, Masebav, Golap, Ganeshgule, Curtade, Chindravali, Vestoshi in Ratnagiri; Khudi, Girye, Hivale and Kudopi in Sindhudurga, Barsu, Devache gothane, Devihasol, Barkale, Angle and Rantale in Rajapur. We can identify minimum two schools of prehistoric shamans, the makers of petroglyphs who are stylistically discernible- the Ratnagiri-Sindhudurga School of Konkan shamans (RSKS) between Vasishthi and Terekhol river basins and Goa School of Konkan Shamans (GSKS) between Mahadayi-Mandovi and Zuari or Kali river basins. RSKS created the mysterious serpentine rectangular complex of interwoven petroglyphs of Devihasol near Rajapur, the 31 petroglyphs of avimorphs, zoomorphs at Goval, the giant Bovid and feline (tiger) petroglyphs of Salegaon, anthropomorph of Devache gothane, petroglyphs of Bhalawali, a giant avimorph of Upale, and more than 50 petroglyphs at Kudopi comprising the anthropomorphs, circles, Icthyomorphs, intricate geometric figures. The GSKS created a gallery of 150 petroglyphs at Panasaimal, Kolamb, Rivona (anthropomorphs, zoomorphs, labyrinth, cupules, geometric figures, avimorphs, mycomorphs) and monolithic bovids and cervids at Cazur. More than 30 petroglyphs in Konkan can be classified as magico-sexual art- related to an unknown fertility cult. Panasaimal rock art gallery in Goa has proto Dravidian symbols like bisected ovals which can be later followed at Harappa and Indus valley on their seals. The paper would present interesting details of rock art of west coast of India with important implications for understanding ancient human migrations, various bygone shamanistic cult and the civilizations in Asia minor.
Keywords: petroglyphs, rock art, Goa, Shamans, laterite, Konkan, west coast, India

INTRODUCTION
About 75000 years ago entire Konkan, Goa including Arabian sea was covered under the falling ash of a Supervolcano in Indonesia, the famous Toba eruption. A 15 cm thick layer of volcanic ash buried southern India. Nothing would have escaped the climate change which followed. So we need to peg the starting point of history of Goa as post Toba eruption event. Nothing happened for next 15000 years. As shown by Goudeller and Korisettar in "The first discovery of Acheulian bifaces in Goa: implications for the archaeology of the west coast of India." Man and Environment 18.1 (1993): 35-42, anatomically modern Homo sapiens began to wander in very dense Zuari river valley more than 50- 60000 years ago. Then we have a real dark period of 40-45000 years till the rock art appears in prehistory. It is time to abandon all our history textbooks and begin afresh with a new look at the prehistory of Konkan.

Maharashtrian scholars would find it impossible to digest the truth that their history doesn't begin with Krishna Godavari river basin or southern areas of Harappan influence or the Deccan Neolithic but from the petroglyphs of Ratnagiri and Sindhudurga. Goa's history too doesn't begin with the legend of Parashurama but with the hunting human tribes in deep forests of Shigao on banks of Colem river. Transiting from ice age to Holocene, the present warm period must have been a phenomenal experience to our ancestors. Can we imagine a shallow sea, 80 m lower than at present 12000 years ago and a 100 km wide coastal corridor all along the present west coast of India?. What humans would have felt to walk along such a wide coastline, till the melted ice began to raise the sea level again and they were forced to migrate to higher lands? It was virtually a sandy, rocky coastal highway extended all the way via Makran coast to Bab Al Mandeb the important strait linking Africa to Arabia. The sea level began to rise 10000 years ago. But many events took place within this 2000 year period impacting prehistory of Konkan coast. We need to look carefully and critically in the claims of NIO research group led by Nigam, Saraswat and others who claimed in 2016 that "mid-Holocene climate shift/ transition (MHCT) primed the conditions for the rise and subsequent proliferation of several advanced civilizations of the world". Could we date Konkan shamanism to correspond to MHCT?. My hypothesis is simple- A mysterious and powerful cult of shamans (probably females, read further) emerged in Konkan precisely 12000 years ago. They were witnessing the gradual rise of the sea and had visions which they committed in petroglyphs. It must be noted that everywhere they used only laterite to express their artistic impulses. So it was shamanism of laterite plateaus. First such art in history of humankind- transforming laterite. They were prophets of their own time and they were revered because they were creators of fantastic shapes in stone, on bare rock with only stone tools. Although Australia and Konkan are not linked we find surprising similarity with the forms which they engraved on bare laterite and the Australian rock art. This paper was born after reading Tony Joseph's lucidly written 'Early Indians' , the story of our ancestors and where they came from (Juggernaut books, 2018) because he has completely ignored Konkan and Goa while discussing human migration routes. Then we have global excitement over the new archaeological discoveries in Konkan, more than 1000 petroglyphs raising complex questions about the origin, identity of their creators and their final fate. These petroglyphs were linked to a hypothetical pre Indus, pre Harappan Konkan civilization. This paper is about little understood and still somewhat mysterious prehistoric shamanistic culture of Konkan from Jaigadh to Karwar and improvement over articles published in 2018 and 2019.

THE ENIGMA OF ESTABLISHING IDENTITY OF ROCK ART MAKERS

Who were the first humans in Konkan and Goa and what proof we have of their arrival, the signs they left behind? and where did they disperse later?. Archaeological evidence indicates modern human habitation in the Arabian Peninsula from about 120,000 to 75,000 years ago, but in the case of the Indian subcontinent modern human presence could be found only about 50,000 years ago. In May 2017, Mayank Vahia, Nisha Yadav, Uma Ladiwala, and Deepak Mathur, all scientists at prestigious Tata Institute of Fundamental Research (TIFR) , Mumbai, published a paper in PLoS ONE titled –'A diffusion based study of population dynamics: Prehistoric migrations into South Asia" . They applied a diffusion equation tempered by a set of parameters that account for geographical features like proximity to water resources, altitude, and flatness of land to study migration of early humans into the South Asian subcontinent. They followed ensuing diffusion of populations in time-dependent computer simulations carried out over a period of 10,000 YBP.

They compared results of computer simulations to recent genetic data so as to better correlate the migratory patterns of various populations and found that the initial populations started to coalesce around 4,000 YBP before the commencement of a period of relative geographical isolation of each population group which appeared consistent with the established timeline associated with the Harappan civilization and also, with genetic admixing that recent genetic mapping data reveal. They claimed that their provided a timeline for the movement of prehistoric people and appear to suggest that the Ancestral Austro-Asiatic population (AAAP) entered the subcontinent through an easterly direction, potentially resolving a hitherto-contentious issue. Now it is this AAAP which is at the centre of the story. It is well known that Homo sapiens migrated in the Indian Subcontinent in three major waves – the first wave comprising earliest Paleolithic migration occurred at 60,000±40,000 years before present (YBP) involving a southern exit from Africa, along a coastal route from the Middle East to India, and then to South East Asia, the later migration occurred around 45,000 YBP from the North West, across Central Asia into North-western India. What was the exact route of the people arriving in Konkan?. The TIFR team found that the entry point of the AAAP into the mainland from the coast is not clear. They identified two distinct regions -locations at which the mountain ranges of the Western Ghats and the Eastern plateau corresponding to present day Goa and the Bastar region of northern Orissa. They then used both starting points of AAAP movement in different sets of computer simulations. They found that when the AAAP population enters the Deccan Plateau from Goa, it appears to merge with the ASI (Ancestral South Indian) population in southern Karnataka. This merged group then goes on to meet the ANI (Ancestral North Indian) population in central India. This research found that the entry of the AAAP into the subcontinent would be most efficient through the points of break in the Western Ghats and the Eastern Ghats. Now when we combine two important geographical features the west coast and western Ghats then we get many answers about prehistory of Konkan and Goa. This was the easiest, shortest route chosen by humans out of Africa. They finally reached Australia after crossing red Sea, Arabian coast, Konkan, South India, South east Asia and the land bridge connecting Australia. Molecular geneticists use mitochondrial DNA as a molecular clock. Human DNA based genographic project of National geographic and IBM (check https://genographic.nationalgeographic.com/human-journey/) has concluded that –“The earliest people to colonize the Eurasian landmass likely did so across the Bab-al-Mandab Strait separating present-day Yemen from Djibouti. These early beachcombers expanded rapidly along the coast to India and reached Southeast Asia and Australia by 50,000 years ago”. The first transoceanic migrants in Konkan need to have any of these haplotypes- E, M, N, Q, C, D, CT in their mitochondrial DNA. But only M and N haplogrpups are dominant in India. (More details can be found here - Chauhan, Parth R., Shantanu Ozarkar, and Shaunak Kulkarni (2014). "Genes, Stone Tools, and Modern Human Dispersals in the Center of the Old World."). As many comics, irrational and at times silly interpretations of over 1000 petroglyphs found in Konkan are encountered- the impulse behind this art on lateritic hard slate seems common- forms created in a trance, a vision which is experienced only by the shamans and not by any ordinary clan member. What was the material and spiritual culture of nomads migrating from Konkan towards south?.

METHODS

All the information for the purpose of this paper is based on personal contacts, field visits and reference to published literature, use of personal photodocumentation and public domain images of rock art of Konkan and Goa and secondary sources like news reports, news paper articles, interviews, videos in the public domain on rock art of Konkan, website of Ratnagiri district Maharashtra, tourism department, discussion with rock art researchers in Konkan in Maharashtra state, Goa and Karnataka. Communication with well-known Australian rock art researcher Robert Bednarik also cast light on importance of couples or the cup marks. 9check the references and weblinks given at the end)

RESEARCH RESULTS AND FINDINGS

In July 2018 in the local English monthly magazine, Goa Today, I had made 13 points regarding petroglyphs in Goa found at Mhaus/Mavshi, Bambolim, Banaulim, Usgao, Vaghurme, Panasaimal, Curdi, and Cazur which I have extended to the petroglyphs found in Konkan. I talked to engineer Sudhir Risbud who had toured 42 villages in Ratnagiri to locate 58 rock art sites with 700 petroglyphs. These sites are located at Jaigadh, Bhagavatinagar, Uxi, Ramroad, Chave, Devud, Parachuri, Jambhanem, Nivalifata, Nivali, Nivali Gavdewadi, Kapadgao, Umbarve, Kolambe, Gavkhadi, mervi, karbudi, Masebav, Golap, Ganeshgule, Curtade, Chindravali, Vestoshi in Ratnagiri; Khudi, Girye, Hivale and Kudopi in Sindhudurga, Barsu, Devache gothane, Devihasol, Barkale, Angle and Rantale in Rajapur. Risbud claims that the petroglyphs have now exceeded 1000. When we plot the locations on map of coastal Konkan we see their geological and topographic continuity. When I asked Risbud whether any petroglyph sites were located to the north of Jaigadh he said that the geology changes in north Konkan with less of lateritic plateaus being available as compared to southern Konkan. So on basis of available evidence it becomes clear that the creators of all these petroglyphs were only looking for laterite as medium to engrave the petroglyphs. That qualifies them to be called as world's first laterite-petroglyph makers.

MAJOR FINDINGS

PETROGLYPHS AS GRAPHICAL NARRATIVE

1. Kushavati rock art gallery is a prehistoric graphical novel, a complex pictorial book etched on rock to be read and understood by us and that was the intention of the creators who wanted to leave behind a story for anyone following them on that river bank. Everyone liked it so the work survived. I have extended this to 1200 petroglyphs in Konkan. Similar stories are recorded in anthropomorphs and zoomorphs of Konkan.

SHAMANS AS CREATORS OF ROCK ART

2. The story is simple, it is about the material and spiritual culture of Kushavati shamans who only dreamt of food, procreation and sympathetic magic and worried about change of seasons, day and night and showed curiosity about birth and death. They had no sexual taboos or inhibitions. The petroglyphs at Kudopi, Nivali, Barsu, Devache Gothane clearly indicate that the shamans created the entoptic forms under a trance.

DATING OF THE PETROGLYPHS

3. The petroglyphs speak of work of nomadic, prehistoric Homo sapiens and the location can be dated on basis of 75 cm thick sediment deposit which had covered half the labyrinth when we discovered it in May 1993 because one cm of soil takes about 200 years to accumulate

4. So the rock art could be maximum 15000 years old but on comparative stylistic and morphological grounds it has been dated as just 5- 8500 years old. The new information on Konkan petroglyphs now dates these to 10-12000 YBP so my assessment was correct.
5. There could have been more such rock art galleries along Kushavati river destroyed by mining and a few more can be found if a trek is organized from the source of the river. "Sudhir Risbud also felt that hundreds of similar rock art sites could have been destroyed in Konkan because when he was surveying the villages they told him that locals had seen petroglyphs on the plateaus but stone quarries and mines and other developments destroyed them.

SOCIAL STRATIFICATION OF THE ROCK ART PRODUCERS

6. On basis of a 5000 sq m area covered on Kushavati river bank it could be concluded that it was a substantially large community of hunters, trappers, fishers and shamans, my estimate is minimum 500 people with women and children along the river bank migrating to nearby hill cave shelter during floods. My examination of rock art sites in Ratnagiri and Sindhudurg using satellite images showed that these sites were close to the riverbanks and had small settlements never exceeding 500 and like at Panasaimal they had abundant shelter nearby in forests. So the prehistoric hamlets were small, less than 500 people.

MANUAL LABOUR AND ENERGY REQUIRED TO CRAFT THE PETROGLYPHS

7. Calculations show that with stone tools it takes a few thousand painstaking manhours to create a zoomorph and a full team to create the intricate labyrinth'. Examination of one of the most intricate labyrinthine petroglyph, the serpentine petroglyph of Devihasol was examined with fractal dimension analysis tools and it was found to be a complex self similar fractal form. Such form is purely entoptic, means it occurs in a vision.

DEVIHASOL PETROGLYPH BEING A NEOLITHIC MAP

8. One of the impulse to carve out several bovid figures was chronic boredom and use of art as entertainment. More than 500 petroglyphs in Konkan in abovementioned sites are zoomorphs- indicating even elephants, bear, tigers. It indicated the hunter , trapper lifestyle of the Konkan shamans.

IGNORANCE OF METALLURGICAL KNOWLEDGE

9. No evidence of any bronze, copper or Iron implement has been found ruling out possibility of successive creations in bronze or Iron age. So there is technological continuity in 350 km zone.

ABSENCE OF WEAPONS AND IMAGERY OF WARCRAFT

10. No weapons – spears or bows , arrows, axes are carved anywhere indicating ignorance of metallurgy and projectiles. This has been confirmed all over Konkan where petroglyphs have been found indicating that the shamans weren't interested in warcraft or violence directed against other humans.

IDENTIFICATION OF TWO SCHOOLS OF SHAMANS IN KONKAN AND GOA

We can identify minimum two schools of prehistoric shamans, the makers of petroglyphs who are stylistically discernible- the Ratnagiri-Sindhudurga School of Konkan shamans (RSKS) between Vasishthi and Terekhol river basins and Goa School of Konkan Shamans (GSKS) between Mahadayi-Mandovi and Zuari or Kali river basins. RSKS created the mysterious serpentine rectangular complex of interwoven petroglyphs of Devihasol near Rajapur, the 31 petroglyphs of avimorphs, zoomorphs at Goval, the giant Bovid and feline (tiger) petroglyphs of Salegaon, anthropomorph of Devache gothane, petroglyphs of Bhalawali, a giant avimorph of Upale, and more than 50 petroglyphs at Kudopi (anthropomorphs, circles, Icthyomorphs, intricate geometric figues). The GSKS created a gallery of 150 petroglyphs at Panasaimal, Kolamb, Rivona (anthropomorphs, zoomorphs, labyrinth, cupules, geometric figures, avimorphs, mycomorphs) and monolithic bovids, cervids at Cazur.

MYSTERIOUS MAGICO-SEXUAL PETROGLYPHS

More than 30 petroglyphs in Konkan can be classified as magico-sexual art- related to an unknown fertility cult. Panasaimal rock art gallery in Goa has proto Dravidian symbols like bisected ovals which can be later followed at Harappa and Indus valley on their seals. Similar symbols have been found among petroglyphs in Konkan and not all are mapped.

DISTINCTION BETWEEK KONKAN AND GOA PETROGLYPHS

What is fundamental distinction between Konkan petroglyphs and Goa ?. It is the seven circuit labyrinth which distinguishes Goa from rest of Konkan petroglyphs although certain geometric forms in Ratnagiri petroglyphs seem closer to a labyrinth including the great petroglyph of Devihasol. I had mentioned in July 2018 that " the complex spiritual world of Kushavati hunter –food gatherer shamanistic culture was identical with a single global rock art motif – the Labyrinth which the Swedish scholar on the subject - John Kraft, Västerås, Sweden (http://www.labyrinthos.net/index.html.) called India's most ancient labyrinth petroglyph. The makers of Kushavati labyrinth were geomancers, or earth diviners, and they carved it for ritualistic purpose.

APPLICATION OF TURING INSTABILITIES TO PETROGLYPHS

I propose to extend the neurophenomenological research findings of Froese, Tom, Alexander Woodward, and Takashi Ikegam ("Turing instabilities in biology, culture, and consciousness? On the enactive origins of symbolic material culture." Adaptive Behavior 21.3 (2013): 199-214) to explain the impulse behind Konkan shamanism yielding lateritic petroglyphs. Froese and team studied over 40,000 years worth of cave paintings and explained spiral-like and labyrinthian designs found from locations thousands of kms away from each other as patterns which emerge after ingestion of hallucinogenic drugs. These hallucinations are known as "Turing instabilities," and are common after ingesting a number of different plants with psychoactive properties. The patterns resemble "neural patterns" which mimic the structural makeup of the brain and are as meaningful as those that initially experienced them perceived them to be. The authors claimed that when these visual patterns are seen during altered states of consciousness they are directly experienced as highly charged with significance.

PETROGLYPHS INDICATE KNOWLEDGE OF HALLUCINOGENS

We need to note that the period of petroglyph creation was a pre -agricultural period. The nutrition of the nomadic human clans depended on food gathering, hunting and fishing. There was no knowledge of toxic and hallucinogenic plants but during the process of collection certain bioactive properties of plants and mushrooms were discovered by the shamans. They closely guarded the secret properties of these plants. It is inconceivable that the Vedic culture can think of creation of Vedas without methodic consumption of 'soma" a ritualistic plant with powerful mind altering and bioactive properties. The shamans of Konkan were pioneers in use of unidentified hallucinogens- that's how we see very odd shapes of whales, sharks, fish, lions, tigers, birds, winged scarab beetle and even what some claim to be a Kangaroo. Archaeoastronomy was practiced by Konkan shamans.

ARCHAEOASTRONOMICAL KNOWLEDGE

The vivid, life like petroglyph in Ratnagiri depicts a pair of fish facing opposite directions, connected by a strap like band. Such twin fish symbol has been used for thousands of years to depict the Pisces constellation. Now this must be contrasted with the pair of 7 cupules found at Bambolim by this author which clearly indicates symbol for Pleaides similar to Navajo Indian petroglyph found in Blanco canyon, USA.

CONCLUSIONS

So to summarize my present understanding of both RSKS and GSKS- here are certain fundamental claims which can guide future field and laboratory investigations and government and NGO actions

1. Present interpretations of peopling of west coast of India in general and Konkan and Goa in particular based on incomplete knowledge of sea level need to be discarded and it has to be accepted that 12000 years ago fall in sea level benefitted hordes of humans migrating out of Africa and they descended on west coast via Makran, Kuttch and Saurashtra
2. Evidence of Konkan as route of human migration southwards via Goa to Australia can be found in the genes. Detection of any of these haplotypes- E, M, N, Q, C, D, CT in their mitochondrial DNA would identify the first transoceanic migrants in Konkan
3. There is no possibility of any humans in Konkan and Goa before eruption of Toba supervolcano 75000 years ago.
4. The real prehistory of Konkan and Goa begins after recovery of extant human population either surviving from Toba eruption effects or beyond its impact zone only around 70-74000 years ago.
5. The Acheulian bifacial hand axe producers of Zuari river basin in Goa are most ancient Homo sapiens in entire Konkan, inhabiting the resources rich thick forests and river banks of Zuari at Sigao about 50-60000 years ago. They had no direct connection to makers of the petroglyphs.
6. In history of Konkan and Goa a huge gap of 40-45000 years exists -from the makers of Acheuelian handaxes to makers of the petroglyphs and this can be filled only by undertaking archaeological excavations in coastal caves and rock shelters and on river banks in upper river basins of Vasisthi, Terekhol, Chapora, Mahadayi, Zuari, Kali, Ganagavali and Sharavathi. The Bhimgarh Krishnapur limestone caves are likely to yield lower paleolithic occupation layer.

7. The TIFR team has correctly identified Goa as closest point for migration to Deccan across the Western Ghats and have shown by using diffusion model that the rising sea level and climate change could have possible forced the humans in Konkan to the Deccan plateau- this explains the fate of Konkan Shamanistic culture during the Holocene.
8. Consistent with finding of the TIFR team the Konkan Shamans are identified as secondary or tertiary wave of AAAP – plainly the Austro Asiatic Ancestral population which occupied Konkan and Goa 12000 years ago or sometimes before and left the region about 10000 years ago during the Holocene. This also means that the petroglyph art galleries in Konkan and Goa were created painstakingly over 2000 years a period equalling 80 to 100 human generations.
9. From 7 and 8 we can conclude that this phase of prehistory of Konkan and Goa can be designated as " Konkan-Goa shamanistic culture of mid-Holocene climate shift/ transition". It begins around 1200 years ago and ends 10000 years ago.
10. From 9 above we can place the temporal plan on spatial matrix by identifying a 350 kms long geospatial zone of shamanistic entoptic art -Ratnagiri-Sindhudurga School of Konkan shamans (RSKS) between Vasishthi and Terekhol river basins covering a belt of 180 kms and Goa School of Konkan Shamans (GSKS) between Mahadayi-Mandovi and Zuari river basins (Virdi to Cazur) traversing a distance of 100 kms. It is highly possible that "schools within these two schools" may be detected in future.
11. The interpretation of all the petroglyphs in Konkan and Goa whether plane lines, curves, spirals, abstract forms, geometric forms, avimorphs, zoomorphs, icthyomorphs, anthropomorphs, bisected ovals and any other engravings can not be interpreted from current mythologies, scriptures, legends, folklore or beliefs as the spiritual and material of these shamans was much different
12. From 11 above it is implied that the spiritual , pre religious world of the shamans was purely hallucinatory based on fantasy and visions and resulting from entoptic impulses. "Entoptic" means "within the visual system," referring to images generated anywhere from the retina to the highest layers of the visual cortex. When the human brain is destabilized in certain ways - through sensory deprivation, rhythmic chanting or drumming, flickering lights, certain forms of dance, as well as the ingestion of hallucinogenic drugs - it reacts by generating so-called "entoptic images," David Lewis-Williams theory is more applicable to interpret these forms.
13. From David Lewis-Williams theory it can be shown that shamans of both the schools mentioned in 10 above were members of hunting community, they were ritual experts, adept at entering trance states in which they visit the world of the spirits. They could have taken these excursions to retrieve the lost souls of the desperately ill, to influence the weather, to oppose the forces of witchcraft (in the sense of malicious, harmful magic), and to negotiate with the animal spirits over game.
14. Modern neurophenomenological interpretation of these rock art forms based on Froese, Tom, Alexander Woodward, and Takashi Ikegam's work is equally applicable without compromising what is mentioned in 12 and 13 above
15. There is no collection of petroglyphs anywhere in world exclusively engraved on ferruginous or manganiferous hard laterite and in a horizontal fashion and therefore being such large collection spread over 350 kms these artefacts require attention of UNESCO for proper inscription. The shamans of Konkan and Goa need to be credited as " World's first creators of lateritic entoptic rock art".

16. Therefore these 1000 + petroglyphs may indicate attempt to develop some kind of proto language a pictographic precursor to cuneiform 3200 BCE and hieroglyphic scripts. It is clearly seen from arrangements of the petroglyphs that the shamans were creating a definitive narrative.
17. The seeds or elements of Indus-Harappan or even Natufian/Egyptian cultures may be traced in certain petroglyphs especially the petroglyphs of "master or mistress of the animals" and "dancing girl" and the "magic staff with horizontal plate and bison horn motif" at Panasaimal.
18. Considering the structure of prehistoric human societies, it is speculated that the creators of all these petroglyphs in Konkan and Goa were women shamans- and it is claimed to be exclusively feminine rock art. Due to typical division of labour in such prehistoric human societies women had more time at their hands rearing the children, looking after the sick whereas males hunted or fished.
19. From 18 above certainly the cult of female priestesses in Asia minor and middle east which followed with rise of settlements and agriculture actually began with petroglyph creators in Konkan and Goa and their female shaman contemporaries elsewhere
20. It is predicted that almost all lateritic plateaus on west coast specifically from Devgadh to Mangalore might have petroglyphs and cupules which need to be surveyed, explored and conserved immediately. For this purpose, satellite imagery, scanning of landscape by drones, local inquiries, field visits and GPS based investigations would be necessary. Most probably routes of the migration undertaken by Konkan shamans to the Deccan across the Western Ghats (like at Virdi, Mauxi and Cazur) would yield petroglyphs as have been recently discovered in Malprabha river basin close to upper Mahadayi river basin on Goa Karnataka border. R Mohan, Sushma Deo and A Sundara (October 2017) reported 32 rock art sites and 87 localities. The art include geometric designs or pattern, Prehistoric 'Badami Style of Human Figures', human figures, miniature paintings, birds, wild animals like boar, deer, antelope, hyena, rhinoceros, dog etc.
21. Finally the problem of precise dating of petroglyphs in Konkan and Goa remains- for this purpose the method developed by Australian rock art expert Robert G Bednarik (1996) needs to be used. This is a new calibrated method based on erosion phenomena for the dating of petroglyphs (rock carvings and engravings) and geomorphic surfaces. In contrast to previous methods of petroglyph dating, which sought to determine the age of various mineral and organic deposits coating the art, microerosion analysis attempts to ascertain the time of mark production itself, by creating a geomorphologically based time frame. The method involves the establishment of calibration curves for the crucial variables to be considered. These are the rock type and climate of a particular region, microerosional indices and age.
22. Digitization of all the discovered petroglyphs by high density optical scanning would be required with accurate GPS positions. Multispectral UV, IR bands also need to be used for more details. Geomagnetic anomalies have been suspected at locations of certain petroglyphs and this could be an opportunity for magnetoarchaeologists.
23. Modern technology permits production of perfect casts or moulds of petrolglyphs in plaster of paris or non toxic polymers which permit better "off site" investigations and "ex situ" preservation for museums. Such technology can be attempted at locations like Kudopi, Devihasol, Cazur, Panasaimal etc.
24. The Konkan petroglyphs have vast implication and connections to rock art in the Indian ocean region, Eastern and Northern Africa, Egypt, Middle East, Mediterranean ocean region, Asia Minor, Central Asia, Saudi Arabia ,Persian Gulf and Baluchistan.

There need to be detail stylistic studies to compare and contrast the petroglyphs of "master of the animals", "man holding tigers in both hands" and Khepri the sacred Scarab Beetle.

25. A lot of issues have been raised by the Labyrinth of Panasaimal Goa and intricate pattern at Devihasol. It is intriguing that among 1200-1500 petroglyphs so far recorded in Konkan a labyrinth identical to Goa has not been found so far. Neither the intricate form found at Devihasol is found in Goa.

To conclude it may be necessary to rewrite all our history textbooks and begin a new chapter in prehistory of Konkan and Goa, Maharashtra and whole of the Indian subcontinent, Asia and the world. Immediately after the ice age for 2000 years the rock art makers were active on west coast of India, to produce something magical, mysterious, and beautiful. Without aid of any metallic tools, they left behind a rich treasure-trove for posterity. Was there a lost seafaring, fishing, maritime civilization in Konkan from 8000 BC to 10000 BC? How it rose and fell? From where these people reached Konkan and Goa? What did they learn from the first waves of Homo sapiens sapiens out of Africa? What were the processes of cultural diffusion occurring during this period? How to interpret anthropomorphs like the "master of the animals" and "man holding two tigers in both hands" or the nested Zoomorphs?. How could we get proof of consumption of hallucinogens, entheogens and turing instabilities giving the entoptic visions? How to prove that these visions were superimposed for a long time on the hard rock and the petroglyphs materialized? How were these shapes and patterns imagined? How was the scale of the petroglyphs determined? How many artists were working on a single petroglyph? Was there a division of work to produce different types of petroglyphs? Why there are no scenes of human-to-human combats? Was this society a unique pre coastal agricultural society of hunters, food gatherers and fishermen? Why plant forms are almost absent and zomorphs are so dominant? What regional and international collaboration would be required to document, study, protect, preserve and conserve these precious petroglyphs of Konkan and Goa?. Is more emphasis needed on deep marine archaeological investigations along the western continental shelf of India from Gujarat to Kerala to identify any evidence of extinct bygone civilizations after the rise of the sea level?. These and more such questions need to draw the attention of the scholars in future.

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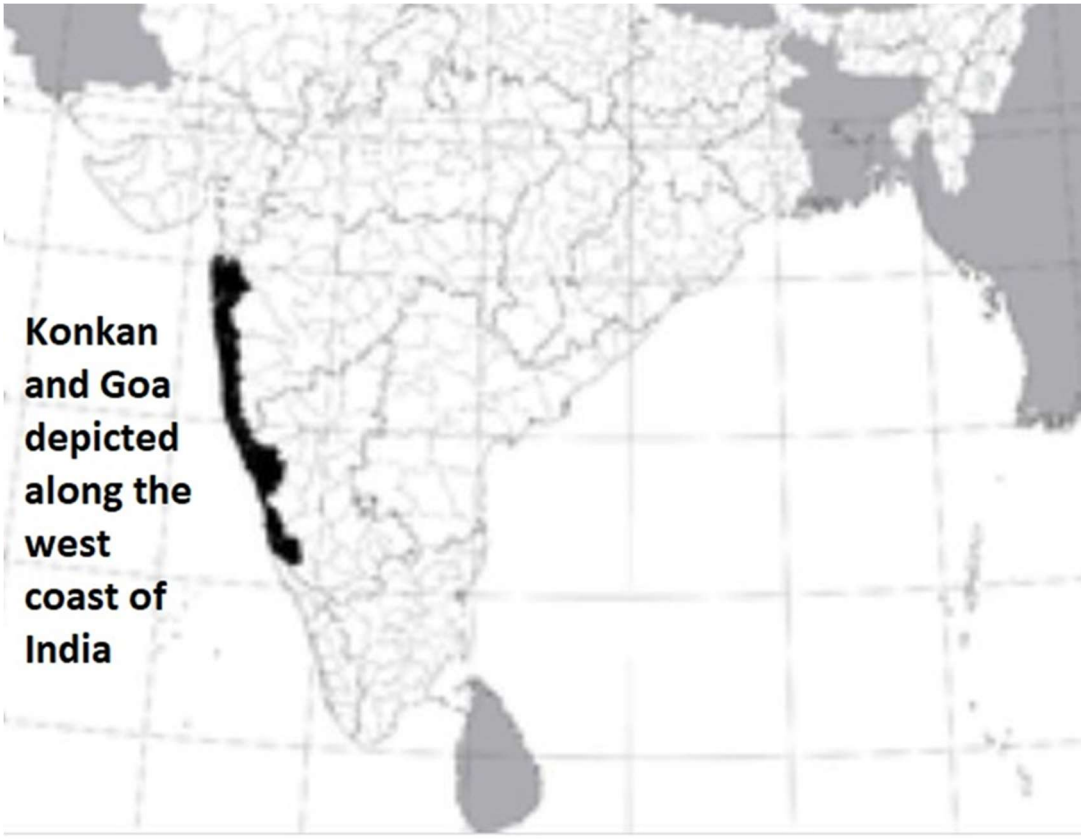
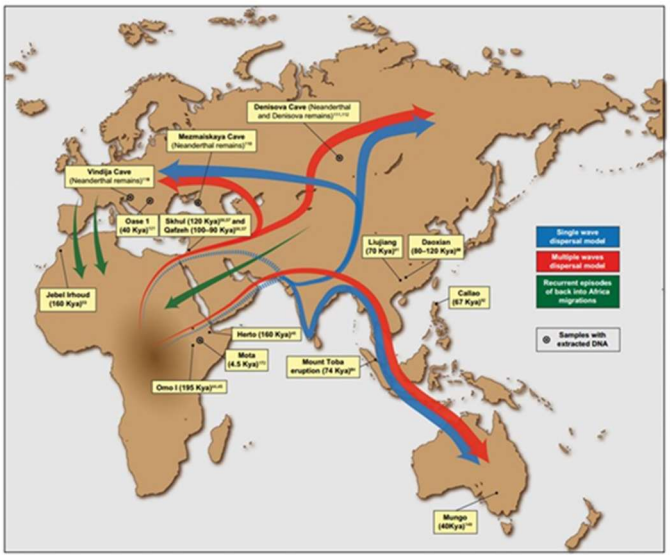
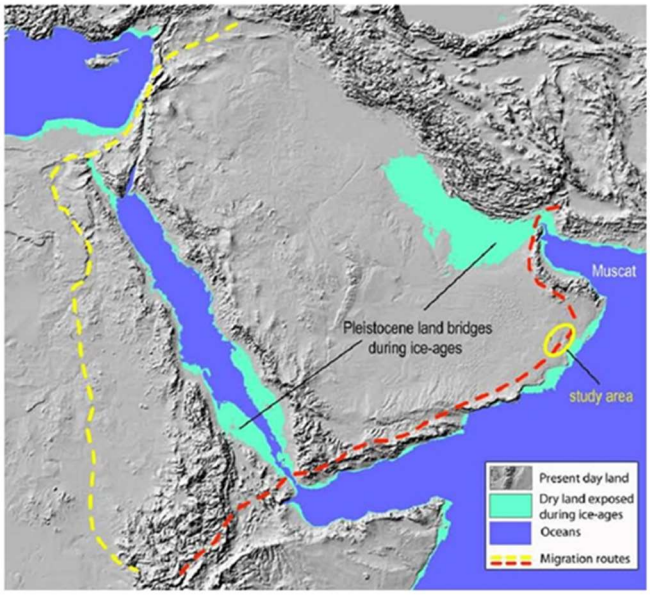
Figures 1-11



Routes of human migration hide the mysteries of rock art



Route of human migration via Bab-al-Mandeb during Pleistocene




DRONE VIEW OF
GIANT
ZOOMORPHIC
PETROGLYPH OF
KASHELI
RAJAPUR


A QUICK TOUR OF PETROGLYPHS OF GOA,
INDIA

A QUICK TOUR OF PETROGLYPHS OF GOA, INDIA

A QUICK TOUR OF PETROGLYPHS OF GOA, INDIA

ANTHROPOMORPHIC PETROGLYPHS OF GOA

- INTERPRETED AS 'HEADLESS EARTH GODDESS"

What is fundamental distinction between Konkan petroglyphs and Goa ?. It is the seven circuit labyrinth which distinguishes Goa from rest of Konkan petroglyphs although certain geometric forms in Ratnagiri petroglyphs seem closer to a labyrinth including the great petroglyph of Devihasol.

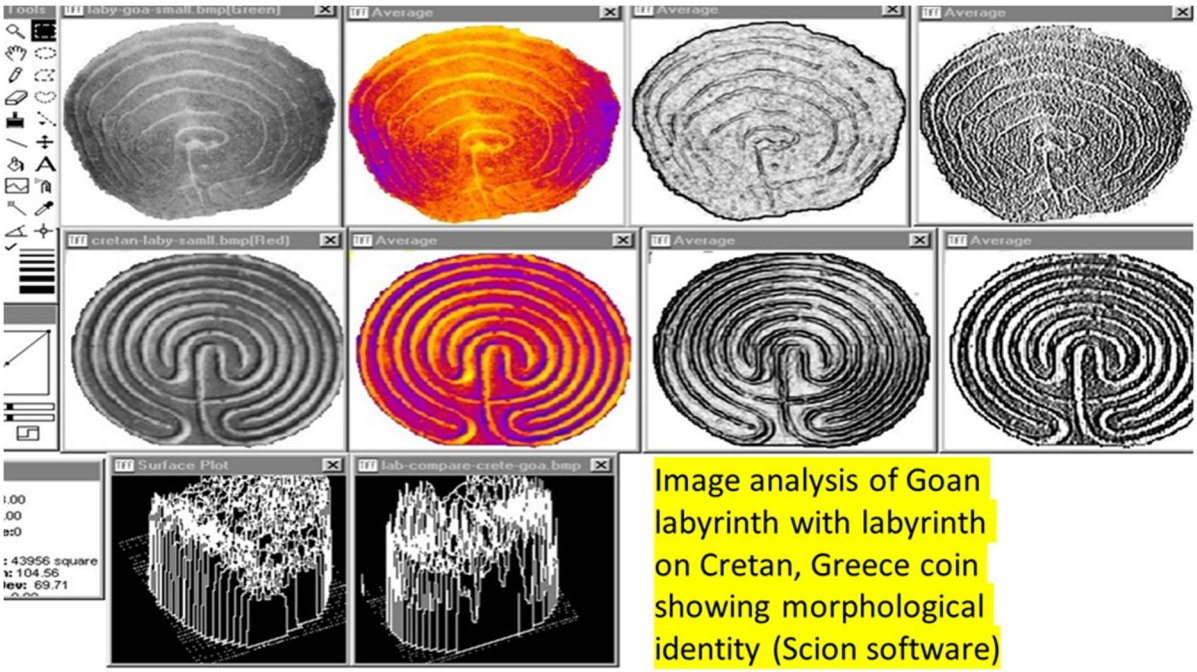


Image analysis of Goan labyrinth with labyrinth on Cretan, Greece coin showing morphological identity (Scion software)