ISSN 2499-1341

EXPRESSION

QUATERLY E-JOURNAL OF ATELIER IN COOPERATION WITH UISPP-CISNEP. INTERNATIONAL SCIENTIFIC COMMISSION ON THE INTELLECTUAL AND SPIRITUAL EXPRESSIONS OF NON-LITERATE PEOPLES

N°9 September 2015

Papua New Guinea. Remembering the past: ancestral figure in wood. (Photo Archives Anati).

EDITORIAL NOTES

WHAT HAPPENS WITH HUMAN SCIENCES?

Day after day several hundred students queue up at the entrance of the library of the Centre Pompidou in Paris, where they intend to spend the day reading and studying. They will write down notes to memorize whatever knowledge they need to make their forthcoming examinations successful. They prepare themselves for getting their diploma or PhD, the *rites de passage* that allows them to become graduate members of society.

We talked to them. Some wish to get a degree to find a better job; some hope to go into teaching; some fear to remain baby-sitters or waiters in restaurants for the rest of their lives. Many of the students interviewed intended to go into computer sciences or electronic engineering and a surprising number wished to become dentists. Most of those oriented towards human sciences had doubts about the possibility of pursuing a career in the specific field of their choice.

Is this the mirror of a trend? Would similar responses be obtained in other public libraries in Rome or London?

Most young people look for a job; they rarely consider inventing a job. They rarely find the job they are looking for. In Europe and elsewhere we are suffering a conceptual crisis. If many young people do not know what they want to do, there is a problem with the kind of education they have received. If the possibility of getting a job in human sciences is so limited, there is a problem with the cultural strategies of the institutions. If there are no jobs in human sciences, human sciences will risk dying.

We live in an age of transition. The old values are obsolete; the alternative ones are not yet ripe. We live in a lucky age with immense possibilities for new ideas. New ideas produce new ways of expression, new public interest and new jobs.

Trends change from generation to generation. At times vocations attract the humanities; other times engineering or military careers are preferred; at times studying is a means to obtain a job and students follow the disciplines that appear to offer better economic opportunities: the job is shaping their destiny. At times they find their vocation and are shaping their destiny by inventing their jobs.

What was the trend in the Renaissance period? What we know is the outcome, the heritage left behind by students and apprentices who became famous painters, writers, musicians, thinkers, philosophers and theologians. They set up the bases of modern culture. Probably most of the young people, then as today, became artisans, agriculturists or workers to make a living. Not everybody aimed at being an intellectual, but that epoch remains characterized by the intellectuals, musicians and painters, philosophers and creative architects. Thanks to them their age was shaped and culture progressed remarkably. They were a few individuals; they created art and culture because they found the possibility of doing so in the context of their time and their society: by so doing they created the image of their time.

Going further back, what heritage was left for posterity by classical times, by the builders of Athens's Acropolis? Or by the Bronze Age builders of the pyramids in Egypt? Or by the builders of the Neolithic temples in Malta? Or by the megalithic builders of Brittany, or the makers of prehistoric art? What reached posterity? What produced culture? The arts and the monuments are the output of intellectual, human concepts of those who succeeded in expressing themselves. They produced the common heritage of mankind, the source of identity, the roots of culture.

Each age is defined by the conceptual creations that have reached us. What would culture be if they were forgotten? Humans must satisfy both, body and soul. Intellectual awareness is an essential part of living. When bread and water are available, a revival of conceptual thinking awakens the mind.

Like many other sites of rock art, the Naquane park in the Camonica valley in Italy is a library on rocks, where about a hundred rock surfaces are covered by engravings, mostly belonging to a few thousand years ago. Today the site is visited by tourists and schools. Its rediscovery and management, reactivated a site that

after thousands of years is still producing culture.

When the prehistoric engravings were made, one of their major functions was like that of the blackboard in a school class, or frescoes in a cathedral: using visual images and signs for teaching, reminding and remembering myths and history. It displays what young people needed to know to sustain their initiation *rites de passage*, and what every adult was supposed to know to be able to transmit to the next generation. The same role is today reactivated today. Ancient rock art sanctuaries renew such a service: that of the testimony of history and human creativity, education and culture, discovering and remembering the past.

Like other sites of prehistoric and tribal rock art, happenings and gatherings may have taken place at the site, to establish cooperation and identity. Classes of young people likely followed their instructors on the sacred ground of rock art in the process of initiation, to learn the events narrated by the pictures, to acquire the needed knowledge to become active members of adult society.

Can we figure out what their expectations were? Society was less specialized then than today and most people did not wish to become philosophers, writers, teachers, astronomers, engineers or medicine doctors. Some of them may have acquired the abilities of all these disciplines together by becoming shamans or gurus. Most of them would have been busy with their daily activities, and would have attended the gatherings just to be part of the community and to share the emotions of reviving what they already knew, myths and history. A few were the makers of rock art, but the entire population was involved in its educational and cultural roles it produced. After thousands of years these sites continue to produce education and culture. The same may be said for Athens's Acropolis or for the Neolithic temples of Malta.

The makers of prehistoric art were memorizing and transmitting traditions, myths, beliefs, rules and habits of human relations, and also songs and rituals, from parents to offspring: like every father would do. The technical knowledge was enveloped by humanistic knowledge and socialization. Society survived both physically and conceptually by memorizing and transmitting the memory acquired and inherited by previous generations.

Memory is identity and the knowledge of the past, being a merger of memory, history and myths is the core of identity. This knowledge granted people the awareness of their identity. Further, it granted the ability and the need to produce rock art to immortalize the testimony of their identity on the rock surfaces and to hand over their story to future generations.

Contemporary bureaucratic structures are acting according to their intellectual infrastructure. Most of the few available jobs in research institutions are used to compile inventories and descriptive databases, or to compile applications to obtain funds to compile inventories. The meaning, the decoding of the content, is neglected. Often, databases are just administrative tools to count figures as if they were the shekels of a stingy landlord. Why were these figures produced and to whom were they addressed? What do they mean? What is their content, what are the messages that they conveyed and should still convey? These are tasks for human sciences. Engaging young researchers in such queries would advance research, make the past better understandable and produce culture.

The databases will often provide the measures and the location of the images but rarely their meaning. Question: "Why are you producing this database?" Reply: "It is going to finance me for the next two years." Question: "What are you going to do with your database?" Reply: "It will be added to the university archives." Question: "What is going to be its function?" Reply "It is going to be on the internet."

Today, researchers are able to read and decode just a small portion of the messages left on the rocks. Reading the picture-writing is at the embryonic phase and an immense work is to be done. The research of today will make the culture of tomorrow. Inventories can be produced by technicians. Scholars in the human sciences should be involved in reading, decoding and explaining what was produced ages back. Also other aspects of our past should be made more understandable. The Egyptian pyramids or the Neolithic temples of Malta or the megalithic structure in Carnac are beautiful, astonishing, unique, then what? Providing a deeper explanation of how and why they were built, and what was their meaning, would give them a new dimension and would produce true interest, knowledge in the public and culture. Going further inside the reasoning and the motivation of

human actions would allow us to discover something more about the behaviour and way of thinking of this unknown human species to which we belong. What happens with human sciences?

So far, many aspects of the human cultural heritage, such as that of prehistoric art, have not reached the vast public; humans have prevented access to such a big conceptual patrimony. Why? Because only a few of the students queuing up at the gate of the library, will have the opportunity of devoting their time and energy to the study of this patrimony. Many chapters of history, many myths, many beliefs and many events are recorded on the rocks. They are not yet sources of knowledge, education and enrichment of our understanding of the past. They risk remaining undecoded, displaying their physical beautiful, astonishing, unique aspect, while their content remains hidden.

Human retrospection follows a double process of accumulation and selection. When certain aspects of our memory are not solicited, they are removed from the active memory, to be relegated like a hidden treasure that has no use if it is not rediscovered.

"Culture does not bring in bread" is the false slogan showing the intellectual dimension of those using it. Culture determines the level of living. Culture is the bread of souls for those having a soul. Culture is the wit of an age for successive ages. Culture is what we are.

The makers of rock art were intellectual analphabetic producing culture for their own needs and pleasure. They produced an immense database, which is there to be read. They did not receive public funding to do their database. They were small clans creating millions of paintings and engravings, a major human heritage that needs to be decoded and become an extraordinary source of knowledge, education and awareness of our past. If understood and explained, it is pushing back of millennia towards the beginning of history. And it is bound to become an immense resource of tourism and the economy. Most administrators perhaps better understand this last argument. Why not create new jobs to allow such a development? Why should military academies get more public funding than the faculties of humanist studies?

There are periods of our history characterized by explosions of literary, artistic and conceptual creativity. Millions of rock art images have been produced, read and worshipped by non-literate societies all over the planet for millennia. Millions of books have been produced and read by millions of readers in the last half millennium, since the invention of the printing press. How come that so many publishers are now unable to survive as books are no longer read and studied as they used to be?

The internet can provide fast technical information but will never replace certain types of books in stimulating conceptual analysis, in the task of conveying ideas and concepts that require not just fast digestion. What about understanding? No wonder that the concentration on the dry technicalities requested by the exams is deforming the minds of students. What happens with human sciences?

Apparently interest in deep thinking is decreasing. Is the age of books over? Is the concern for intellectual creativity in decline? Is simple technical information replacing concepts and imagination? Are we loosing the sense of intellectual pleasure? Whatever the case, some books will survive: those that cannot be replaced by the internet fast-food, those that reveal the soul behind the dry body of data. These are the books we have to produce and offer, those that the reader should read and reread and then enjoy thinking about, the books that people would like to keep at home. We have to offer not just books, but also ideas that will awaken interest and concern. If humanistic studies become boring their destiny can be predicted.

The new discipline of conceptual anthropology is sailing against the wind. It is a modest example of a revival of intellectual pleasure, stimulating critical, analytical in-depth considerations of the conceptual aspects of human imagination and behaviour, provoking positive, alternative thinking.

People concerned with humanist studies and the conceptual aspects of culture, wishing to share the intellectual pleasure of enriching the understanding of human behaviour, would be stronger if they succeeded in being united and in maintaining channels of communication. This is what we are trying to do.

Humans produce trends and humans can modify them. Let us sail together against the wind.

E. A.

CONCEPTUAL ANTHROPOLOGY

Conceptual anthropology is the discipline that combines aspects of human and social sciences related to human behaviour and culture, using experiences of the past to understand the present and build the future. The concept gestated for some time until it was formalized during the UISPP Congress in Florianopolis, Brazil, in 2011, setting new horizons for human sciences. The goal is to understand human behaviour and cultural trends, recurring and isolated phenomena, and predictable and unpredictable evolution and change, not only in technology, but also in social, intellectual and spiritual life. It is a journey of discovery and emotions.

Each discipline has its own memory as the basis of research and the advancement of the discipline itself. Combining disciplines is also a union of memories for a broader base of research and culture. Today media tend to replace technical and historical memory. But the human mind's insights and associations are still irreplaceable. Our being and our actions are rooted in memory. When we err, we often owe it to our memory blurring. When we reach positive results, it is because we have made good use of our memory. We do not refer to electronic memory but to the one expressed in intuition and discovery, the memory that springs from the deep well of our psyches. Every being, like every discipline, focuses on certain aspects of memory and neglects others. Together, disciplines and cultures share wider dimensions of memory. This approach turned out to make a remarkable contribution to the study of the intellectual and spiritual expressions of non-literate peoples.

One of the purposes of UISPP-CISENP, the International Scientific Committee on the Intellectual and Spiritual Expressions of Non-literate Peoples, in addition to the pleasure of meeting and growing by dialogue, is to promote the common commitment to the understanding of such human expressions, with the support of multidisciplinary research. As students of various disciplines, anthropologists and archaeologists, psychoanalysts, educators, sociologists, semioticians, philosophers and historians, we all wish to confront questions which a shared commitment can help clarify. The meeting of different disciplines offers a wider dimension of knowledge and greater capacity for analysis and synthesis.

Faced with the fashion of extreme specialization, which risks reducing scholars to technicians, conceptual anthropology goes against the tide. No doubt technicians are needed, but we seek a cultural vision and broad overview in the common work of the humanities and social sciences. Let technicians and intellectuals do their own jobs and then enrich each other through dialogue.

Research has a real social function when it produces culture. When culture is creative and innovative, it stimulates new thought. The dialogue is open to all disciplines of the humanities and social sciences as well as to those who do not identify themselves with a specific discipline or who just want to listen. Each listener is a potential transmitter of ideas and ideas grow and spread not only through those who produce them, but also through those who listen. The dialogue is never-ending and is a source of growth and enrichment, and also of cooperation and friendship. Research is a provocative, stimulating and inspiring source of awareness. You are welcome to join in.

BECOME A MEMBER OF THE UISPP, INTERNATIONAL UNION OF PREHISTORIC AND PROTOSTORIC SCIENCES.

EXPRESSION, this e-journal, is produced by ATELIER, the Research Center in Conceptual Anthropology in cooperation with the UISPP-CISENP (the International Scientific Committee on the Intellectual and Spiritual Expressions of Non-literate Peoples), an organ of the UISPP. UISPP is offering also other facilities, including participation in its World Congress. Membership of the UISPP will ensure you official status as UISPP Active Member of CISENP. If you are a member of UISPP please confirm your status to <atelier.etno@gmail.com>. If you are not yet a member, and you wish to attend the World Congress, become a member of the UISPP. For further information contact the office of the General Secretary: loost@ipt.pt

THE LINE OF EXPRESSION

This journal offers space of expression to well-known scholars but also to those refused elsewhere for ideological or conceptual reasons. We try to maintain an open, international, multidisciplinary dialogue, keeping at the same time a high level on the quality of the published papers. Those getting away from the beaten trails may determine the paths of cultural evolution. We do not know if cultural evolution is good or bad, but human nature is favoring it. We are open to discover unbeaten trails.

Periodical publications have their identity. Keeping their specific field, their way of expression and their philosophy, they have the double problem of finding authors and readers and then making them interested in each other.

In EXPRESSION we are publishing a broad range of papers, including those expressing ideas that we do not share. Publishing them is a way to test their validity. We do not use reviewers as censors. A number of reliable reviewers are helping both editors and authors to enhance texts and when necessary avoid publishing unreliable information. As a general strategy, we prefer to avoid publishing papers that say nothing new. We try to avoid what we consider as boring and meaningless descriptions or catalogues, for the simple reason that they do not enter into the spirit and goals of the periodical. We avoid publishing papers that may be offensive to people. We try to stimulate authors to acquire a consciousness of the value (or lack of value) of what they propose. Controversial ideas are welcome. Our journal is publishing what conservative periodicals would feel uneasy accepting. If they provoke debate and are not offensive, they are welcome. Their acceptance or refusal by the readers will decide their destiny.

Usually the opinion of reviewers is respected and papers they reject are not published. There may be exceptions when papers rejected may provoke discussion and awaken debate. In such cases the editors are considering the possibility of publishing them, occasionally requesting the authors to further specify their thesis or to introduce minor modifications.

THE FORTHCOMING WWW BOOK

In this issue we are concluding the e-presentation of the papers concerning the project "*When, Why and to Whom*". The printed edition is now being edited and will be published in a limited number of copies according to the orders received. It is going to become a rare and exclusive edition. Authors have the privilege of being able to order up to 3 copies. Those that did not yet order their copies they may do so now by replying to the following newsletter. Readers who are not authors in the volume may order only one copy per person.

TO THE AUTHORS OF "WHEN, WHY AND TO WHOM"

Dear colleague and friend,

It is a pleasure to confirm that your paper is appearing in e-issue of EXPRESSION and has been selected to be published in the volume "Prehistoric and tribal art: When, Why and to Whom". The book will include papers of over 50 authors from 25 countries. It will present a broad landscape of different views and cases from five continents and will be a valuable textbook on the meaning and purposes of prehistoric and tribal art the world over. We are pleased to have been able to include your contribution into this publication. Please find enclosed the list of authors and titles.

The printed edition is planned to have over 250 pages and 200 illustrations and will be available to the public at the price of € 40. Authors have the right of acquiring up to 3 copies at 25% discount that is € 30 per copy (plus mailing cost) by subscribing and returning the enclosed form.

If your text does not arise serious problems of editing, you will hear from us again just to announce the coming out of the book, planned for the month of November. The copies reserved will be mailed to the authors as soon as they are available.

We look forward to hearing from you.

Cordial regards and best wishes,

Atelier

PREHISTORIC AND TRIBAL ART: WHEN, WHY, TO WHOM

	List of authors	Title of communication
1	**Basile Mara, Ratto Norma (Argentina)**	Images in time: an overview of rock art manifestations in the Fiambalá region (Catamarca, northwest of Argentina)
2	**Ben Nasr Jaâfar (Tunisia)**	The Rock art of Tunisia: When, Why and to Whom?
3	**Chies Monia (Germany/Italy)**	Celebrating Three Hundred Years of *Mani* stones carving at the Tibetan Buddhist Site of Gyanak Mani, Yushu TAP (PRC)
4	**Christie Jessica Joyce (USA)**	Layered Messages through Time: A Case Study of Blue Bull Cave, Canyon de Chelly, AZ, United States
5	**Coimbra Fernando (Portugal)**	Semiotics in the Rock of the Signs (Barcelos, Portugal)
6	**Dahl Ib Ivar (Denmark)**	Danish Viking marks on stone?
7	**Delnoÿ David, Otte Marcel (Belgium)**	The Petroglyphs of Huancor, Peru: Form and Meaning
8	**Domingo Sanz Inés (Spain)**	LRA (Levantine Rock Art)
9	**Drabsch Bernadette (Australia)**	The Wall Art of Teleilat Ghassul, Jordan: When, Where, Why, to Whom and by Whom?
10	**Felding Louise (Denmark)**	Rock Art: When, Why and to Whom? Two Danish Examples
11	**(de) Figueiredo Sofia Soares (Portugal)**	Paintings from northeast Portugal: beyond script and art
12	**Fiore Danae, Acevedo Agustín (Argentina)**	Hunter-gatherer rock art in two regions of Central-Southern Patagonia (Argentina): contrasting visual themes, techniques and landscapes
13	**Franklin Natalie R., Habgood Phillip J. (Australia)**	The Venus of Hohle Fels and mobiliary art from Southwest Germany
14	**Furter Edmond (South Africa)**	Göbekli Tepe, between rock art and art
15	**Giorgi Dawn Marisa (Australia)**	Chalawong: a forgotten site
16	**Hameau Philippe (France)**	A commemorative schematic iconography in the Neolithic period
17	**Hegg Chris (USA)**	My first petroglyph language symbols deciphered
18	**Honoré Emmanuelle (UK)**	Pastoralists' paintings of WG 35, Gilf el-Kebir: anchoring a moving herd in space and time
19	**Imam Bulu (India)**	What kind of society produced the rock art of my region (Hazaribagh, Jharkhand,East India.)? Why was it produced, and to whom was the rock art addressed?
20	**Krasniqi Shemsi (Kosovo)**	The Reflection of the Social Structure through Rock Art: the case of Zatriq, Kosovo.
21	**Lambert Arnaud F. (USA)**	The cup-marked stones of Chalcatzingo, Morelos, Mexico, a multi-millennial tradition of inscribing the landscape The olmec-style rock paintings of Oxtotitlán Cave: new insights and interpretations
22	**Lewis-Williams David (South Africa)**	San Rock Art
23	**Lødøen Trond (Norway)**	Rock art as Mortuary Practice in the Late Mesolithic of Western Norway

24	**Lopes Cristina (Portugal)**	The Rock Art for Art's Sake; an aesthetic approach
25	**Lymer Kenneth (UK)**	The petroglyphs of Terekty Aulie in Central Kazakhstan
26	**Magnotta Angelina (Italy)**	Rock art of high Lunigiana (Massa-MS,) Italy. *Rock art park of Lunigiana*
27	**Mailland Federico (Switzerland)**	Rock art and pebble drawings: different ways to communicate the same message?
28	**Malik Subhash Chandra (India)**	Rock art: a universal creative act
29	**Martin Michel (France)**	Comparative study megaceros-rennes
30	**Nandadeva Bilinda Dewage (Sri Lanka)**	Rock art of the Vedda people of Sri Lanka: When, Why, and to Whom?
31	**Nankela Alma (Portugal/Namibia)**	Rock Art: When, Why, and to Whom? Rock art of Omandumba Farm on Erongo Mountain, Namibia
32	**Nash George (UK)**	Secret signs: mechanisms behind the construction of later prehistoric rock art in Western Britain
33	**Nhamo Ancila (Zimbabwe)**	Encoding identity: spatial motif variation as an answer to when, why and for whom rock art was produced in Zimbabwe
34	**Ogawa Masaru (Japan)**	Rock Art: When, Why, and to Whom? Rock Art from Temiya and Fugoppe Caves, Japan
35	**Prasad A.K. (India)**	Rock Art of Southern Bihar and adjoining Jharkhand in Eastern India: When, Why and to Whom?
36	**Rifkin Riaan (South Africa)**	Pleistocene figurative portable art from Apollo 11, southern Namibia
37	**Ronen Avraham (Israel)**	Why Art?
38	**Santos Estévez Manuel (Portugal)**	Rock Art: When, Why, and to Whom? Atlantic rock art in Galicia and northern Portugal
39	**Searight-Martinet Susan (Morocco)**	Oum La Leg: a Rock Art site in the moroccan Anti-Atlas: who did the engravings, when and why?
40	**Sharpe Kate (UK)**	Connecting the dots: cupules and communication in the English Lake District
41	**Soukopova Jitka (UK/Italy)**	Tassili paintings: ancient roots of the current African beliefs?
42	**Tiwary Sachin Kr. (India)**	Rock art: Origin, purpose and variety
43	**Varma Radhakant (India)**	Rock Art: When, Why and to Whom?
44	**Waller Steve (USA)**	Communicating with the Spirits. *Artists Who Pre-Dated Sound Wave Theory Selected Echoing and Reverberant Environments to Depict Echo and Thunder Spirits in Attempts to Communicate with these Spirits*
45	**Welté Anne-Catherine, Lambert Georges Noël (France)**	Elements to approach the Magdalenians'motivations, who lived in the Fontalès'rockshelter (Tarnet-et-Garonne, France)

To ATELIER Research Center in Conceptual Anthropology
Via G. Marconi 7, 25044 Capo di Ponte (BS) Italy, atelier.etno@gmail.com, +39 036442392

Forthcoming book "PREHISTORIC AND TRIBAL ART: WHEN, WHY, TO WHOM"
ORDER FORM RESERVED TO THE AUTHORS (DISCOUNT OF 25% on cover price of 40,00 €)

Shipping address

First Name .....

Last Name .....

email address .....

Street .....

Postal Code .....

City .....

State/Province .....

If you wish to receive a receipt, please indicate below:

Company or Name .....

Vat ID Number (eventual) .....

Street .....

Postal Code .....

City .....

State/Province .....

Please indicate number of copies and shipping zone
(**Zone 1**: Europe - **Zone 2**: Africa-Asia-Americas - **Zone 3**: Oceania)

N. OF COPIES	PRICE OF VOLUME DISCOUNTED -25%	SHIPPING COST	TOTAL
❑1	30,00 €	❑ZONE 1 - 11,00 € (1 pack)	41,00 €
		❑ZONE 2 - 17,00 € (1 pack)	47,00 €
		❑ZONE 3 - 23,00 € (1 pack)	53,00 €
❑2	60,00 €	❑ZONE 1 - 18,00 € (1 pack)	78,00 €
		❑ZONE 2 - 28,50 € (1 pack)	88,50 €
		❑ZONE 3 - 34,00 € (1 pack)	94,00 €
❑3	90,00 €	❑ZONE 1 - 29,00 € (2 pack)	109,00 €
		❑ZONE 2 - 45,50 € (2 pack)	135,50 €
		❑ZONE 3 - 57,00 € (2 pack)	147,00 €

Payment methods:
❑ PayPal (reference address: *atelier.etno@gmail.com*)
❑ Bank Transfer to:
Atelier Research Center - via Marconi 7, Capo di Ponte, Italy
IBAN: IT 81 N 03359 01600 1000000 61142 | SWIFT: BCITITMX

❑Enclosed receipt or details of payment.

Date..... Signature.....

DISCUSSION FORUM

THE ROLE OF RELIGION, MAGIC AND WITCHCRAFT IN PREHISTORIC AND TRIBAL ART

UISPP-CISENP (International Scientific Committee on the Intellectual and Spiritual Expressions of Non-literate People)

ART AND RELIGION PROJECT

What is the role of religion, magic and witchcraft in prehistoric and tribal art? What is the function in visual art of myths and other aspects of oral traditions? What is the function of rock art as an intellectual and spiritual expression of non-literate peoples? We are pleased to invite you to reply to one or more of these queries. Please focus your text on specific examples or ideas.

The intellectual and spiritual motivations of art have produced many theories since the first attempts at explaining prehistoric art over a century ago. Various aspects of 12 major theoretical approaches to the topic were summarized some years ago (E. Anati, *Aux origines de l'art*, Paris, Fayard, 2003). Recent research is bringing to light a broader variety of conceptual concerns in the creation of rock art and mobile art in Africa, America, Asia, Europe and Oceania. The diffusion of firsthand information may contribute to updating the state of the art. Try to make your paper a valid contribution to attain this goal.

The confrontation of ideas and of methods turns out to be an outstanding contribution to the open forum of non-conventional scientific analysis. A few months ago we addressed the query: 'Prehistoric and Tribal Art: When, Why and to Whom?' to a number of colleagues and had a response far beyond expectations. This WWW project received texts from over 100 scholars and thinkers from five continents. Out of them, about 50 papers are now in the process of being edited and will be published in volume form, representing the most interesting contributions from some 30 countries and different cultural environments. The pressure on fast reply contributed to dynamic participation. The cooperation between UISPP-CISENP and ATELIER Editions turned out to be a lucky formula.

This new project (Art and Religion: AR) is following the same concept. Short papers of 1,500–3,000 words are allowed, with up to four illustrations each. Illustrations (definition 600dpi) should be separate from the text and each illustration should have a caption and be pertinent to the topic selected. The papers that are most meaningful for a worldwide debate are going to be published first in the international magazine EXPRESSION and then as a volume. Please indicate the title you intend to present. Your fast reply will be appreciated. Try to avoid general conceptual disquisitions, unless they are of a strongly innovative nature. The deadline for the presentation of the final paper is 30 October 2015.

We look forward to the pleasure of reading your paper. Reply to: "Art and Religion Project" atelier.etno@gmail.com.

Many thanks for your cooperation and cordial regards.

E. A.

NOTE: THE PRESENT ISSUE IS DEDICATED TO PAPERS OF THE WWW PROJECT (PREHISTORIC AND TRIBAL ART: WHEN, WHY AND TO WHOM?).

FORTHCOMING NEW DEBATES

Readers are proposing themes for debate. Some of them may be considered in the near future:

1 - The role of **women** in prehistoric and tribal art.

2 - **Food** as a means of socialization in prehistoric and tribal societies.

3 - **Navigation and colonization** among prehistoric and later non-literate societies.

4 - **Sex, food and territory**: from the Pithecanthropian to Sigmund Freud, Karl Marx and Mao Tze Tung.

Proposals of papers and suggestions on possible developments of these and other issues are welcome.

Dear Reader, You are invited to indicate your interest in participating in one of these topics by proposing the title of your suggested paper.

Contents

Celebrating Three Hundred Years of *Mani* Stone Carving at the Tibetan Buddhist Site of Gyanak Mani, Yushu TAP (PRC)

Monia Chies
Phd Candidate, Central Asia Department,
Humboldt University Berlin, Germany.
Lecco, Italy.

In the Tibetan Buddhist tradition, *mani* stones are included in the three supports of worship (Tib. *rten sum*)[1] which are three kinds of artefacts that symbolize Buddha speech, Buddha body or Buddha mind. Among these, the mani stones (figure 1) especially embody the speech of Buddha as they are inscribed with sacred syllables that are carved manually or believed to be of the self-manifest variety.

From a geographical point of view these carved stones are well-diffused in all Tibetan regions. They can be singly positioned or, more often, piled up in heaps or walls that can be found at various places, such as mountain passes, temples, sky-burial sites, pilgrimage places, along the streets, in the grasslands or in rivers or lakes. The *mani* stones, whose appellation clearly derives from the popular mantra of Avalokiteśvara, 'Ohm Ma Ni Pad Me Hum', are closely related to the natural elements, such as water, earth and wind, that serve as conductors for the sacred syllables by spreading them to and for the benefit of all sentient beings.

This paper will examine some fundamental features of the *mani* stone carving tradition in relation to a specific pilgrimage site of eastern Tibet, acknowledged as the greatest *mani* wall in the world.

Gyanak Mani, the foundation of a power place

The pilgrimage site of Gyanak Mani (figure 2) is named after its founder, the great Gyanak Tokden,[2] a wandering yogi born in the eastern Tibetan area of Chamdo, who travelled throughout China, India and Tibet. According to his biography,[3] he visited several

Fig. 1. *Mani* stone of the Gyanak Mani. Hand-engraved Avalokiteśvara mantra, 'Ohm Ma Ni Pad Me Hum', with carved floral decorations. The *mani* stone nestles among piles of other engraved stones which form the mani wall. (Photo by M. Chies, 2012).

Buddhist holy sites, such as Wutai Shan, abode of the Bodhisattva Manjushri, and Mount Emei, where the Bodhisattva Avalokiteśvara appeared to him.

During his journey through the Sichuan area, a prophecy of Green Tara advised him to head towards the 'land of Ga'. In past times, this toponym was used to indicate the geographical area of the current Yushu Tibetan Autonomous Prefecture (TAP), situated on the northern side of the Tibetan Khams area, nowadays part of the so-called Ethnographic Tibet and administratively included within the borders of the Qinghai Province (China). This is the place where the great Tokden identified the right terrain for his practice, the village of Sengze (Tib. *seng ze*).[4]

Following the indications received by Avalokiteśvara, he found a small meditation room located on a hillside whose topographical shape resembled an elephant's head. From this place, called Dongna (Tib. *gdong sna*) hill, he spontaneously visualized three maṇḍala sites

1 Dowman, K., 1997, *The Sacred Life of Tibet*, London (Thorsons), p. 135.

2 Tib. *rtogs ldan*, Yogi.

3 The historical data related to the life of the great Gyanak Tokden (Tib. *rgya nag rtogs ldan byang chub 'phags dbang bstan'gro nyi shar*) and to the foundation of the Gyanak Mani site are translated by the author of this article from the work of Samten Tsering, who worked on the translation of the original biography (Tib. *nam thar*) from Tibetan to Chinese.

- Samten Tsering, 嘉那－道丹松曲帕旺与嘉那嘛呢文化概论, 'Jiana – Daodan Songqupawang yu Jiana Mani Wenhua Gailun', 人民出版社, Beijing 2012.
- Samten Tsering, 甲那道丹松曲帕旺传记—三信大海新月, in 安多研究 藏学论文 'Jiana Daodan Songqupawang Zhuanji – Sanxindahaixinyue', in Amduo Yanjiu, Zanxue Lunwen, n. 2, 2006.

4 Ch. 新寨村 Xinzhaicun.

Fig. 2. The Gyanak Mani complex, Sengze village, Yushu TAP. Front side (facing south) of the circumambulation path, reconstructed after the 2010 earthquake. (Photo by M. Chies, 2013).

distributed in this dolphin-shaped Tibetan valley and therefore started disclosing the local sacred geography. From an anthropological point of view, this process of place-making (or place empowerment) can be described as 'a transformation of perception' as much as 'a transformation in the landscape', for the spiritual practitioners have developed the ability to realize that which was already present within the geographical domain and in so doing, further enhance and energize it.[5]

After 25 years of ascetic retreat inside the hermitage (1690–1715), Gyanak Tokden revealed his pure vision, rendering it available to all sentient beings. On these bases, precisely 300 years ago, in the wood-sheep year of 1715, the foundation ceremony of the Gyanak Mani site took place and on this occasion the local traditions of *mani* stone carving and ritual dances were established and transmitted to the people of Sengze village by the Great Tokden.

The sacred land of Sengze as a terrain for Buddhist practice

Generally speaking, 'maṇḍala installation' and 'obliteration of the landscape'[6] procedures are common subjects of traditional Buddhist pilgrim guidebooks (Tib. *dkar chag*).

In the case of the Gyanak Mani, all of the three maṇḍala sites are abodes of Chenrezig (the Buddha of Compassion, also known as Avalokiteśvara), sometimes shared together with other important Buddhist deities. In order to understand the establishment of the carving tradition in Sengze, the identification and revelation of these sacred lands is a fundamental step, since it actually led to the shaping of a terrain for religious practice and, consequently, of long-lasting cultural and organizational patterns within the local community.

In Nemgothang (Tib. *gnas mgo thang*) which literally indicates the 'head part' of the village, lies the first maṇḍala site. According to the yogi's biography, this is a 'holy place' where the prayers and desires of all sentient beings find their fulfilment. It was considered to be the centre for both religious and entertainment activities, such as horse racing, picnics, community gatherings, traditional local dances performed by men (Tib. *spro spro*), chant and incense offerings, which were held in Nemgothang especially in the summertime.

Sengze's mountain valley stretches in a north–south

5 Stutchbury, E., 1999, Perceptions of landscape in Karzha: "sacred" geography and the Tibetan system of "geomancy", in Huber, T. (ed.), *Sacred Spaces and Powerful Places, The Library of Tibetan Works and Archives*, Dharamsala, pp. 154–86, 165.

6 Buffetrille, K., 1998, Reflections on pilgrimages to sacred mountains, lakes and caves, in McKay, A. (ed.), *Pilgrimage in Tibet*, Curzon Press, Richmond, pp. 18–34, 21; Ramble, C., The politics of sacred space in Bon and Tibetan popular tradition, in Huber, *Sacred Spaces and Powerful Places*, pp. 3–53, 28.

Fig. 3. 'Six-stones Six-syllables'. Gyanak Mani's most popular *mani* stone typology. Engraved by means of electric tools. (Photo by M. Chies, 2010, a few days before the earthquake).

direction and the second maṇḍala site is located on the south-eastern side of the village, along the Tashi river. It was here that the Lotus Born appeared together with Marpa, Milarepa and Takpo Lhaje, as well as other Buddhas and Bodhisattvas, so it was named 'Lhazom Lungpa' (Tib. *lha 'dzom lung pa*), translated as 'valley of the deities'gathering'.

On the right side of this valley there is a place named Dosola (Tib. *rdo so la*) meaning 'mountain of sharp-edged stones', which is the source of the white-stone material used to carve the *mani* stones. According to the scriptures, on top of this jade-green mountain slope there is a huge white-rock boulder that looks like a stūpa. At the bottom of it, soft and spotlessly white stones (Tib. *ka ma ru pa*) suitable for carving can be collected. A special feature of these white marble stones is that even if they are not carved with mantras, once placed on the *mani* wall, they are as valuable as other carved *mani* stones, for an enlightened-mind would see self-manifest sacred syllables appearing on them.

More generally, the custom of carving stones extracted from a specific sacred mountain area such as Dosola is a distinctive trait of the Gyanak Mani site, which makes it unique among the other *mani* walls in Tibet.[7]

Finally, the third maṇḍala coincides with the location of the *mani* wall site situated at the core of the entire sacred landscape. According to Buddhist philosophy, this maṇḍala of Chenrezig is the place where all the sentient beings are separated from the boundless sufferings of the six realms of saṃsāra, therefore its circumambulation will lead to the attainment of additional merits and virtues.

The importance of this third maṇḍala site is clearly explained in the prophecy of Avalokiteśvara, fulfilled by Gyanak Tokden with the establishment of the pilgrimage site (Tib. *gnas-skor*): 'Start building a mani wall as long as an arrow shot, so that, looking at it, the future generations will emerge from wicked interests and will have the strength to reach their liberation.'

Mani stones, carvers and pilgrims

Historically speaking, the practice of stone carving and the piling up of stones[8] in Tibet dates back to the pre-Buddhist era. Evidence of it can also be found in the biography of the Great Tokden, since during the Gyanak Mani's foundation ceremony, a Bonpo stone (Tib. *ma tri mu ye*) was found and used to build the first pile of *mani* stones at the pilgrimage site.

In this context, a first consideration is certainly related to the content of *mani* stones and the way local people refer to these power objects.[9]

7 Comment by Samten Tsering, 甲那道丹松曲帕旺传记—三信大海新月, in 安多研究 藏学论文, op. cit., p. 45.

8 Concerning the use of stones in the Tibetan tradition, see also: Tucci, G., 2009, *Religions of Tibet*, New York (Routledge), pp. 175, 210.

9 Chies, M., 2014, Post-Earthquake Death Rituality and

The Gyanak Mani's most traditional *mani* stone is called *rdo drug 'bri drug'*, translated as 'six-stones six-words', since each syllable of the Avalokiteśvara's mantra 'Om Mani Padme Hum' is engraved on a different stone (figure 3). In the Yushu area, there are specific terms used to indicate *mani* stones, depending on the local dialect and on the sacred text inscribed on them. The term *mani* is frequently used in a more general way to indicate votive stone tablets engraved with any mantras or more complex sacred scriptures.

Fig. 4. Carvers at work with electrical machines behind the Sengze *mani* wall. (Photo by M. Chies, 2014)

Fortune, good health, protection and the expiation of bad deeds are among the most common motivations listed by both carvers and pilgrims who carry out rituals around the Gyanak Mani site, especially on the occasion of the main Tibetan Buddhist ceremonies.

As stated by the founder, through the ritual practice at the Gyanak Mani the pilgrim can accumulate merits that will lead to complete liberation from the cycle of rebirths, the saṃsāra.

Experienced carvers living in Sengze underline the importance of carving deep syllables, so that the 'soul' of the deceased (Tib. *rnam shes*) will be able to drink the water collected within the engraved sacred words. In their mind, each syllable of the compassion mantra stands for one of the six realms of rebirth reported in the Tibetan wheel of existence, namely, the three superior realms of gods (OHM), semi-gods (MA), human beings (NI) and the three inferior realms of animals (PAD), hungry ghosts (ME) and hell (HUM). Merits can therefore be accumulated for oneself or transferred to others, above all to a deceased person. For example, in the past, herders would barter yaks for *mani* in order to add them to the *mani* wall and improve a dead relative's spiritual welfare. Besides that, carving the *mani* mantra on boulders and on cliffs near the village was a common post-death activity carried out by the male members of a family[10].

Today, as in the past, elderly Yushuers frequently express their desire to move to Sengze village in order to spend the last part of their lives practising around the *mani* wall or by simply living there, because 'this is a good place to die'(Tib. *shi sa yag po*).

These ethnographical data therefore confirm the close relation between the Gyanak Mani site and the Tibetan Buddhist conceptions of afterlife, in both a tantric and a ritual way.

A third fundamental component of a *mani* stone frequently stressed by the villagers is the importance of one's intention or motivation (Tib. *mos pa*) during the pilgrimage rituals. The faithful attitude of the practitioner is an essential requirement and it can also

Cultural Revitalization at the Tibetan Pilgrimage Site of Gyanak Mani in Yushu (West China, Qinghai'), in Botta, S., Canella, T., and Saggioro, A. (eds.), *Geografie del mondo altro. Prospettive comparate sugli spazi sacri e l'aldilà, Morcelliana*, SMSR Vol. 1, pp. 318–40, 328–31.

10 Dkon mChog dge legs; Stuart, C.K., 2009, The Sengze village Ma Ni, in *Asian Highlands Perspectives*, 1, pp. 295–312, 308.

be described as the value of practising with a 'good heart' (Tib. *sems bsang po*), whose absence deprives the ritual of its efficacy, despite the meaning of the engraved mantra or the number of koras (Tib. *skor ba,* circumambulation) carried out by the pilgrim.

Finally, multiple relations are embedded in a *mani* stone. On one hand, in Buddhist practice, it sanctions the relation between the pilgrim and the *gnas* (*né*, sacred place), it brings into question matters of purity and the social production of a new status for the pilgrim, who through the practice of pilgrimage (commonly summarized in the formula 'prostration, offering and circumambulation') can obtain merits and acquire a 'ritually transformed body',[11] On the other hand, in the context of the Gyanak Mani, one must include the *mani* stones among the multitude of other items typically traded and exchanged on the occasion of religious festivals (medical herbs, cattle, precious stones, barley, etc) with the difference that the sacred stones are immediately placed on the *mani* wall. Indeed, the barter of *mani* stones for livestock and butter was an important moment of interaction between villagers and nomads in Sengze village, in order to fulfil mutual needs: principally, while the former would gather food supplies, especially in winter, the latter would trade yaks for *mani* stones for a 'question of purity of heart'. [12]

Three hundred years of carving tradition

The Gyanak Mani is a pile of carved stones whose continuous tendency to grow is evidently the result of the huge amount of *mani* stones commissioned and added every year by the pilgrims. In this respect, the villagers often recall the foundation day by quoting the Great Tokden's words:

'In the future, this *mani* wall will rise up to the scale that one would not see a man riding a horse and holding a long spear on the opposite sides of the wall.'

Archival records from the Gyêgu Monastery[13] report that in 1954 the Gyanak Mani measured about 250 m in an east–west direction, 40 m in a south–north direction and it looked like 'a snow-capped mountain as tall as a three-floor building'. Later on, during the Cultural Revolution (1966–76), the *mani* wall was progressively dismantled until it disappeared completely: at that time, all pilgrimage activities were prohibited and the *mani* stones were used for the construction of roads and buildings both in the village and in the urban centre of Yushu.

In the 1980s, religious practice was once again permitted; therefore the Gyanak Mani cultural complex was re-established and once again became one of the main economic resources for the locals. Since then, according to the villagers, the *mani* wall kept growing incessantly to the extent that in 2005, on the initiative of the local community, the Gyanak Mani was officially acknowledged as the greatest *mani* wall in the world by the Shanghai *Great World Guinness Book of Records*.

On 14 April 2010 an earthquake of magnitude 7.1 (Richter scale) destroyed the entire urban centre of Yushu, situated at 3,700 m of altitude, and damaged most of the nearby villages, Sengze included. More than 3,000 people died and the relief work was an arduous undertaking for all involved: local people, the army, relief teams and medical staff from different parts of China, monks from the nearby monasteries and volunteers of national and international NGOs. Parallel to these recovery teams it is certainly worth mentioning the work of a singular group called the Manistopa. During the post-earthquake period, this *mani* group, composed of hundreds of elderly Yushuers, has worked incessantly at various rebuilding sites for about four years, in order to extract, clean and restore thousands of old *mani* stones that were buried under buildings and roads during the Cultural Revolution and brought back to light by the earthquake.[14] Two years later, the recovered *mani* stones were returned to their original site, the Gyanak Mani, which fell into

11 Huber, T., 1999, Putting the gnas back into gnas-skor: rethinking Tibetan pilgrimage practice, in Huber, T., *Sacred Spaces and Powerful Places*, pp. 85, 93.

12 Dkon mChog dge legs; Stuart C.K., *The Sengze village Ma Ni*, p. 308.

13 As a toponym, 'Yushu' (Tib. *yul shul*) stands for both the city and the Tibetan Autonomous Prefecture situated in the western part of Qinghai Province (PRC). A second toponym, 'Jyekundo' (Tib. *skye dgu mdo*), meaning 'the gathering place of all creatures', also abbreviated as 'Gyêgu' (Chinese Pinyin 'Jiegu'), indicates the city. The monastery of Gyêgu which belongs to the Sakya Buddhist school is therefore the main local monastery.

14 Chies, Post-Earthquake Death Rituality and Cultural Revitalization at the Tibetan Pilgrimage Site of Gyanak Mani, pp. 334–6.

the Ten Priority Projects of the Yushu reconstruction agenda and was completely restored under the direct supervision of the Urban Planning and Design Research Institute of Beijing Tshinghua University.

Generally speaking, during the last five years the whole Tibetan area of Yushu has undergone a deep process of reconstruction that has led to the shaping of a new Yushu city, the heart of a Tibetan eco-tourist area which sees the Gyanak Mani as one of the main tourist attractions. Accordingly, it is clear that during the last century different factors such as modernization, migrations and destructive events have strongly affected the carving culture of Sengze village and its social fabric. In particular, at the beginning of this century, local carvers began to carve by means of electrical machines that are now progressively replacing the traditional tools of hammer and chisel. At the same time, entire families have moved to Sengze, especially carvers from other Tibetan areas. Thanks to the new technology, new generations of carvers (figure 4) can work faster and on bigger stones extracted mechanically from the sacred quarry of Dosola.

All these are fundamental changes that in the near future will open up new perspectives, debates and narratives regarding the *mani* stones carving at the Gyanak Mani site.

Nevertheless, on the occasion of the 300th anniversary of its foundation, as a researcher and profound connoisseur of the *mani* stones' carving practice, it is my duty and honour to acknowledge the commitment of past and present inhabitants and carvers of Sengze who, through their hard work and under the guidance of the Gyanak Tokden and of his following reincarnations, have been able to develop and maintain the Gyanak Mani complex and the *mani* stones' carving tradition alive and vibrant until today.

The Petroglyphs of Huancor, Peru: Form and Meaning

David Delnoÿ
PhD student, University of Liège, Belgium.
Marcel Otte
Professor, University of Liège, Belgium.

Landscape as morpheme

Going about 30 km up the San Juan, a Peruvian river draining into the Pacific Ocean at Chincha Alta, the site of Huancor is found on the right bank (figure 1). Here, the wet valley is joined by a dry valley. The site is situated at the foot of an emerging crest, from a rocky tongue to the first escarpments (Hostnig, 2003). A copper mine overlooks the road at c. 90 m above sea level, but its exploitation during the Hispanic period has effaced evidence of earlier use. Charcoal is also visible 30 m higher (Uhle, 1924). The engraved rocks are divided into three concentrations (figure 2), like 'chapels' in this forest of symbols. Huancor also includes several built structures that have been noted but never studied in detail. Their characteristics

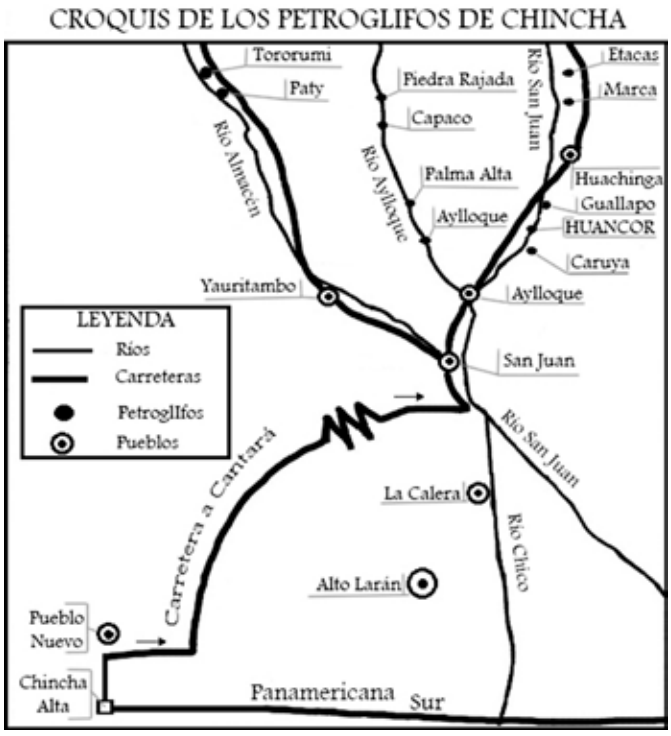


Fig. 1. Schematic map of Chincha Alta. Sites are identified by their village structures (ʘ) or their petroglyphs (●). The valley of the San Juan River is lined with many sites, suggesting a route punctuated by stages. Provided by Martial Borzée and the Universidad Peruana del Arte Orval.

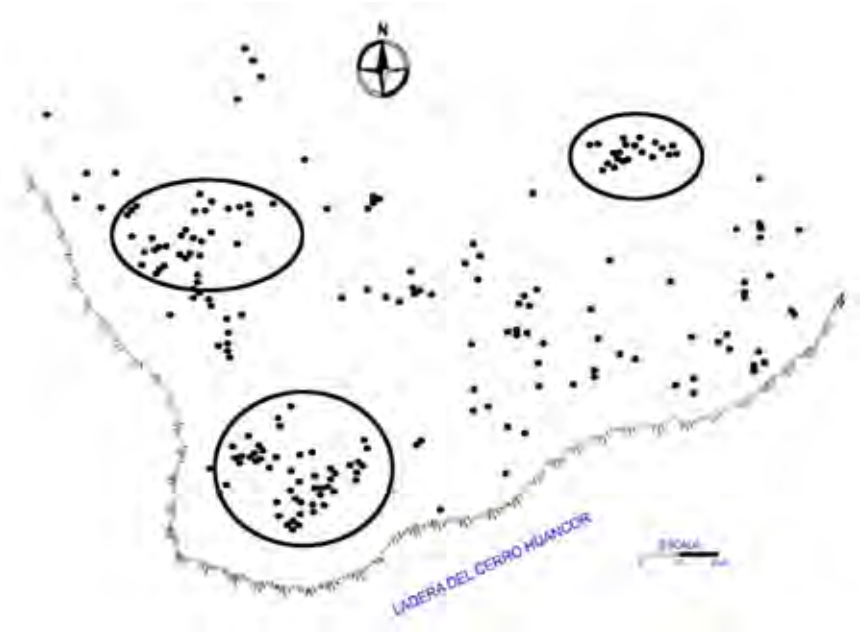


Fig. 2. Drawing of different engraved rocks at Huancor. The escarpment on the edge of the valley is indicated by oblique lines and the engraved rocks by dots. These appear to form three concentration zones that may have been joined by paths that are barely visible and forgotten today.Provided by Martial Borzée and the Universidad Peruana del Arte Orval.

would suggest, however, a funerary context and the structures indicate different construction phases. We mention them here for information purposes only, but more in-depth interpretation would require a specific mission, programmed as part of the overall study of the site. Considered in a broader view, Huancor seems to be a stage in the trajectory of the San Juan River (figure 1). The study of Huancor currently in progress is thus being undertaken at two scales of analysis: at the site level and as part of a larger system.

The physical image, reflection of a myth

Five principal types of engraved signs can be defined: anthropomorphic figures, zoomorphic figures, punctuations, circles, crosses and 'diverse' (Delnoÿ, Otte, 2015). The first is typically composed of upright personages, facing forward, whose attributes or details appear to indicate shamans (Eliade, 1978). Also included are some quadrupedal anthropomorphic representations, seen as costumes or disguises. Some of these suggest a circular dance. A smaller number of images shows humans in profile and movement (figure 3). This first group suggests shamanism. The personages stare directly at the spectators while addressing a higher truth. These are complex rites, for which the representations at Huancor inadequately capture the deeper meaning in the absence of a key to interpretation. Shamanism involves three parts: a higher and transcendent truth, humanity and a person placed between these realities. The nature of communications between divinity and humanity remains to be established. Several of these anthropomorphic figures are included in scenes where they are associated with recognizable beings such as llamas and felines. No hunting scenes have been found at Huancor. Taken together, the creators of these images may have been agro-pastoralists.

The head-dresses of some of the anthropomorphic figures suggest maize and its growth pattern, supporting this interpretation. The pastoral aspect is seen in the representations of llamas, generally in groups, such as a herd and/or a caravan. Felines are less common. Sometimes included in scenes, they do not appear to be directly linked to the anthropomorphic figures, but are rather detached. They do not appear to reflect a disguise or metamorphosis, as some of the llama representations do, but undeniably reflect a higher reality.

This hypothesis is reinforced by a scene showing a jaguar leaping towards the sun (figure 4). Similar scenes are known in the Chavín tradition, where the figure of a jaguar is combined with a human, notably in the famous El Lanzón. A major work found *in situ* in the city of Chavín de Huantar,[1] this takes place in a room inside a temple (Steele, Allen, 2004). Upright, it captures the sun at winter solstice, 21 December. On this date, the sun rises in front of the stele, its rays cross the court in front of the temple and shines into the darkness where the Lanzón is found (Rick, 1997). Such application of cosmic mechanics is comparable with that observed at Newgrange in Ireland. The scene with the jaguar and the sun evokes twilight, both as death and as becoming (Eliade, 2011).

1 The city of Chavín de Huantar is located at the confluence of two rivers. Such confluence zone zones are sacred to Andean populations and are called *tinkuy* (Steel and Allen, 2004).

Fig. 3. Photo and drawing of an engraved rock. Two personages are separated by a whiteish quartzitic band. The upper edge of the engraved side is bevelled. A serpent undulates towards one of the personages in movement. The second extends the arms and seems to evoke an attitude of dancing or flight.Photo by the Universidad Peruana de Arte Orval. (Drawings by David Delnoÿ).

Among the zoomorphic representations, llamas and felines are complemented by birds and serpents. Llamas are most often in groups. However, one representation shows an isolated llama. Of large size and composed of dots, only the head is made with a continuous line. This image is like one of a feline, also at Huancor, and the two images can be interpreted as reflections of transcendent realities. Felines seem most often to be associated with myths. Isolated, they evoke a certain detachment faced with a human reality.

In the zoomorphic type, birds form the most varied group and include chicks and adults, coastal species and the condor, which indicates inland regions. Birds can appear alone or associated with geometric motifs, for example stars and circles. No punctuated representation is known. However, some images have a stippled fill. The condor indicates the sun by the position of its wings. Finally, serpents are standardized and have a triangular head and undulating body in symmetrical curves.

Of these figured representations, we emphasize the mediating nature, via the shaman, between the spectator and a higher world. In this view, the groups of llamas form part of sources of prosperity and security through the absence of predators. Birds are mediators between earth and sky, as observed in many cultures, from representations at Çatal Höyük (Turkey) to the Christian Holy Spirit, to the Greek harpies. The condor here is emblematic, both representative of a divine entity and of a sacred animal. Geometric figures seem to suggest a link with celestial elements, such as the planet Venus.

Punctuated components correspond to filled or empty circles 1–2 cm in diameter. At Huancor, their association forms lines for which the separator character is used: animals, complements to other images and geometric figures. The diverse category includes complex elements such as cells with an interior

Fig. 4. Photo and drawing of an engraved rock. A feline comes out of the rocky angle at twilight. The shadows take away the day's sunlight. A mythical battle, this scene recalls cyclic time and the rebirth confirmed by the rising of the sun.Photo by the Universidad Peruana de Arte Orval. (Drawings by David Delnoÿ).

decoration and elements based on spiral movement.
Huancor seems to be a place of encounter between realities, and furthermore, it is a real cosmic evocation. As part of a series of sites along the course of the San Juan, Huancor offers an interpretive window on to a millenary mythology.
A path for communication between humanity and divinities, these images are above all the means to embody this connection. Destined for both gods and humans, they participate in the dialogue between realities. We witness here an interface where the real and dreamed are associated. We cannot understand it as the prerogative of one of these realities; does the threshold belong more to the door or to the one entering? Each of these components is linked to the others. Conscious of this interdependence, humans begin the dialogue with a higher reality and preserve this balance.

References

Delnoÿ, D.; Otte, M.
2015 Huancor: oubli et déclin d'un site d'art péruvien, *Archéologia*, pp. 14-15.
Eliade, M.
1978 *Le Chamanisme et les techniques archaïques de l'extase*, Paris (Payot).
2011 *Aspects du mythe*, Paris (Folio essais), pp. 56-73.
Hostnig, R.
2003 *Arte Rupestre del Perú. Inventario Nacional*, Lima (Editorial e Imprenta de la UNMSM), pp. 171-172.
Otte, M.; Delnoÿ D.
2015 Pétroglyphes de Huancor, Pérou, *International Newsletter on Rock Art*, 71, February 2015, pp. 25-29.
Rick, J.
1997 *Exploring Chavín de Huántar,* Stanford University, at http://web.stanford.edu/~johnrick/chavin_wrap/chavin/index.html, (accessed 5 February 2015).
Steele, P.R.; Allen C.J.
2004 *Handbook of Inca Mythology*, Santa Barbara (ABC-CLIO), pp. 130-132.
Uhle, M.
1924 Explorations at Chincha, in Kroeber, A.L. (ed.), *University of California Publications in American Archaeology and Ethnology*, 21, 2, pp. 91-92.

Göbekli Tepe, between rock art and art

Edmond Furter
Archaeological Society of South Africa, Johannesburg, South Africa.

Reliefs of figures on Göbekli Tepe pillar D43, are spaced in a universally standard peripheral sequence according to some of their typological attributes, and with their eyes on a standard axial grid. The same archetypal structure is expressed in all art worldwide, including painted San figures in South Africa. The gulf of time and space between the two works and cultures demonstrated in this article, confirms that the core content, 'syntax', and 'grammar' of art are universal. All artists and cultures express archetypal structure subconsciously, while on a conscious level we appropriate archetypes only by styling.

Where and when

Göbekli Tepe formal reliefs are emblematic of a transition to Neolithic in Mid-eastern Turkey, near Sanliurfa and Harran, involving advanced hunting (ropes and nets), prestige agriculture (ovis, bos, and buccrania pendants), and mixed economy (textiles and obsidian trade). Dating of pillar 43 in enclosure D, is within a succession of recycled structures from BC 9500 to 8000, in the Younger Dryas thaw. To my mind the age, position, structures, and styling of Göbekli Tepe offer a 'bridge' between Pre-Pottery Neolithic, and Bronze Age cultures. It may be contemporary with a vegetative theme era in Tanzanian rock art, at the transition to the Holocene, BC 12 000 to 8000 (Anati, 2004). The emphasis on reeds, perhaps grain, and abundant life in some Göbekli art, could be seen in the context of ecological recovery.
Before Göbekli, relief art occurs at some primary Ice Age resurgence sites, typically near mountains, such as Tuc d'Audobert, Gorge d'Enfer, Roc-de-Sers, Bedeilhac, and some North African sites. The Ice Age thaw from About BC 13 000 allowed a Magdalenian or Swiderian revival in Europe by 11 000, but about 10 900 an asteroid impact, eruption, or both, seems to have caused an icefall, glaciers covering plains, and floods (Collins, 2014). About 10 500 a Swiderian; culture again resurges; Hallan Cemi followed in

the eastern Taurus range; by 9500 some Göbekli Tepe enclosures; by 8500 Cayonu and Nevali Cori enclosures. About 8000 Göbekli Tepe was infilled, and soon Asikli Hoyuk and Catal Hoyuk houses arose. Another two millennia passed in the Middle East before the BC 6000 Halaf culture; 5000 Ubaid culture and predynastic art worldwide; 2900 Sumerian civilisation; then Nippur and history. In the Bronze Age, human-shaped relief pillars show metal weapons, tools and currency, linked to population increase.

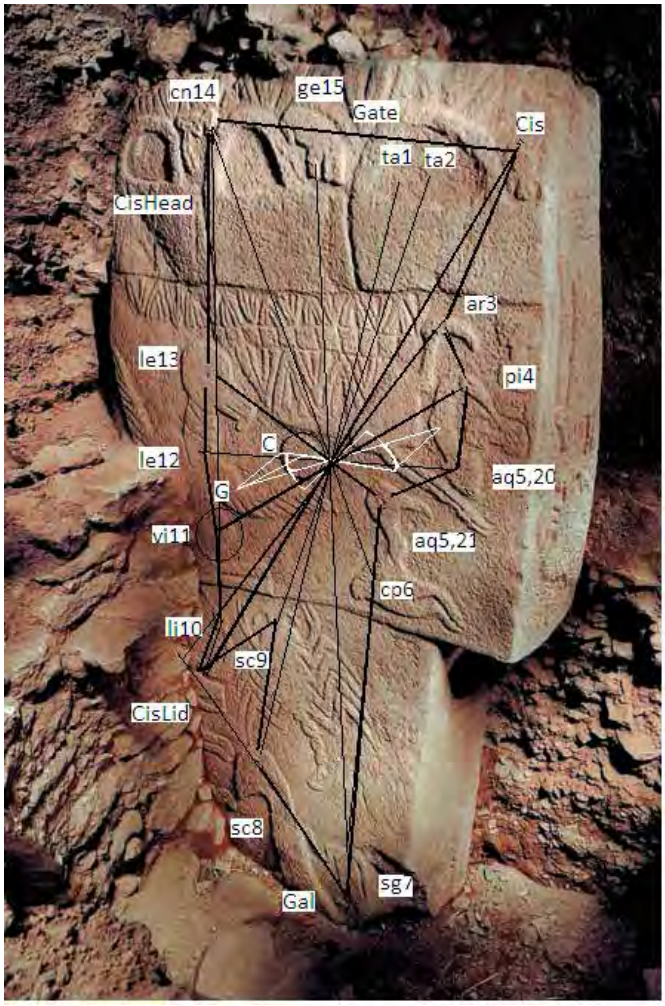
It is tempting to see Egyptian vulture emblems as diffused from Göbekli, but archetypal expression offers a simpler explanation. The Iko of Nigeria also erected stone slabs with relief detail of nose and chest on the edge, but chinless, and eyes on the sides.

In apparent contrast, a Khoe-San rock painting in the Neolithic-to-Iron Age transition in Ndedema Gorge, South Africa, shows complex economy people among antelopes at rest. San art endured on the fringes of waves of climate change, immigration, assimilation, creolisation, and genocide. Most Ndedema art is probably 9000 years younger than Göbekli Tepe.

Why this art

Göbekli Tepe seems to be a self-conscious political, ritual, construction, displaying its own artistic license. The motivations may be totemic and socio-political. The inspiration is apparently devotional and spiritual, prompting interpretations of 'temples' (Schmidt, 2006). Carving and viewing inspired designs, offer their own inherent compulsion and reward, as a seal of spiritual authenticity or blessing.

Stone technology seems to prompt relief art and ritual. Cores and blades are flattened spheres or hemispheres; transformed by pressure; hafted by composite glue; re-cycled; of practical, symbolic, prestige, ritual, and spiritual value. In Egyptian pre-dynastic palettes, the archetypal stone tool shape lends its frame to slate palettes, some with ecological or 'Eden' reliefs in abstract perspective, as if the stone adds perspective (Uspenski, 1975). Relief is more lifelike and transformative than engraving. Cylinder seals engraved by microlith points, leave relief imprints. Some of the meanings of art lie in the technique. Stone technology enables the universal motivations of food, sex, and territory (Anati, 2004), in practice as well as symbol. Coherent images also enable semi-conscious appropriation, and satisfy our impulse for rehearsal and hoarding (Eco, 2009).



Göbekli Tepe pillar D43 reliefs (Bertholt Steinhilber), with the subconscious typological sequence marked by astronomical labels, and the paired spacing of eyes marked by axial lines (Furter 2014).

In apparent contrast, animals in the San painting are in naturalistic style, and people are in expressive style. They are Tall people, or Flat people, as in the Göbekli pillar profiles, in Egyptian 'twisted profile'. The densely painted Ndedema shelter resembles a decorated cathedral. Motivations again include spiritual and archetypal impulse, as hinted in the Angus Dei antelope, similar to Egyptian and Christian emblems.

Art for whom

Göbekli Tepe reliefs could support the technology, rituals, oracles and aspirations of diverse descendants of survivors of the Younger Dryas in mountain ranges, and of generic Swiderian culture (Settegast, 1990). Survivors may be pictured in the T-shaped pillars,

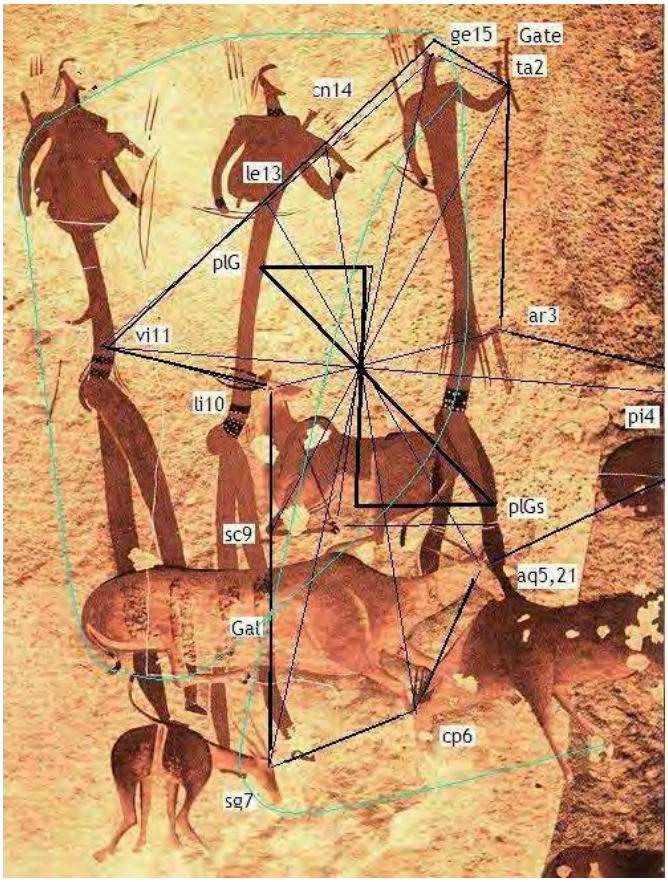


Fig. 2. Iron Age transition rock art at Ndedema Gorge, South Africa, nicknamed 'three magi' (SA Tourism), with the subconscious typological sequence marked by labels, and the paired spacing of eyes marked by axial lines (Furter 2014).

with engraved arms, wearing pendants, waistcoats, and decorated belts (Schmidt, 2012). If some of the builders had more Neanderthal genes than our residual level, then some may have resembled American Clovis people, with wide-set eyes and long heads. Arctic species and technology, near mountain springs, best survived the icefall, that may have been salty or sulphurous. The pillar people sustained their emergent pacts, politics, trade and social exchange in rituals, perhaps in idealised survival houses (Banning, 2011). They were replaced by re-emergent national cultures in river valleys.

In apparent contrast, the San painting seems less formal, even decorative, yet all San shelters, usually isolated, may have been ritual, initiation, and healing sites.

What is art

In the dominant archaeological paradigm, art supposedly illustrates and popularises conventionalised beliefs and rituals, spread by heritage, and adapted during diffusion. If so, art should have mainly conscious meanings, diverging along 'evolutionary' cultural branches. The historic paradigm does not recognise archetypes. Ouzman (1998) noted that "repeated patterns suggest that individual artistic inspiration was subject to some more widespread cognitive system." Alison Wylie proposed to "intertwine different strands of mutually supportive evidence, and use one strand to cover a gap in another... cumulative weight of disparate, multidimensional evidence and data can be rationally decisive... intertwined cable-like arguments are more appropriate in rock art research and archaeology, than chain-like arguments that fall down if one link is weak." (Wylie, 1989; 2002, citing Bernstein and Geertz). Anati (2004) called for global rock art data; separation by five economic phases; distinction between figurative, symbolic, geometric and 'psychogram' figures; identification of the syntax, grammar or structure of composition; and identification of common environmental, historic, and cosmic components. He noted a combination of compulsion and communicative development, while some stylistic elements seemed cyclic, and thus not evolutionary. Anati's challenge to WARA was ambitious; "The study of patterns in the grammar and syntax of prehistoric art in world-wide documentation... of complete assemblages. Single figures, like single words, do not allow interpretation of cognitive process."

Visual structure in type, sequence, and spacing

Art is a directly testable cultural expression. The mindprint study started by isolating recurrent visual motifs in rock art, and comparing their prevalence in cultures, areas, eras, and media. Sixteen recurrent types were isolated, each consisting of a cluster of optional motifs. However the motifs all tested to be of equal prevalence in all cultures and media; each at a set frequency; in the same sequence; forming pairs of opposites by their eyes on an axial grid; and with two constant adjacent exceptions (a womb or unborn eye, and a heart or spiritual eye). Classical and modern 'fine' artworks intended as test controls, contain the identical triple-layered structure. This tupos (imprint), or mindprint, is highly predictive, and thus exposed to incidental and cumulative falsification (Popper,

1963), as well as deductive or paradigmatic falsification (Kuhn, 1966).

The typological cycle invites zodiac labels with their familiar calendric and mythic sequence, but it is also given numbers, since the common celestial zodiac expresses only 12 major types; omits the split types; omits four intervening features that appear in complex expressions; and omits four cosmic division points. The number sequence, for numerological and emblematic reasons, runs retrograde, against the order of seasons, but with the sequence of precession. Six central or polar features are labelled by astronomical terms, with the caution that myth, ritual, emblems and typology all derive from archetype, and thus resemble one another, but do not derive from one another. The average frequencies of some visual attributes of typological figures (characters) are:

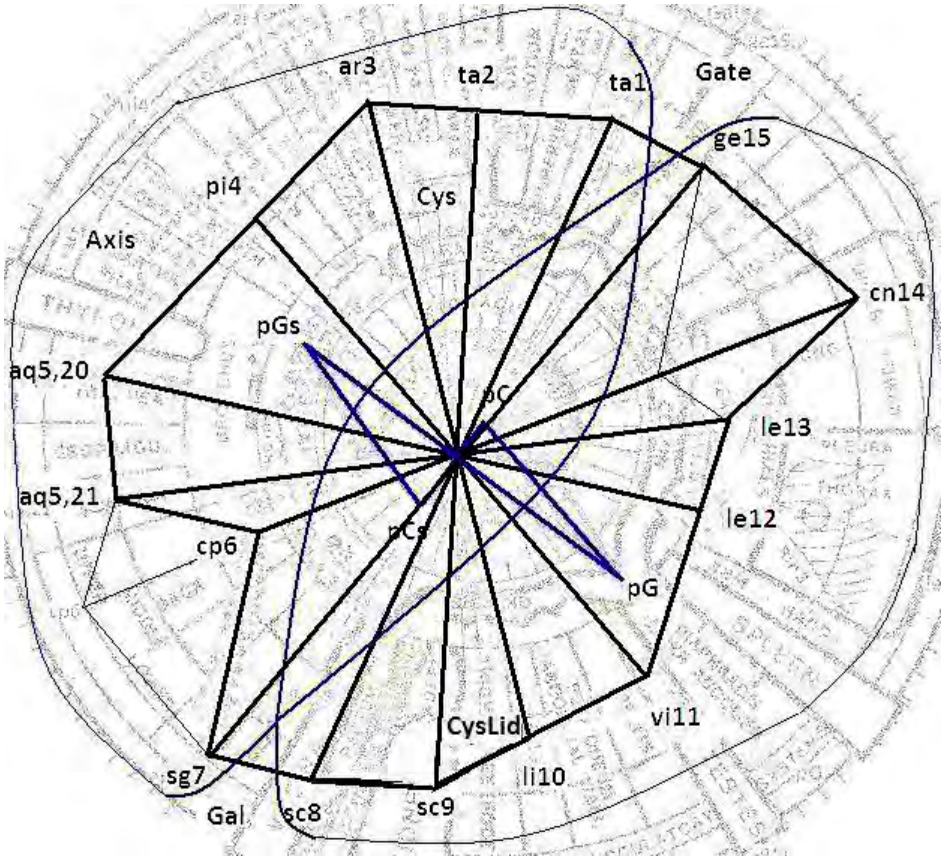


Table of the standard triple layer of typology, sequence, and axial spacing of eyes in visual expression (Furter 2014), over an iridology chart (Jensen 1991). Artists subconsciously express this structure, clockwise or anti-clockwise, as if on a transparent sphere or disc. Zodiac labels are used for the familiarity of their mythical, seasonal and conceptual sequence. Artists do not consciously intend analogies, but archetypal structure informs nature, perception, myth, ritual, calendars, zodiacs, alchemy, and emblems.

1/2 Taurus 48% twisting
1/2 Taurus 19% bovid
3 Aries 42% neck long or bent
4 Pisces 25% squatting
(Galactic south pole 65%; 50% limb-joint)
5 Aquarius 44% varicoloured
5 Aquarius 31% hyperactive
5 Aquarius 30% horizontal
5 Aquarius 24% large
6 Capricornus 48% ingress or egress
7 Sagittarius 25% bag or manifestation
8/9 Scorpius 34% bent forward
8/9 Scorpius 31% strength feat
10 Libra 53% arm/s V or W
10 Libra 34% with a staff
11 Virgo 87% 'eye' on her womb
(Galactic pole 81%; 68% limb-joint)
12/13 Leo 85% 'eye' on his heart
12/13 Leo 14% feline
12/13 Leo 11% inverted
12/13 Leo 10% weapon
14 Cancer 45% ingress or egress
15 Gemini 33% rope
15 Gemini 21% bag
15 Gemini 09% sceptre
15 Gemini 08% twinned.

Several less frequent attributes could be listed for each type. Polar features are also archetypal, but expressed by other markers, frequently limb joints, and not by eyes.

The current test is not comprehensive, and does not offer an absolute value of structural expression. Despite the limited core content, variations are near infinite. Attribute frequency variance is about 3%, in culturally mixed batches of 80 or more artworks. All

masters, and most novice artists, express mindprint. Some artworks express two adjacent, mirrored and interlocking mindprints with similar, but never identical features. Test results indicate a collective, universal, subconscious, compulsive, rigorous, and thus archetypal structure in visual expression. The structure is also expressed in myth, ritual, culture, perception, and aspects of nature, such as chemistry and reflexology. Differences between rock art and art are technical and stylistic. Some styling is diffused, camouflaging prior typological counterparts. No art is the origin of art or culture, all are untaught, and thus perpetually original. Anthropology and art history should accept archetype as the subconscious 'programme' in all cultures. Elusive cultural elements such as aesthetics, beauty, and inspiration, are universal, robust, definable, static yet varied, subconscious yet accessible.

Edmond Furter is the author of Mindprint, the subconscious art code (2014, Lulu.com). He is a researcher and editor.

Sources and references

Anati, E.
2004 Introducing the World Archives of Rock Art (WARA): 50 000 years of visual arts, in *New discoveries, new interpretations, new research methods*, XXI Valcamonica Symposium, Capo di Ponte, pp. 51-69.

Banning, E.B.
2011 So Fair a House; Göbekli Tepe and the Identification of Temples in the Pre-Pottery Neolithic of the Near East, in *Current Anthropology*, Vol. 52, No. 5, Oct 2011, (Univ. of Chicago Press, for Wenner-Gren Foundation for Anthropological Research), pp. 619-660.

Collins, A.
2014 *Göbekli Tepe: Genesis of the Gods: The Temple of the Watchers and the Discovery of Eden,* USA (Bear & Co).

Eco, U.
2009 *Infinity of Lists*, London (MacLehose).

Furter, E.
2014 *Mindprint, the subconscious art code*, USA (Lulu.com).

Jensen, B.; Donald V. Bodeen.
1991 *Visions of health; Understanding iridology*, USA (Avery).

Jung, C.G.;
Readings in the History of Æsthetics*, Ch 26; Art as Archetypal Form*. (Open source)

Kuhn, T.
1966 *The structure of scientific revolutions*, USA (Univ. Chicago Press).

Le Grice, K.
2009 Birth of a New Discipline, Archetypal Cosmology in Historical Perspective, in *Archai: Journal of Archetypal Cosmology*, vol.1, no.1.

Lewis-Williams D.; Pearce, D.
2012 Framed Idiosyncrasy, method and evidence in the interpretation of San rock art, *SA Archaeological Bulletin* 67, pp. 75-87.

Ouzman, S.
1998 Toward a mindscape of landscape; rock art as expression of world understanding, in Chippindale, C.; Taçon, P.S.C. (eds.), *The Archaeology of Rock-Art*,. Cambridge (Cambridge University Press), pp. 30-41.

Popper, K.
1963 *Conjectures and Refutations*, London (Routledge and Keagan Paul).

Schmidt, K.
2012 *Göbekli Tepe; a Stone Age sanctuary in South-eastern Anatolia*, translated by Wittwar M., Berlin (Ex Orienta, with ArchaeNova e.V.).

Settegast, M.
1986, 1990 *Plato prehistorian*, Rotenberg (Lindisfarne).

South African Tourism. KZN Ndedema Gorge 'Three magi' rock art photograph, at http://www.south-africa-tours-and-travel.com/san-people.html

Steinhilber, B.
Göbekli Tepe pillar D43 photograph, at Wikimedia Commons

Uspensky, B.A.
1975 'Left' and 'right' in icon painting, in *Semiotica*, 13 (I), pp. 33-39.

Wylie, A.
1989 Archaeological cables and tacking: the implications of practice for Bernstein's options beyond objectivism and relativism, in *Philosophy of the social sciences*, Vol.19, No.1, pp. 1-18, March 1989.

My first petroglyph language symbols deciphered in West Central Nevada

Chris Hegg
USA

Location: West Central Nevada, U.S.A.
Climate: High desert, above 4,000 ft.

Nevada is within the Great Basin desert region, where all the water flows into the basin instead of out. Many petroglyphs and pictographs survive along its entirety, left behind by people who lived in the region when it was more temperate through to modern times when the desert now reigns supreme. Within the Great Basin there exist rows of mountain ranges appearing like great caterpillars moving north. The intersecting base of these mountains with the valleys provides a great habitat where waters from the high snows melt, feeding the occasional stream or lake, and forested mountains give way to lower dry and desolate valleys,. For animals these regions are the life blood of survival as they provide food and water resources so scarce in the predominantly dry plains as a whole. It is no surprise then that man also frequented these locations to tap those resources vital to existence. The climate is high desert, above 4,000 ft.

Fig.1 Source Author of the rock shelter where the pictographs are located within.

Defining when a petroglyph was created has become one of the many challenges for modern man. Pictographs are painted in a panel format within close proximity to each other, much like the pecked-in petroglyphs. Simply the format of compiling multiple images together within a small area suggests language, but archaeology refers to it simply as rock art, alluding to the idea that symbols are nothing more than drawings to represent artistic functionality, rather than a written language.

Deciding upon which site to present out of the hundreds I visit was not easy. But this site was the obvious choice for me because it contained very few symbol differences, mostly circles and vertical lines. Inside a shallow overhang this site provides a look into how simple questions of when, where and to whom could be applied in the simplest format. Being a remote oasis in an otherwise dry region the location provides an independent setting, which should further reduce external interferences that could detract from the reasoning.

As seen in Fig. 2 taken in 1987 of the inside of the shelter (looking east), you can clearly see the white symbols painted at chest height in a central wall region of the overhang back wall. The symbols are drawn filling the flatter surfaces between the larger vertical cracks. A combination of chalk and water allowed the paint to be applied wet and the overhang protects the images from eroding from the elements. In the centre of the panel is one group of red symbols. As mentioned, the symbols consist mostly of circles and vertical lines in rows all trending in a horizontal swathe 3 ft wide by 20 ft long. Outlier symbols are present and the bottom portion of wall has seen flooding that possibly scoured off other symbols. The lower section is much deeper as looters have dug the sands searching for artifacts.

This panel is located on an east wall of a long narrow canyon that runs north to south for several miles. Inside the

canyon a year-round spring flows towards the north. The waters pass by this shelter and the canyon opens in this last section to 100 ft wide but remains narrow to the very end. Sheer cliffs of rock jut up hundreds of feet and once inside you are more or less prevented from getting out until you reach the end. Many animals visit this water source as the area for miles around has no water.

I first visited this canyon when a friend and his Shoshone Indian tribe guide took us to the panel when I was about 10 years old. The Shoshone explained that these circles represented all the women they stole from the Paiute while they camped at this site doing raids into the lands to the southwest. Any woman they brought back got a circle on the wall and the lines represented the visits or warriors present. I was perplexed then, even knowing that the circle was said to obviously represent a woman's sexual organ. For one he talked about all the many trips and years doing this, but only a handful of circles were present. A poor raiding life indeed! He spun around and showed that up on the cliff face opposite the site there is a crack which warriors shot arrows into in competition. Later stories told of people finding arrows in the cracks, so I suppose they did stay here as it is a perfect camp. But I believed the symbols were much older and had a purpose.

Years after this visit I had camped and stayed at the site many times hunting and enjoying the area and had run dry on the meaning of the site. The time was not wasted thinking about it, because later it allowed a breakthrough of the language in a very impressive way. Decades had passed and I found a simple site 30 miles from this panel that had even fewer symbols. I could see clearly it depicted a map of the location where it existed and the points of interest, most notably rock rings used as a hunt blind, the mountain walls

Fig. 2 Source Author Image of the natural rock shelter

defining the canyon and a spring. I was looking at my first symbol where understanding was confirmed and the very next visit was back to this panel. For the hunt blind was depicted as a circle. Could it be these were the same and if so it meant it was a story made by using a language?

Upon seeing the panel again I was saddened as I realized just how many circles existed with lines between. As I had lived in this region almost my entire life I knew every turn and object in the canyon and there was not even room for hunting blinds built of rock. If they were there they were useless as being too close and would now be washed away due to great flooding at various times. I realized the vertical marks in long lines did in fact mimic the cliff faces seen up the canyon which stirred my curiosity. I hiked up the canyon to the first curve I thought I had seen on the panel represented at a scaled-down size. I found nothing, n0 rings, no marks, just more cliff. I went back and forth several times to the panel (before the digital age) and though the matching up of the canyon was exact, the circles had no value. Where they overlaid on to the

Fig. 3 Source Author Looking across the face of the panel.

panel later? I headed all the way up the canyon, maybe missing where I should be. But again I found nothing of interest I had not witnessed before. I thought of our earlier hunting in the adjoining valleys which were shallower and I came up with the idea that maybe a bird's-eye-view into the region would help. So I started hiking upwards towards the destiny which I had not even realized yet. Upon climbing the vertical walls I realized why I had not done this before and almost turned around due to the hazards. But I kept going determined to find any clue on how to break the code. When I reached the first area some 30 ft up, I found I could not find hand-holds as the rocks were all loose. Hanging there in startled observation, I was looking at a wall of stacked rocks I attempted to grab. I scurried up more to bear witness to small neatly kept hunt blinds built on the cliff-face ledges. As I entered the first one there were more attached to it going around the cliff wall on a slight ledge around and out of sight. Looking up the canyon from this elevation I found blinds on both sides of the canyon as far as the eye could see. All the times I had hiked through I had never looked up beyond seeing the canyon's beauty. Blinds being camouflaged right before my very eyes was embarrassing and astonishing all at the same time. I realized if I was a hunted deer I would have no chance.

I hurried back to the panel to draw a map, the most predominant aspect visible being the semi-circle of hunt blinds all together and laid out in a U-shape with the end circle being very small and with a flat wall in it. This setup was the exact blind group I had been standing in before. The circles did represent the physical presence of the hunting blinds, every single one of them. And the actual face of the rock wall used to paint on actually accentuated the curvature of the canyon and so they incorporated it to help define the miniature scale map, so that the reader could understand better.

A group of people, be it Indians or earlier ancient people, realized this site was a hunting site worthy of return. The site's hunting ability was upgraded to include stone structures in the canyon and beyond, and a map of the hunting site was drawn on the wall where anyone entering would find it first. It was left to help everyone use the site properly by defining the hunting blinds and layout. The people using the site created the panel and many kept it updated with slight changes overlaying older paint. The language consisted of only a couple of symbols with designated meanings employed in a fashion using nature to assist by placing the panel marks in sections of the wall that texturally mimicked the undulating path of the canyon 0n a miniature scale. The map was drawn as a human-eyed view but with a bird's-eye drawing of the blinds and canyon wall locations much as you see on a topographic map today. From the canyon rim such would have been obvious years ago, but from below I was as ignorant as a deer wandering through.

Fig. 4 Source Author The start of the canyon before it gets very narrow and into taller cliff faces

Pastoralists' paintings of WG 35, Gilf el-Kebir: anchoring a moving herd in space and time

Emmanuelle Honoré
Newton International Fellow
McDonald Institute for Archaeological Research,
Cambridge, UK.

The WG 35 rock art site was first mentioned in 2003by András Zboray, who had discovered it in 2002. It was first named as WS 47 (2003: 123), renamed as WG 45, the fifth site of the fourth zone of the western Gilf, and then as WG 35 (2005). Behind this technical name is hidden a small but very moving site of pastoralists' paintings from the Middle Holocene. It is located on the north-western flanks of the great massif of the Gilf el-Kebir, literally the 'great cliff' in Arabic. The Gilf el-Kebir is actually a plateau mostly constituted of Tertiary sandstones on a surface of c. 7,500 sq. km (Embabi, 2004: 353), with inclusions of metamorphic and magmatic rocks. Due to erosion processes, its flanks are deeply cut by wadis of uneven width and length.

The Wadi Sūra, meaning the 'valley of images' in Arabic, is the largest wadi of the north-western part of the Gilf el-Kebir (Abu Ras plateau). It appears to be more like a large rocky amphitheatre, itself cut by small canyon-like wadis (figure 1). As a matter of fact, the two major rock art sites of the Wadi Sūra, Wadi Sūra I (WG 51, 52, 53, 54) and Wadi Sūra II (WG 21), are located at both ends and more than 10 km distant from each other. WG 35 is a shelter naturally cut at the base of a sharp sandstone wall, on the eastern flanks of a canyon-like wadi of the Wadi Sūra.

The paintings are displayed on the very low ceiling, 60–80 cm from the rocky ground (figure 2). They are remarkably well-preserved with bright colours: dark red, yellow and white. More than 158 individual figures are painted on a 5 sq. m panel: around 80 humans, 71 bovines, 4 caprines, 3 giraffes, some possible calves or dogs and other figures difficult to identify. One of the most important features of this rock art site is the high number of superimpositions (figure 3). Zboray initially reported that eight layers of paintings could be seen (2003: 124–5). Actually, up to 20 layers or painting units can be identified and the whole stratigraphic arrangement was set up by the study of 22 inter-unit stratigraphic overlaps, being themselves inferred from a higher number of superimpositions (Honoré, 2008; 2012).

When? A typical manifestation from the pastoral phase

The layers can be consistently grouped into three phases. The second and the third phases show depictions of herds of bovines, some of them escorted by humans. The bovines play an important role, as

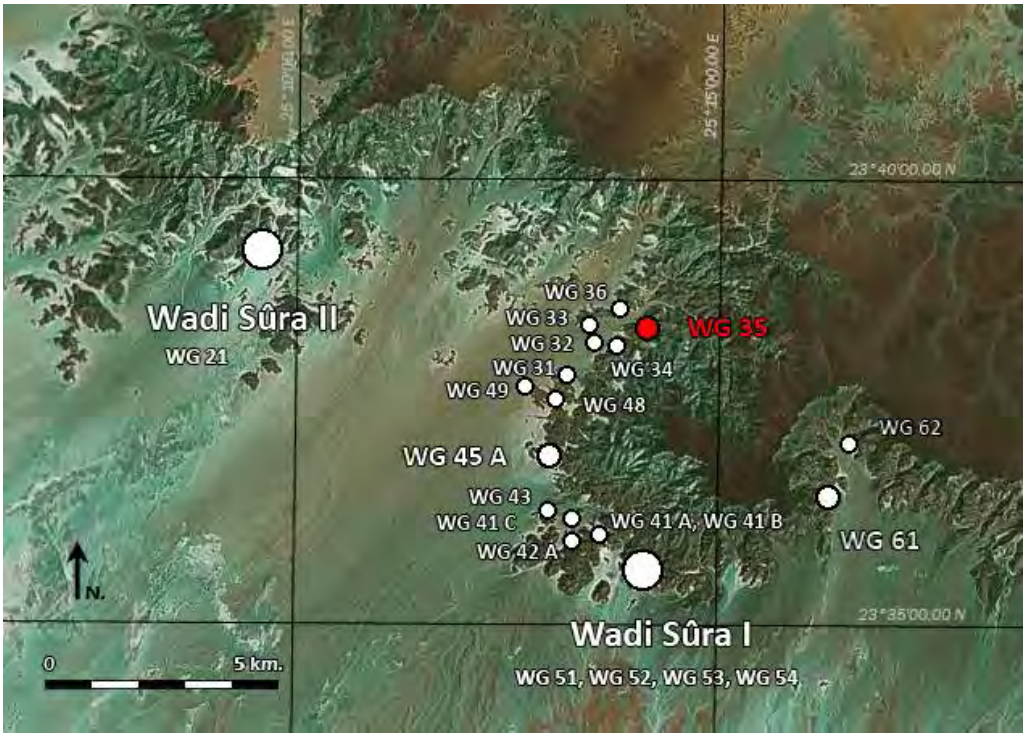


Fig. 1. Location of WG 35 on a satellite view of the Wadi Sūra in the north-western Gilf el-Kebir, Libyan Desert. Copyright Emmanuelle Honoré on a Google Earth 2008 map.

Fig. 2. General picture of the ceiling of WG 35, taken from the entrance of the shelter. Copyright Emmanuelle Honoré.

there are more of them than of humans. Collars around the necks of the animals are particularly clear markers of domestication. The humans are standing, each grouped in twos, with dress and physical differences which seem to gender them as a rather stereotyped man and woman couple.

Among other elements, the high level of anatomic accuracy of the domesticates and the repetition of this motif lends credence to the hypothesis that WG 35 paintings were made by pastoralists themselves, or at least by people who seen them from very close. Domesticates are confidently evidenced by archaeozoological data in the Libyan Desert during the sixth millennium BC (Gautier 2001: 610; Wendorf, Schild, 1984: 417–18; Barich, Hassan, 2000: 19; Berke, 2001: 242–3; MacDonald, 1998: 133; Riemer, 2003). In the Gilf el-Kebir, the early datings of the arrival of domesticated fauna remain to be determined, as archaeozoological data in dated contexts are less numerous than surface finds. For some of the osteological remains, there is still a debate on their wild or domesticated nature, mainly because of their very fragmented state.

According to regional contexts, it may be considered that the WG 35 paintings relate to the main pastoral phase, which took place in the Gilf el-Kebir between the sixth millennium BC and the end of the Holocene optimum. Around 3500 BC, palaeo-environmental conditions became drier (Kröpelin, 1987) and the archaeological record testifies to the end of human settlements in the Gilf el-Kebir (Kuper, Kröpelin, 2006). However, some pastoralists kept grazing their herds in the northern Gilf el-Kebir occasionally until the beginning of the 20th century AD (Almásy, 1936: 62–6).

Painting units 1, 2, 8 and 13 show very distinctive spotted coats for the bovines, perfectly fitting into a style scattered on Gilf el-Kebir and especially northern Jebel el-'Uweināt sites of the mid-Holocene period. The giraffes of the first phase of paintings are also consistent with this interval, if we assume that they have been painted there because they were seen in the region. Consequently, due to stylistic and contextual evidences, it has been assessed (Honoré, 2012: 28–31) that the paintings of WG 35 shelter are most probably to be placed in an interval corresponding to Gilf C (4300–3500 BC), and even to Gilf D (3300–2700 BC) for the latest layers (for an overview of the chronological sequence of the Gilf el-Kebir, see Gehlen *et al.*, 2002).

By whom? Herd keepers' life and traditions

The paintings mainly portray a pastoralist way of

life revolving around the herd. Some choices of representation tell more about the specificities of this pastoralism. Caprines are the first domesticates depicted (painting unit 9, phase I) and then bovine herds – maybe with calves or dogs – are exclusively pictured. As previously studied (Honoré, 2012: 36), at least two-thirds of the bovine herd are represented with stretched hindlegs and an oversized udder (figure 3), which seems to underline the importance of milk output. It is particularly interesting to put it in the perspective of archaeozoological data, as faunal remains found in Neolithic fireplaces in the Gilf el-Kebir are quite exclusively from wild animals. The rock art of WG 35 suggests that early pastoralism could thus have been rather oriented towards milk production.

WG 35 paintings show that the pastoral group was probably hunter too. All herd keeper couples carry a bow and a quiver (figures 3, 4), which may be useful for hunting or preventing attacks. On painting unit 20, three standing human figures are bending their bows upwards in the same direction.

The phases correspond to three progressive steps in terms of painting techniques. The first phase displays plain figures in red ochre. The second phase displays semi-plain figures in red ochre and white, and some occasional use of the two colours on a same figure to draw details. And the third phase displays decorated and multicolour figures using red ochre, white and yellow. The size of the depictions increases gradually. This progression appears in a logical sequence which could be well explained by the hypothesis of a same group or painter returning periodically to the same site.

Why? A way to fix snapshots of the herd in the context of seasonal movements

Another fact points in the same direction. The rock art of WG 35 is hidden from outside and one has to crawl on the rocky ground and then turn over on one's back to see the paintings on the ceiling. The different units have been painted one over the other without previous erasing, whereas surfaces suitable for rock art all remain untouched in the same canyon-like wadi. This testifies a deliberate will to put the paintings over those previously made here.

According to the position of the paintings, they were certainly not made just to embellish a surface. We observed during hot hours that it is a perfect place for shade when the sun is at its peak. Because of the low ceiling, it can be used for having a rest. Thus, it could be paintings made by a herd guardian or a pastoralist group in the context of cyclical mobility.

Fig. 3. Detailed view of paintings showing the three painting phases with many superimpositions. Copyright Serge Sibert.

Palaeo-ecological evidence provides the information that seasonality was highly marked in the Gilf el-Kebir and that during dry season the water levels of the lakes significantly decreased (Kröpelin, 1987; 1989). The human figures from phase II show striking similarities with the ones on sites HP 34 in the Hassanein Plateau and KTS 38 and KTS 92/B in the Karkur et-Talh (western and northern Jebel el-'Uweināt), whereas the bovines with fancy spotted coats (painting units 1, 2, 8 and 13) can be paralleled

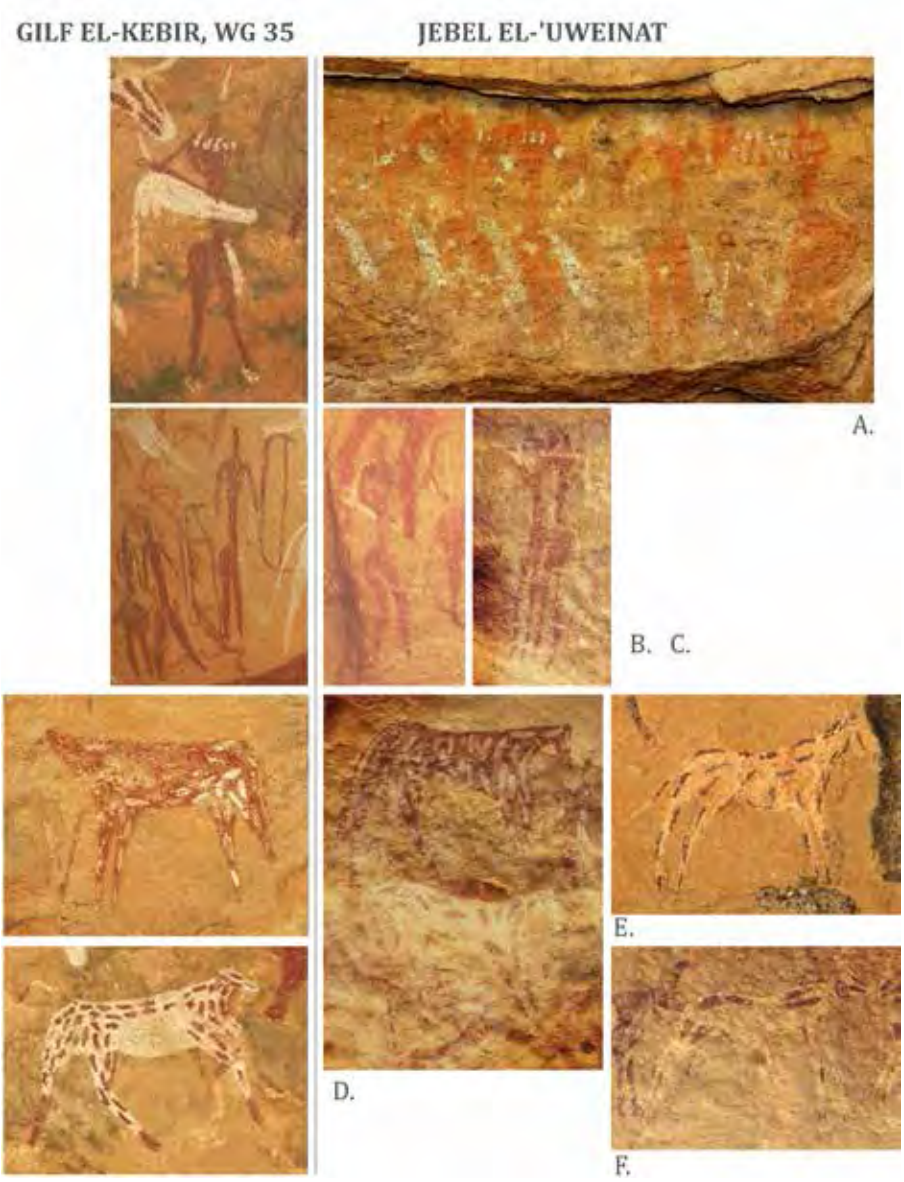


Fig. 4. Parallels of WG 35 paintings with paintings from the Jebel el-'Uweināt. Copyright Emmanuelle Honoré.

with the ones from the same site KT 92/B in the Karkur et-Talh, AD 2 (Ain Doua), and HP 21/B in the Hassanein Plateau (figure 4). Do these parallels reveal the itineraries of pastoralist groups? The Jebel el-'Uweināt is known to host permanent resources of water, which could have been quite useful for filling cattle watering needs during the dry season.

To whom? A landmark for a semi-nomadic group

Due to the fact that they are pretty hard to find, it is likely that these paintings were made for the group – or even the painter – himself, as a visual and symbolic landmark to anchor a moving herd in space and time. It has maybe been a milestone or a reminder of the state of the herd at a certain moment. During phase II (painting units 3 and 7), some bovines which were part of the herd have no visible head. Actually, it is the most intriguing feature of WG 35 paintings. Have they been pictured as such deliberately? The strokes at the necks do end really neatly.

They stand as normal cattle and have no other sign which would permit distinguishing them from the others. Could they be dead elements of the livestock that the painter wanted still to include as a part of his herd? Could they refer to some traditions of beheaded bovine burials well attested elsewhere in the Neolithic Sahara (Ferhat *et al.*, 1996; Aumassip, 2006: 422; Tauveron *et al.* 2009: 185)? During the same period, Neolithic sites of the Sudan (R12, el-Ghaba, Kadruka, Kadada) provide human graves with bovine bucrania

(Salvatori and Usai 2008: 76). On WG 35 paintings, beheaded bovines are more often males than females (Honoré, 2012: fig. 9). It seems to coincide with the fact that in the symbolic universe of early pastoralists powerful token contents are rather linked to male elements (Hassan, 2002: 17; Di Lernia, 2006: 61).

In conclusion, it can be said that these paintings are not only a moving testimony from a pastoralist group of the mid-Holocene period. They help us better understand their herd management strategies, their way of life and their symbolic concepts. If these paintings have been made as snapshots to anchor a herd in space and time, one may consider that they reached their aim, and have gone far beyond.

Bibliography

Almásy, L. de

1936 *Récentes Explorations dans le Désert Libyque*, Cairo (Publications de la Société Royale de Géographie d'Egypte).

Aumassip, G.

2006 Interventions humaines sur les plantes et les animaux dans le Sahara Central, *Comptes-rendus Palevol*, 5, pp. 421-427.

Barich, B.; Hassan, F.

2000 A stratified sequence from Wadi el-Obeiyd, Farafra: new data on subsistence and chronology of the Egyptian Western Desert, in Krzyżaniak, L., Kroeper, K., Kobusiewicz, M. (eds.), *Recent Research Into the Stone Age of Northeastern Africa*, Studies in African Archaeology, Vol. 7, Poznan Archaeological Museum, Poznań, pp. 11-20.

Berke, H.

2001 Gunstraume und Grenzbereiche. Archaozoologische Beobachtungen in der Libyschen Wüste, Sudan und Ägypten, in: Gehlen, B., Heinen, M., Tillmann, A. (eds.), *Zeiträume. Gedenkschrift für Wolfgang Taute*, Archaologische Berichte, 14, Bonn (Deutsch Gesellschaft fur Ur- und Fruhgeschichte), pp. 237-256.

Di Lernia, S.

2006 Building monuments, creating identity: Cattle cult as a social response to rapid environmental changes in the Holocene Sahara, *Quaternary International*, 151, pp. 50-62.

Embabi, N.S.

2004 *The geomorphology of Egypt: Landforms and Evolution*, The Nile Valley and the Western Desert, Vol. 1, Cairo (The Egyptian Geographical Society).

Ferhat, N.; Striedter, K.H.; Tauveron, M.

1996 Un cimetière de boeufs dans le Sahara central: la nécropole de Mankhor, in Aumassip, G. (ed.), *La Préhistoire de l'Afrique de l'Ouest : nouvelles données sur la période récente*, Saint-Maur (Sépia), pp. 102-108.

Gautier, A.

2001 The Early to Late Neolithic Archeofaunas from Nabta and Bir Kiseiba, in Wendorf, F., Schild, R. (eds.), *Holocene Settlement of the Egyptian Sahara vol. 1, The Archaeology of Nabta Playa*, New York (Kluwer Academic / Plenum Publishers), pp. 609-635.

Gehlen, B.; Kindermann, K.; Linstädter, J.; Riemer, H.

2002 The Holocene Occupation of the Eastern Sahara: Regional Chronologies and Supra-regional Developments in four Areas of the Absolute Desert, in JENNERSTRASSE 8 (ed.), *Tides of the Desert - Gezeiten der Wüste. Contributions to the Archaeology and Environmental History of Africa in Honour of Rudolph Kuper*, Köln (Heinrich Barth Institute), pp. 85-116.

Hassan, F.

2002 Palaeoclimate, Food and Culture Change in Africa, in Fekri Hassan (ed.), *Droughts, Food and Culture: Ecological Change and Food Security in Africa's Later Prehistory*, New York (Kluwer Academic), pp. 11-26.

Honoré, E.

2008 The shelter of headless bovines: a study of WG 35 (Gilf el-Kebir, Egypt), in Kousoulis, P. (ed.), *Abstracts of Papers. Tenth International Congress of Egyptologists, Rhodos, May 2008*, Rhodes (University of the Aegean), pp. 118-119.

Honoré, E.

2012 Peintures rupestres et cultures pastorales de l'Holocène humide dans le Sahara Égyptien, in Leduc, C. Salavert, A., Nicolas, T., Al Halabi, T. (eds), *Les images: regards sur les sociétés. Actes de la 3e Journée Doctorale d'Archéologie 2008*, Paris (Presses de la Sorbonne), pp. 17-53.

Kröpelin, S.

1987 Palaeoclimatic Evidence from Early to Mid-Holocene Playas in the Gilf Kebir. *Palaeoecology of Africa*, 18, pp. 189-208.

Kröpelin, S.

1989 Untersuchungen zum Sedimentationsmilieu von Playas im Gilf Kebir (Südwest-Agypten), in Kuper, R. (ed.), *Forschungen zur Umweltgeschichte der Ostsahara*, Köln (Heinrich Barth Institute), pp. 183-306.

Kuper, R.; Kröpelin, S.
2006 Climate-Controlled Holocene Occupation in the Sahara: Motor of Africa's Evolution, *Science*, 313, pp. 803-807.

MacDonald, M.
1998 Early African Pastoralism: View from Dakhleh Oasis (South Central Egypt), *Journal of Anthropological Archaeology*, 17, pp. 124-142.

Riemer, H.
2003 The 'Re-conquest' of the Great Sand Sea, in Zahi Hawass (ed.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists*, Cairo (The American University in Cairo Press), pp. 408-415.

Salvatori, S., Usai, D.
2008 *A Neolithic Cemetery in the Northern Dongola Reach: Excavations at Site R12*, Sudan Archaeological Research Society, Publication Number 16, BAR International Series 1814, Oxford (Archaeopress).

Tauveron, M.; Striedter, K.H.; Ferhat, N.
2009 Neolithic Domestication and Pastoralism in Central Sahara: The Cattle Necropolis of Mankhor (Tadrart Algerienne), in Baumhauer, R., Runge, J. (eds.), *Holocene Palaeoenvironmental History of the Central Sahara*, Palaeoecology of Africa 29, London (Taylor and Francis Group), pp. 179-186.

Wendorf, F.; Schild, R.
1984 Conclusions, in Close, A. (ed.), *Cattle-keepers of the Eastern Sahara. The Neolithic of Bir Kiseiba*, Department of Anthropology, Southern Methodist University, Dallas, pp. 404-428.

Zboray, A.
2003 New rock art findings at Jebel Uweinat and the Gilf Kebir, *Sahara*, 14, pp. 111-127.
2005 Rock Art of the Libyan Desert, DVD 1st Edition vols, Fliegel Jezerniczky Expeditions, Budapest.

What kind of society produced the rock art of my region (Hazaribagh, Jharkhand, East India)? Why was it produced, and to whom was the rock art addressed?

Bulu Imam
Indipendent Rock Art Research, India.

Introduction

Before I begin to address the questions I will make some observations on the nature of the non-industrial mindset that created the rock art. Edmund Husserl's theory of phenomenological experience made us aware of the reality of subjective phenomena, even as René Descartes had separated the thinking mind or subject from the material world. We cannot approach an understanding of rock paintings with a Cartesian mentality, in which the natural world was a structure understood only through scientific mathematical analysis and considered purged of material reality through subjective experience. Primitive mindsets are devoid of the Cartesian approach of analysis of the material structure of matter developed by modern science in which material reality is reduced to its chemical and particulate nature etc, as created by the objective sciences.

The primitive artist was therefore different in mentality from the modern scientific mind which has created analyses of the meanings of prehistoric rock paintings. This has to be kept in mind before approaching any

Fig. 1. Sidpa: bull and circles.

Fig. 2. Khandar: strings of circles.

questions regarding the meanings or *raison d'être* of prehistoric rock paintings. Modern scientific objectivity has eclipsed the living world and overlooks living nature. These can only be re-apprehended through non-scientific, subjective approaches, and rock art cannot be quantitatively assessed, as many researchers have done.

Rock paintings (or for that matter any art) by primitive societies is the expression of a mind rooted in subjective experience and subjective relationship with the objects created. The old Aristotelian thinking is outdated because it fails to give personality to natural or so-called inanimate things. Primitive societies even today understand the life worlds of animals and even plants and inert matter, the living-ness of stone, earth, water, air… things which they can relate to and which science considers inanimate.

The vision of prehistoric rock painters requires an altered state of perception from the modern Cartesian one, and this vision is still alive in existing primitive societies. It is modern – and particularly European – society that has lost touch with the living world and the result of this vision has been that in a past few centuries animal populations have been demolished, forests over-cut and overgrazed, rich soils depleted, waters rendered undrinkable, and enormous areas around the world mined for minerals and ores, causing ecological depredations on a cataclysmic scale and even leading to climate change.

Background

My research is specifically based on the Meso-Chalcolithic rock paintings in the upper valley of the river Damodar in Jharkhand in East India, approximately 800 km east of the famed Bhimbetka rock paintings in Madhya Pradesh. It centres on a living indigenous mural painting tradition by village women who paint their mud houses with similar motifs, most of them not being aware of the rock art until I brought it to light over two decades back (i.e. in 1991).These women painters belong to sedentary Adivasi agricultural societies whose religion is basically non-Hindu, being animist, and they are forest-reliant societies who practise a subsistence agriculture of rice, wheat, sugarcane, legumes and pulses. Since 1991 I have with my immediate family and team of supporters brought to light 14 painted rock shelters in our region dated by experts to the Meso-Chalcolithic period but with the vast remains of an earlier Palaeolithic occupation in the region of the painted shelters, which evidences the animal art of the hunters prior to sedentary agriculture. There is

Fig. 3. Bhelwara floor Aripan with house.

Fig. 4. Figure of spotted bulls.

a strong evidence of a Mesolithic culture, and many Neolithic stone tools as well as microliths have been found in the painted caves. The entire study region covers as much as 800 sq. km. The rock paintings have been studied by eminent individual rock art experts, such as Erwin Neumayer (*Cave Art of India*, IGNCA, 2010); S. B. Ota, principal archaeologist and director of the Archaeological Survey of India; the Bihar Archaeology Department; Deccan College Pune, Prehistory Department; Bansi Lal Malla, senior rock art expert, IGNCA, and his team from IGNCA, New Delhi, who in 2007 conducted a research team to the Hazaribagh rock art site, for the international rock art list. I have documented the 14 sites including photographs and line drawings of all the painted surfaces in my manuscript *Rock Art of Hazaribagh* and my book *Antiquarian Remains of Jharkhand,* documenting 1,000 archaeological sites in the state.
Much of what is already written and known by scholars about central Indian rock art will apply to the rock art of the upper Damodar valley, the sites being Isco, Nautangwa Pahar (Salgah), Nautangwa Pahar II, Raham, Gonda, Sidpa I, Sidpa II, Satpahar I, Satpahar II, Satpahar III, Satpahar IV, Thethangi, Saraiya and Khandar.

Who and when? Who were the people who produced the art at these sites and when did they produce it?

This art was painted by the descendants of earlier Mesolithic hunters who occupied the region in the hills, living in caves through a hunter-gatherer subsistence economy and whose direct descendants are found in the nomadic society of Birhor hunter-gatherers, a small and little studied tribe called the Birhor who live in leaf houses much like the San of Kalahari and Hadzabe of Tanzania, a Mundaric speaking group with a peculiar click language. They call themselves Bir-Hor which means in Mundaric forest man. The Birhor claim that their ancestors painted the rock art in the hill caves and although they do not paint their leaf houses their sand drawings done outside are remarkably like the prehistoric rock paintings in the painted shelters (figure 9). Another tribe living in the same forests, an Oraon sub-tribe known as the Tana Bhagats, annually propitiate the tribe with a big puja and offerings of milk and sweets when they go into ecstatic trances, especially the womenfolk (figure 10). Importantly the Tanas do not paint their houses either, but claim the rock painters were their ancestors. It is significant that the Tanas were converted to Hinduism in the 16th century after the visit of the Hindu saint Chaitanya, but do not profess to be Hindus and retain animist religious and cultural practices. They also perform pujas to the springs along with the rock art sites, their villages being in the same locality as several rock art sites in the Satpahar ranges. The dating by experts holds that the hilly caves with animal paintings belong to the Mesolithic (6000–3000 BC) and there is in the lower caves a Chalcolithic presence (3000–2000 BC), but in some of the hill caves such as Nautangwa, Thethangi and Isco, wild cattle and deer are found

Fig. 5. Isco: wild cattle and spotted bull on wheel.

along with motifs belonging to a sedentary agricultural society.. One shelter called Saraiya is in an inaccessible mountaintop eyrie and is distinct from the other sites in its painted images. These are all magical and shamanistic and unrelated to any of the other sites in terms of images, and have been interpreted as being pre-Mesolithic. Then there is the art of the cattle-keeping agricultural societies with motifs clearly related to the present cattle festivals, especially the harvest festival of Sohrai, which manifests a strikingly similar use of motifs such as spotted cattle and the strings of circles made on the cattle-shed floors to welcome the cattle, called Aripan, which are still painted in every house during the great puja performed after Divali, known as the Sohrai, when the cattle are spotted, and next day the Govardhan puja or the Khuta Bandhan, when bulls staked in the field are ritually propitiated. In the Isco rock panel we actually find the figure of a spotted bull on wheels, and the strings of circles representing the hooves of cattle in the welcome Aripans are found in Isco, Sidpa, Khandar and other rock art (figures 1, 2, 3, 4, 5, 6). We can see the spotting of the cattle in

Fig. 6. Isco spotted bull on wheel.

Fig. 7. Nautangwa Pahar. Virgin moon of Basant Panchmi with wild, Deer and proto-temple forms.

hundreds of villages, along with the strings of circles representing the cattle hooves being painted on the mud floors by the village women even today. The significant phase of the waxing moon in its growing quarter is symbolized at each village festival of spring, such as Saraswati puja and the great spring festival Basant Panchmi. This moon is one of the major motifs of the rock paintings in Nautangwa, where the forms of proto-temples in plan form are found on the same sandstone shelter wall as Mesolithic paintings of wild deer (figure 7). The plan view of the house is familiar to not only children who play building houses during Divali but also to the women village painters who draw similar forms in the comb paintings on the mud walls of their houses to welcome the bridegroom in the marriage art of Khovar. The most striking thing about our rock paintings is that they so forcefully evoke the memory of the Sohrai and Khovar village murals that they could have been painted yesterday.

Why was the rock art produced and what did it intend to convey; what is its content and meaning?
I have lived all my life in the region of the rock art I have brought to light, researched, and written about extensively. I have had a close relationship with the local village societies and forest dwellers whose ancestors in all likelihood were descendants of the rock painters; and what I have been able to glean from my continuing dialogue with them is that the images painted on the rock surfaces in purple iron ores and minerals like white kaolin and (rarely) manganese black are sacred

Fig. 8. Khovar painting of bridal house.

markings made by the ancestors to establish their presence. The drawings of wild animals, sometimes birds, rarely a butterfly, sun, moon, stars and humans are not merely writing as moderns understand it, but rather messages through recognizable forms made by people who wanted to leave a mark of having been there. There is no doubt that most geometrical forms are plan views of certain three-dimensional forms such as houses and landscape. Others are enigmatic icons signifying deities, elders and extraordinary powers. On the other hand, humans and animals are sometimes found alongside geometrical forms which might be a form of writing and these could portray a relationship between the two (figure 11).

To whom was the message addressed and what result was expected ?

My experience with the rock art of my region is to be seen in the context of my study of the mural wall painting tradition in the villages of this area which has continued in a similar form as the rock paintings, although for most of the women painters the rock art was an unknown quantity before I brought it to light in 1991. Nevertheless, the women painters are the best key to understanding the rock art because they carry on one of the longest continuing artistic traditions in the world, with their regular display of comb-cut black-and-white sgraffito murals in hundreds of villages during the marriage season before the monsoon rains (March–June), which are marriage room murals called Khovar, which means bridegroom's room (kho = cave; var = bridegroom) (figure 8) and after the monsoons have completely washed away the painted walls four months later (October–November), the painted and comb-cut mural art for the rice harvest festival of Sohrai (soh = to drive cattle; rai = with a stick) is made. I have studied thousands of motifs in both the rock paintings and the village paintings and though I have found certain similarities of forms (obviously), there is no direct evidence of writing or even stories associated with the paintings either in the painted shelters or the painted villages. The village women who paint the Khovar and Sohrai murals are married women – grandmothers, mothers, aunts – and they teach the art to the young girls who will carry these traditions with them to another village when they get married. In this way the art moves around and refertilizes itself for hundreds of square kilometres around and interesting new forms appear. The presiding deity is the Earth Mother (Parvati) and the Forest God (Shiva-Mahadeva).

Their vivid and artistic portrayal of plants, birds, insects, flowers and animals is exotic and electrifying, carrying the wild grandeur of the best rock paintings. It is of great interest that they sometimes introduce into their large mud wall murals entirely painted with earth colours some art that is explicitly similar to the forms of the rock paintings. The coloured Sohrai paintings are generally made on a base coat of natural yellow earth or kaolin, while the black-and-white marriage Khovar comb-cut murals are made by first spreading a base coat of manganese black on the wall and before it has completely dried covering it with

Fig. 9. Birhors in front of leaf Kumba.

Fig. 10. Tana Bhagat: puja.

a coating of white Kaolin which is expertly cut with combs or sometimes fingers, creating a dark black form through the sgraffito technique.
It is important to note that throughout India painted rock shelters have since time immemorial been called Kohbar, which is the vernacular name of the room in which the bridal couple spend their first night and in which the marriage is consummated. This is important to note since it gives an insight into the need to decorate these caves in prehistory. The bridal rooms of today and the ancient prehistoric painted Kohbars are the same. This is the message I think the ancestors were trying to convey to future generations.

Fig. 11. Thethangi: human form besides geometrical figure.

The reflection of social structure through rock art: the case of Zatriq, Kosovo

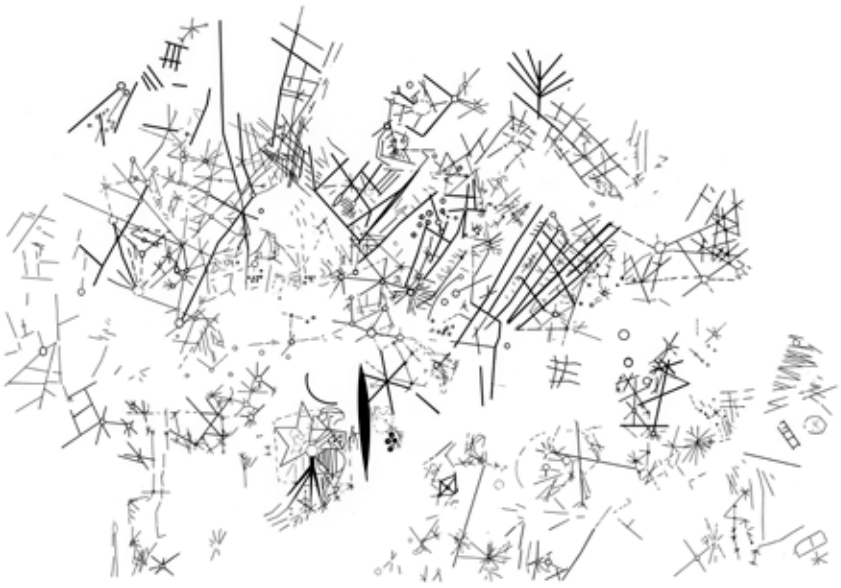
Shemsi Krasniqi
PhD, Department of Sociology, Faculty of Philosophy, University of Prishtina, Republic of Kosovo .

Description of the locality

In the village of Zatriq (southwest of Kosovo), in a place called Sharenicë, there is a big rock with several hundred engraved symbols dating from prehistory. This site is in the open air, and the largest parts of engravings are clearly visible; another part is covered by moss. The symbols are in abstract and geometrical style, and there are various types of motifs, but asterisks, dots (cupules), lines (networks), squares and trees (arbolets) seem to dominate. Most of the symbols are associated, representing different kinds of psychograms, and many others are superimposed, which indicates a long tradition of living in that place. In general, the symbols are not uniformly distributed, but are accumulated in certain areas of the rock's surface. The study of rock art in Kosovo has started recently, but until now Zatriq remains the most important site. The carved symbols help us to understand not only the culture and the way of thinking in prehistory, but also the social structure, the interconnections and communications within the community at that time.

When?

All three types of prehistoric societies, hunters, gatherers and agriculturists, have produced this rock art. These societies were dependent on nature and had strong links with it, not only physical and practical, but also symbolic and spiritual. To survive, prehistoric societies were forced to adapt to cyclical movements of nature and to recognize changes associated with the seasons, weather conditions, ecosystems and natural resources, on which depend the economy and human existence. Connecting with nature was necessary for human existence, so this is expressed through rituals; and rock art, among other things, in my opinion, is a ritual.
In Zatriq, I think that the type of society that created the rock art was diverse, meaning that it had elements of hunters and agriculturalists, with continuity of



Figs. 1a,b. Rock art in Zatriq, Kosovo - In the upper part of the symbol of fertility are interrelated asterisks representing the structure of the comunity.

life in that place, or alternatively, it went through a transition from one type of society to another. Based on the figures related to the representation of animals (deer, fish), human hands, tools (arrows, ploughs, fences, houses, etc.), it might be possible that this society could be characterized as a complex economy.
The social structure of a community is reflected through rock art. Not only the type of symbols, but also their style and dimensions, make us think about social differences, interconnections and mutual interdependence between different units or groups that have been part of that society. The way in which the shelter or house appears seems to reflect not only the architectural style, but also a differing lifestyle based on various social backgrounds. In one case it is shown as a tent, another as a vertical cabin, and in the other case as a horizontal house with many windows.
Some abstract symbols, such as cupules and asterisks, have larger dimensions, and some others are smaller. However, despite the dimensions and expressive power of symbols, one can clearly see a network connection between them. This way of presentation reflects the structure of social ties in the community, where a group or a unit is connected directly to another group

Figs. 2a,b. Rock art in Zatriq, Kosovo. Asterisk in association with tree.

or a unit, and indirectly with a third. This schematic rock art in Zatriq is shown like this: a straight line departs from the centre of an asterisk, and then it passes through the centre of another asterisk and goes to a third. The next line starts and goes in the other direction to the second, which is related to the third by another line. Almost all the asterisks in Zatriq are connected to each other, or they are associated with another symbol.

Being connected to the other and being involved and interactive appears to have been a way of thinking as well as of social action in prehistory. This shows that in Zatriq there was a social structure that created rules and defined relations, roles and social functions. I think this may impugn the theories of classical sociologists and anthropologists on segmental societies. Looking at the structure of prehistoric symbols, it seems that the structure of those societies was more complex than just gender or generational divisions. Rock art in Zatriq shows a social structure which was inclusive and without segregation, because the community units (asterisks), despite the strength or size, shared the common space and appear to be joined and close to each other. It is possible that there was not a big difference in social and economic differences, but there was a difference in spiritual terms. It might be possible that this society had no significant differences in lifestyle or economic power, but there were differences in ways of thinking and spiritual power. The social differences or social structures of prehistoric societies may have been created based on this. The spiritual differences, such as one's ability to impose a will on another, predict their fate, describe tasks, assign rules and require certain rituals or sacrifices may be the genesis of subsequent social differences, which have followed future societies up to the present.

Just as literate societies have a social structure, pre-literate societies must have some kind of pre-social structure. So, some elements of stratification must have existed in prehistoric societies and these elements can be understood through the rock art. More precisely, to produce rock art requires a special kind of knowledge; requires competence or special permission, meaning that it created it some kind of privilege for some

people, in relation to others.

Why?

Certainly, decoding rock art is a very complex task. It requires knowledge and multidisciplinary approach; it requires patience and passion; it also demands flexibility, creativity, rationality, fantasy, imagination, instinct and intuition. To understand rock art, we should start from ourselves and know how to better read our beings, our daily life in the family and in the community; we have to know how to read culture and social life, because in all these levels and areas of life, there are cultural elements created in ancient times that have survived, although transformed and camouflaged in various ways. In my opinion, re-reading our lives helps us to better understand the messages of rock art. The rediscovery of the pillars of existence, the principles of social life, and the role of cultural norms and spiritual values helps us understand the messages of rock art.

Producing symbols is something inherent to human beings, while the geometric and abstract styles are imposed by the conditions of life, by the conditions offered by the material, but also from human nature itself, which maps our thoughts and actions.

To whom?

The message of rock art is a universal message. Even the use of the rock as a medium of communication, in my opinion, was supposed to perpetuate the symbols and messages that carry them. They have also led us, which is shown by the fact that we are studying them and searching for them. Not just us. We are not alone in this world, says the French ethno-psychoanalyst Toby Nathan. It seems that rock art shows us that we are not alone. People in prehistory have communicated with imaginary beings as well as real ones. According to how images are presented in rock art, one can notice that imaginary beings have had an impact on real beings. To avoid the negative impact of imaginary beings, rock art represents real beings, particularly humans, in strange shapes: part of the body, with organic and anatomical deviations, metamorphosed with masks or camouflaged, also in oppositional, symmetrical and ambivalent ways.

Summary

The fragmentary answer is neither fair nor complete. As rock art has been created for a long time, it has also created a wide audience. So when we talk about who created the rock art, we cannot talk only about a single type of society (hunters, agriculturalists); nor can we specify only a single motif (social or spiritual communication), or just one special social profile.

Just as forms of expression, places and techniques of expression are very complex, as is the cosmology of symbols and their associations, so is its ontology complex, both in terms of the time when it was created, and in terms of groups that have created it, and also in terms of imaginary beings to whom it was dedicated. Imagination is part of human life, and rock art, in addition to its artistic, social, philosophical character, also has an imaginary character.

Rock art is integrative. As it has integrated real and imaginary beings, it has also integrated past and present generations of humanity. Rock art is the symbiosis of individuals and the collective, particulars and global, the unique and universals, as well as being a symbiosis of humans and nature.

Rock Art as Mortuary Practice in the Late Mesolithic of Western Norway

Trond Lødøen
Researcher, Section for Cultural Heritage Management, University Museum of Bergen, Bergen, Norway.

This paper will try to provide answers to a number of basic but challenging questions about rock art that were asked by the editor of this volume. The questions are meant to provide answers on when rock art was produced, why it was created and to whom it was directed, and will be more precisely specified below. In order to provide appropriate answers I have chosen the Vingen site in western Norway as my point of departure, where more than 2,200 images are distributed around a small fjord on several ledges running from east to west, on numerous boulders and smaller stones, in a very dramatic and barren landscape (figure 1). The iconography is dominated by images of red deer, animal-headed staffs and anthropomorphic images, all of which are arranged into different groups of motifs (Lødøen and Mandt 2010).

When was the rock art produced, and by whom?

This is probably the easiest question to answer, although there have been several approaches to this topic over the years. The rock art of the site has normally been understood as belonging to the hunters' art or the Northern Tradition, but has nevertheless been associated with a whole range of periods, such as different subdivisions of the Neolithic, the Mesolithic or the Bronze Age (Bøe, 1932; Hallström, 1938; Bakka, 1973; 1979; Lødøen, 2003; 2013). These chronological categorizations have come about through comparisons with other rock art sites and geological studies of past shoreline positions affecting the site in the post-glacial period, based also on the assumption that the rock art was repeatedly produced immediately above the shoreline on clean surfaces that were gradually raised by isostatic activity. I will claim that these approaches have resulted in fairly vague dating frameworks, as studies of similarities in the iconography prevent us from defining more absolute chronologies, and because we no longer know about the relationship that rock art may have had with past shoreline levels (Lødøen, 2013).

In recent years, systematic archaeological excavations have been carried out in the area and in the vicinity of several panels with rock art (figure 2). These investigations have produced a new background for achieving a better chronology of the rock art, through the extensive radiocarbon dating of cultural layers and the documentation and analysis of deposited artefacts (Lødøen, 2013). In general, both these artefacts and the cultural layers are as relative to the rock art as the ancient shoreline positions. However, in combination with independent scientific methods such as palynology and loss on ignition, new possibilities have been provided that allow us to isolate periods of human effects on the environment, which can then be correlated with both the deposition of cultural layers and the production of images, consequently helping us to delimit and define a period when the rock art was produced. Human activity at the site seems to be most consistent between 4900 and 4200 cal BC,

Fig. 1. The Vingen site and its location in western Norway

Fig. 2. One of the many excavations in the vicinity of panels and boulders with rock art, providing new information about when the rock art was produced

although there are some traces of activity from as early as 5400 cal BC (Lødøen, 2013). This corresponds strongly with analyses of vegetational development, which only documents modest human impact prior to 4900 cal BC, followed by much more substantial clearance and deforestation until 4200 cal BC, when the deciduous forest seems to have been much denser, as if the vegetation were once again sealing off activity at the site. This time span also corresponds with loss on ignition investigations, which conclude that there was less activity prior to 4900 cal BC and after 4200 cal BC (Hjelle, Lødøen 2010; Lødøen, 2013).

In addition to this evidence, archaeological excavations have documented a pecking tool in the vicinity of one of the rock art panels whose pointed end corresponds to the pecking marks that make up the lines in the images at the site. The tool was recovered from a cultural layer dated to 4580–4360 cal BC (Lødøen, 2013). The geochemistry of the pecking tool has also been analysed, and it is clear that its provenance corresponds with a diabase quarry to the south of Vingen which was used intensively during the Late Mesolithic period, and which therefore supports the cultural context for both the tool and the rock art (Lødøen, 2003; 2013). Excavations in close proximity to the rock art panels at the Ausevik site, a short distance to the south of Vingen and which has a similar type of rock art, have recently provided radiocarbon results of deposits of a highly contemporary character (Lødøen, 2014), which therefore supports the dating evidence from Vingen. Based on the available evidence, it seems plausible to date the rock art on the basis of human activity by hunter-fisher groups in the area to between 4900 and 4200 cal BC, corresponding to the latter part of the Late Mesolithic period. Future approaches may be capable of precisely delimiting the rock art activity at Vingen. The images are very similar to each other, and so it would seem reasonable to suggest that they were produced within a much shorter time span, perhaps just a few generations, although the iconography and the area may still have been used for hundreds of years on the basis of the iconography, which could have functioned as grand ancestral narratives for many generations.

Why was the rock art produced?

Until now, most researchers have mainly focused on the animal images in the rock art, often concluding that the imagery must have been associated with hunting activity or the exploitation of resources, and arguing that the site functioned as a hunting ground or an assembly site for the exchange of knowledge between different groups. This is probably also caused by the assumption that the rock art was produced by hunters or hunter societies. However, the presence of highly significant anthropomorphic images provides us with substantial information of a completely different kind, offering an alternative interpretation of the rock art. Having studied these images in detail, I consider that all of them are representations of deceased individuals, not only dead members of the societies, but definite skeletons, and this provides us with much more information about the content of the rock art. This also seems to be the case for the human-like images at the contemporary site of Ausevik, where ribs are highly visible, palms are missing, but long fingers and toes leave little doubt that these are representations of skeletons (Lødøen, 2014).

The presence of these obviously disincarnated anthropomorphic representations clearly addresses

the fact that the societies and the producers behind the rock art must have had a clearly institutionalized awareness of skeletons. I will therefore claim that this must be associated with secondary burials or the secondary treatment of corpses, which provides us with another understanding of the rock art (figure 3). It is then more complementary to studies of burial remains, and provides us with a better insight into some of their thoughts regarding mortuary rituals and the afterlife. It is interesting to note that in Scandinavia, there seems to be a higher presence of cemeteries in the Late Mesolithic period, which may correspond with the dating of the rock art.

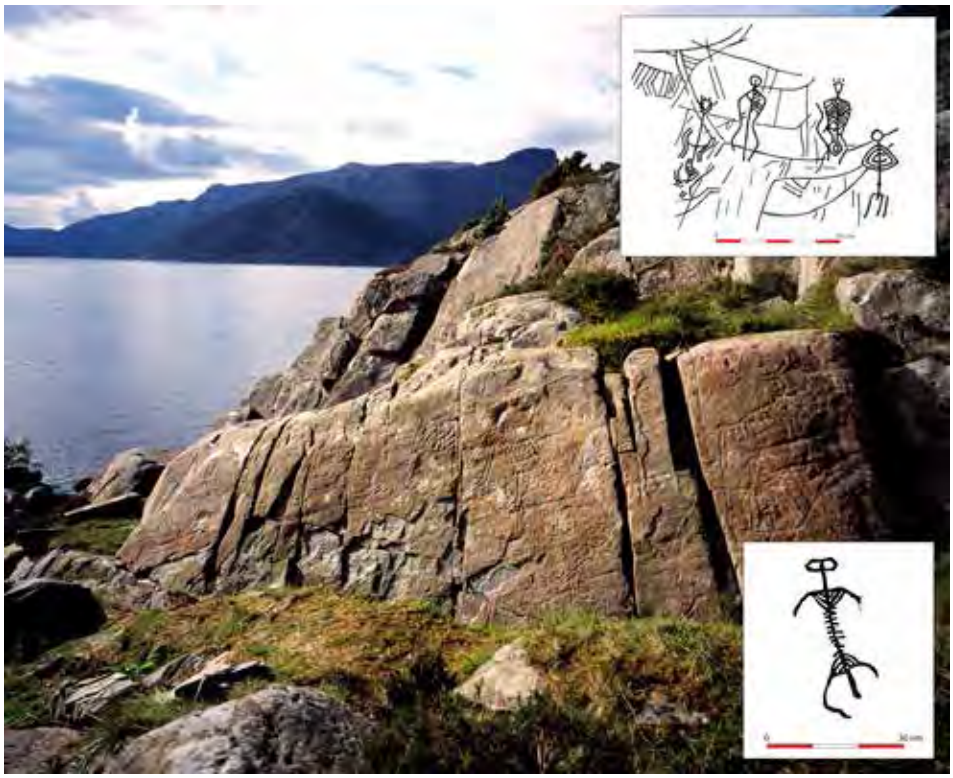


Fig. 3. Some of the skeleton and red deer images, which clearly associate the rock art with mortuary rituals

It has also been claimed that from the Palaeolithic and through most of the Mesolithic, mortuary rituals involved secondary rituals leading to disarticulation in their final stages (Cauwe, 1988; 2001; Nilsson Stutz, 2003). However, in the Late Mesolithic there seems to have been greater respect for the integrity of the body and a focus on the completeness of skeletons. Studies of secondary burials have also argued in favour of the soft tissue being highly associated with the soul, and that the disincarnation process releases the soul (Hertz, 1960[1907]; Block, Parry, 1982; Metcalf , Huntington, 1991). From the ethnographic record, we also know of the belief in the soul being carried from one individual to another with the help of animals or animal spirits (Guemple, 1994; Willerslev, 2007: 32, 105; Zwelebil, 2009: 44).

This also leads on to the idea of how the iconography is organized in the area. The Vingen site is characterized by a number of ledges running from east to west, and it is interesting to see how these were actively used to structure the prehistoric rock art. The images all seem to be arranged in a highly conspicuous manner, where only animals on the south-facing ledges are depicted as if they are being led to the site from the west. This motion is balanced by iconography or narratives on the north-facing ledges, where animals who are often accompanied by skeletons seem to be moving in the opposite direction, from east to west. I will therefore suggest that this should be perceived as a potential death cycle or soul cycle, and that the rock art deals first and foremost with past understandings of regeneration (Lødøen, in press). This way of understanding the rock art sites from this period also seems to be supported by their location in the landscape, often at the head of fjords or in the inner part of the coast, while habitation sites during this period, the Late Mesolithic, seem to be more permanently located at tidal currents on the outer coast, thus providing a steady supply of resources for these groups. This implies that the rock art sites are associated with a much more withdrawn or concealed location, which may be connected with the esoteric nature of rock art matters or cosmological activity. Perhaps they were dealing with forces that could have been harmful for the rest of the population, and were therefore kept at a distance. Based on ethnographic studies, it seems plausible to argue that these societies may have had at least a three-tiered cosmology, separating the living world from both an upper world and a corresponding underworld, where deities or death spirits may have existed. Cosmological levels

Fig. 4. The location of images in between boulders, where natural cracks and veins make up part of the iconography, and the active use of the natural topography seem to indicate that clear attention and focus were directed towards a perceived underworld.

could also have been perceived along a more horizontal orientation, thereby helping to explain why rock art sites from the hunters' tradition are often located in the interior, possibly indicating that certain death spirits were present in the interior where most of the rock art sites were located (Anisimov, 1963; Zwelebil, 2008: 43). It should also be mentioned that the latter perspective corresponds with votive deposits of axes, which seem to be highly present at least in the interior of western Norway during this period.

It is therefore interesting to see that the skeletons and red deer are highly associated with each other on the rock art panels, but also in the cemeteries in the form of antlers or bone fragments from red deer in human graves. Another factor in the Vingen site is that there are a number of features that were previously interpreted as dwelling sites, which are now partly excavated, and where more specialized activity has been documented (Lødøen, 2003; 2013). These are located in between boulders and panels with rock art, and also seem to be closely associated with skeleton images. However, their content are in a poor state of preservation. But it is interesting to consider these structures as communal tombs or similar, where bone materials from disarticulated clan or group members were stored or gathered for their afterlife. Or perhaps they may have functioned as disincarnation huts, where the soul could have been released. The dating of the abandonment of the site is interesting, and also seems to correspond with a new epoch of disarticulation that seems to have taken place in the rest of Nordic and Atlantic Europe, using the megalithic chambers from the Early Neolithic. How western Norway relates to this is far from clear, but this could be a research topic for the future. This type of function for the inhabited depressions corresponds with the narratives for the area, in which animals are led to the site and seem to depart with skeletons. In order to answer the why question I will therefore claim that the rock art site deals first and foremost with the souls, in combination with regenerative matters. It is not yet clear for whom the site was meant, or if the skeletons that can be identified are representations of specific individuals or more collective ideas.

To whom was the rock art addressed?

As the iconography clearly takes advantage of natural features in the rock, and many images are depicted beneath stones and inside cracks, they seem to be related to a potentially perceived underworld of the past, something that also seem to fit with votive deposits found beneath boulders that have been documented from the same period (figure 4). This seems also to fit well with interpretations claiming that the surfaces where rock art has been found were perceived as a membrane separating the world of the living from the realm of the dead or the underworld (Lewis-Williams, Dowson, 1990). The rock art therefore functioned as a means of communication, as it was both brought up from the underworld and left in the border zone between different realms. The images pecked in the surface of the rock or in the membrane could also be used to impose ideas from the living world on spirits in the underworld, and as such may have made sure that souls being released and transported from an individual were guided by the rock art to their appropriate realm.

References

Anisimov, A.

1963 Cosmological Concepts of the People of the North, in Michael, H. (ed.), *Studies in Siberian Shamanism*, Toronto (University of Toronto Press).

Bakka, E.

1973 Om alderen på veideristningane, *Viking* 37, Oslo, pp. 151–187.

1979 On Shoreline Dating of Arctic Rock Carvings in Vingen, Western Norway, *Norwegian Archaeological Review* 12(2), pp.115-122.

Bloch, M.; Parry, J.

1982 Introduction to Death and the Regeneration of Life, in Bloch, M., Parry, J. (eds.), *Death and the Regeneration of Life*, Cambridge (Cambridge University Press), pp. 1-44..

Bøe, J.

1932 Felszeichnungen im westlichen Norwegen I, Vingen und Hennøya, *Bergens Museums Skrifter* 15, Bergen.

Cauwe, N.

1988 Sépultures collectives du Mésolithique au Néolithique, in Guilaine, J. (ed.), *Sépultures d'Occident et géneses des mégalithismes, 9000-3500 avant notre* ère, Séminaires du Collége de France, pp. 11-24.

2001 Skeletons in Motion, Ancestors in Action: Early Mesolithic Collective Tombs in Southern Belgium, *Cambridge Archaeological Journal* 11(2), pp. 147-163.

Guemple, L.

1994 The Inuit Cycle of Spirits, in Mills, A., Slobodon, R. (eds.), *American Rebirth: Reincarnation Belief among North American Indians and Inuits*, Toronto (University of Toronto Press), pp.107-122.

Hallström, G.

1938 *Monumental Art of Northern Europe From the Stone Age. I. The Norwegian Localities*, Stockholm (Thule).

Hertz, R.

1960 [1907]. A Contribution to the Study of the Collective Representation of Death, in Hertz, R. (ed.), *Death and the Right Hand,* pp. 27-86, published in Paris in *L'année sociologique*, 1907, translated by Rodney and Claudia Needham, Aberdeen (Cohen & West).

Hjelle, K.; Lødøen T.

2010 Activity, settlement and vegetation in Prehistoric Times, in Lødøen, T.K. (ed.), The Rock Art Project – Securing and Protecting Rock Art. University of Bergen 1996- 2005, *Rock Art Reports from the University of Bergen*, pp. 133-143.

Lewis-Williams, J.D.; Dowson T.

1990 Through the veil: San rock paintings and the rock face, *South African Archaeological Bulletin*, 45, pp. 5-16.

Lødøen, T.K.

2003 Late Mesolithic Rock Art and Expressions of Ideology, in Larsson, L., Kindgren, H., Knutsson, K., Loeffler, D., Åkerlund, A. (reds.), *Mesolithic on the Move*, Papers presented at the Sixth International Conference on the Mesolithic in Europe, Stockholm 2000, Oxford (Oxbow Books), pp. 511–520.

2013 Om alderen til Vingen-ristningene, *Viking*, 76, pp. 7-34.

2014 På sporet av senmesolittiske døderiter – Fornyet innsikt i alderen og betydningen av bergkunsten i Ausevik, Flora, Sogn og Fjordane.

2015 Treatment of corpses, consumption of the soul and production of rock art. Approaching Late Mesolithic mortuary practices reflected in the rock art from Western Norway, *Fennoscandia Archaeologia*, (In press).

Lødøen, T.; Mandt, G.

2010 *The Rock Art of Norway*, Oxford (Windgather Press).

Metcalf, P.; Huntington, R.

1979 *Celebrations of Death. The Anthropology of Mortuary Ritual*, Cambridge (Cambridge University Press).

Nilsson Stutz, L.

2003 *Embodied Rituals & Ritualized Bodies. Tracing Ritual Prectices in Late Mesolithic Burials*, Acta Archaeologica Lundensia Series in 8º, No 46, Lunds Universitet, Lund.

Willerslev, R.

2007 *Soul Hunters. Hunting, Animism and Personhood among the Siberian Yukagirs*, Berkeley (University of California Press).

Zvelebil, M.

2008 Innovating Hunter-Gatherers: The Mesolithic in the Baltic, in Bailey, G., Spilkins, P. (eds.), *Mesolithic Europe*, Cambridge (Cambridge University Press), pp. 18-59.

The Rock Art For Art's Sake; An Aesthetic Approach

Cristina Lopes
Master in public heritage, art and museology by the Faculty of Arts of the Lisbon University, Portugal.

Alas, what are you after all, my written and painted thoughts!
"Beyond Good and Evil"
F., Nietzsche

Abstract
My contribution starts with the purpose of demonstrating an aesthetic approach to rock art. Rock art represents a social system of expressed language through painting or depiction. Aesthetic insight permits a knowledge, in that each work of art may be considered as the support of an unlimited number of different interpretations. Furthermore we may see that each work of art is part of a broader concept, in terms of graphic language and style (Bayer, 1978), their features allow us to have a glimpse to the way of life, and thinking, of the artist and the group. Therefore, we do not need to know the intentions of the makers of rock art in order to usefully approach any rock art manifestation from an aesthetic point of view.

Introduction
Rock art is proposing some valuable insides about engravings and paintings produced by our ancestors. The importance of that study, may provide to archaeology tools for the understanding of past societies, even for the understanding human evolution. It may as well be seen as the first artistic representations, since humans developed a cognitive device (Geertz, 1978). That cognitive ability, since the appearance of *Homo sapiens* makes it possible to produce artistic expressions. It is quite interesting to note that the motives that we may find in rock art are transversal all over the globe (Anati, 2007). Al this is an act of communication, what we may infer on that, depends on the query that we put forward. The different approaches are usually related to human communication.
The rock art representations may be analyzed as tree different levels of messages: Those that are not legible, those that have some meaning or a kind of narratives, and those that have a higher aesthetic approach and provide a higher degree comprehension.
The first level include cup marks, lines, dots and that kind of things, that are sometimes called maps, or astral maps, as a whole series of abstract representations, sometimes only slightly scratched. The second one include engravings and paintings, showing images worshiping, hunting, breeding animals, having intercourse, and other scenes even schematic, but that allow a narrative (Saussure, 1995), even if it could be our own interpretation rather different from the artist that produced it. The third level present aesthetically a higher level of representation. The quality of the work and the conceptual interpretation, produce a linking with the sublime. In that group may be included the paintings of Lascaux, Altamira, Serra da Capivara, and engravings of

Fig. 1. Sand rock. (Photograph by Jane Kolber).

Valcamonica, Foz Côa, Creswell Crags, and others.

Fig. 2. Detail of Sand rock. (Photograph by Jane Kolber).

Operational concepts in rock art

The rock art of *sapiens* populations is the mirror of their mind and spirit and is a valuable record of the conceptual and psychological matrix in which it was developed. Populations whose livelihood depended on hunting and gathering, are now virtually extinct, and the last one are confined to the most inhospitable parts of the planet. However, many aspects of human behavior, continue to show characteristics acquired by our ancestors. According to Anati, "The fundamental processes of association and logic have developed along ages in which the human species acquired its basic behavioral patterns (Postulate EA1)." (Anati, 2010a: 29). The art arose as something inherent to human beings. When *Homo sapiens* appeared the symbolic representations, in artistic form, started to be materialized. It is a process that cannot be analyzed by determinism, but rather responds to a creative appeal, which can be spiritual, symbolic, and aesthetic.

For some authors art is a plastic and symbolic creation, the result of a culture, which takes place in a time and in a defined space (Lasheras Corruchaga, 2003: 66-67). A similar explanatory model is expressed by Balbin and Alcolea (1991). While others, prefer to say that the rock art shows the connection of man with the space in which it moves and acts. It is the means of expression that reflects the conceptions and ideologies of pre-literate man. Seen as a way of communication of multiple causes, it is conditioned by economic, social and geographical context and by magical-religious beliefs.

In structuralist point of view the concept of culture, value the adaptive character of human groups, an organizational logic of thought that structure the actions and social relations (Leroi-Gourhan, 1982; Levi-Strauss, 1991). André Leroi-Gourhan, along with Annette Laming-Emperaire, is responsible for a scientific paradigm innovative to the time. They used structuralism for the interpretation of Palaeolithic art, using assumptions developed in the excavations of living sites. Each site is interpreted as a unit in which it is necessary, to discern the relationships between each of its elements. The beautiful paintings of animals, in the caves, represent according to Leroi-Gourhan (2007) a dualistic language of the male and female principle. The first represented as horse and the second as bison. Leroi-Gourhan sees the entire Palaeolithic representations as overlapping, coupling or associating groups of animals, like masculine and feminine principles. Possibly in some cases the artist was trying to keep the sacred balance between feminine and masculine. For Leroi-Gourhan in a typical sanctuary, there are two types of "predominant animals," the aurochs and bison (female element) and horses (male element). These animals are sometimes accompanied by peripheral representations, such as deer, wild boars,goats. Further, strange beings are represented with mixed features zoomorphic and sometimes anthropomorphic. In addition to the more usual binomial bison / horse, exist other associations, for instance, Baptista supports the occurrence of the triad horse, auroch, goat, for the region of Foz-Côa (Baptista, 1999).

Clottes (2003), opts for an approach that at some point denies the concept of style, highlighting the ethnocultural concept. With a deep meaning of religious character, where the hidden, mysterious and ritual merge with shamanic, totemic and the propitiatory magic for hunting and fertility in the cave sanctuary. According to David Lewis-Williams, the neuro human psychological model, as the functioning of the central nervous system, is shaped by cultural circumstances, life experiences and altered states of consciousness. He reached these conclusions having conducted extensive studies with the San of South Africa (Lewis-Williams, 2002: 136) or the Mojave Desert population (Lewis-Williams, 2002: 163). It is the very rock which in many cases determines the composition. Those perspectives contradicts the concept of "sanctuary" of the structuralists as Annette Laming-Emperaire or Leroi-Gourhan. They pronounced that the artists had a great scheme, drawing animals and signs due to a pre-concerned program. The constant and thorough search of natural profiles to recall animals, shows a different intention, as is the cave, in some cases, that requires the representation of a particular animal (Clottes and Lewis-Williams, 2007: 52-53).

Concluding remarks

In this paper have been draw some considerations about aesthetic and about operational concepts in rock art. Comparing some of the different current approaches and trends in rock art studies may help to understand the pictures. Currently, approaches are more cautious, investigating the circumstances of each site before taking an overall conclusion especially in Palaeolithic art. There is a general trend to admit very diverse motivations, different artistic schools and even different religions. The plural approach has been replaced by the multiple and the uniqueness of each site. It has also introduced the idea (similar to contemporary action-painting) that the mere fact of developing a work of prehistoric art, the gestures performed, all of that is a ritual in itself.

The difficulty but also the challenge in doing an aesthetic judgment might depend on the senses, emotions, will, desires, subconscious behavior, values, sociological institutions, or some complex combination of these in different emotional and individual factors.

My point of view about the aesthetic analyses is like with one that Kant stated, in which enjoyment is the result when pleasure arises from sensation, but judging something to be beautiful in a higher level has a third requirement. Sensation must give place to pleasure by engaging our capacities of reflective contemplation. Judgments of beauty are sensory, emotional and intellectual at once.

Art usually implies no function other than to convey messages or communicate ideas. Skill is used to express the artist´s creativity, or to engage the audience´s aesthetic sensibilities (Kant, 1974) or even to draw the audience toward consideration of the "finer" things.

References

Abreu, M.S., de

2008 Arte Rupestre em Mação, in *Arqueologia Rupestre – Uma visão arqueológica da Arte Rupestre*- Programa, Mação (Edição Instituto Terra e Memória/ Camara Municipal de Mação).

Anati, E.

1997 *I segni della storia*, Roma (Di Renzo Editore).

1999 Grafismo e semiotica nell'arte preistorica e tribale, *BCSP*, vol. 31-32, Valcamonica Symposium'97, Grafismo e semiotica, pp. 11-32.

2002 *Lo stile come fattore diagnostico nell'arte preistorica*, Capo di Ponte (Edizioni del Centro).

2007 *Capire l'arte rupestre,* Studi camuni, vol. 26, Capo di Ponte (Edizioni del Centro).

2010a *World Rock Art*, Oxford (Archaeopress).

2010b Definire l'identità*, BCSP*, n. 36, pp. 9-40.

Bayer, R.

1978 *História da Estética*, Editorial Estampa.

Balbin Berhmann, R. de; Alcolea, J.J.; Santonja, M.

1991 Siega Verde (Salamanca). Yacimiento artístico paleolítico al aire libre, in *Del Paleolítico a la Historia*, Salamanca (Museo de Salamanca), pp. 33-48.

Baptista, A.M.

1999 O ciclo artístico quaternário do Vale do Côa – com algumas considerações de método sobre estilos, valoração estética e crono-estratigrafia figurativa, in Cruz, A.R.; Oosterbeek, L. (coord.), *1º Curso Intensivo de Arte Pré-Histórica Européia*, Arkeos n. 6, Tomar (Centro de Pré-História do IPT), pp. 197-277.

Binford, L.R.

1983 *In Pursuit of the Past*, London (Thames and Hudson).

Burke, E.
1990 *A philosophical enquiry into the origin of our ideas of the sublime and beautiful*, ed. and with introduction by Phillips, A., Oxford (Oxford University Press), (first published *1757)*.
Clottes, J.; Lewis-Williams, D.,
2007 *Los chamanes de la prehistoria*, Barcelona (Ariel Prehistoria).
Clottes, J.
2003 *El arte parietal paleolítico*, in Lasheras, J.A. (ed.), *Redescubrir Altamira*, Madrid (Museo de Altamira), pp. 93-117.
Coimbra, F.
2008 Cognitive archaeology, rock art and archaeoastronomy: interrelated disciplines, in Coimbra, F.; Dimitriadis, G. (ed.), *Cognitive archaeology as symbolic archaeology*, XV Congresso UISPP, Lisboa, session C52, vol. 23, Oxford (Archaeopress).
Geertz, C.
1978 *A interpretação das culturas,* Rio de Janeiro (Zahar).
Hodder, I.
1982 *Symbols in Action*, Cambridge (Cambridge University Press).
Huisman, D.
1994 *A Estética,* Edições 70.
Kant, I.
1974 *Crítica da razão pura e outros textos filosóficos*, São Paulo (Abril Cultural).
Laming-Emperaire, A. (s.d.),
Systeme de pensèe et organization social dans l'art rupestre palèolitique, in *Homme de Cro-Magnon – Anthropologie et Archèologie, (1800-1960)*, Centre de Recherches Anthropologiques, Prè-Historiques et Etnographiques, Paris.
Lasheras Corruchaga, J.A.
2003 *El arte paleolítico de Altamira*, in Lasheras, J.A., *Redescubrir Altamira*, Madrid (Museo de Altamira), pp. 65-91.
Leroi-Gourhan, A.
2007 *As religiões da Pré-História*, Lisboa, Edições 70, Colecção Perspectivas do Homem.
1982 *The Dawn of European Art: Introduction to Paleolithic Cave Painting*, Cambridge (Cambridge University Press).
Lewis-Williams, D.; Pearce, D.
2005 *Inside the Neolithic Mind,* London (Thames & Hudson).
Lewis-Williams, D.
2002 *The mind in the cave*, London (Thames & Hudson).
Lyotard, J.-F.
1988 *L'Inhumain. Causeries sur le temps*, Paris (Galilée).
Renfrew, C.; Bahn P.
1991 *Archaeology*, London (Thames & Hudson).
2004 *Archaeology: theories, methods and practice*, London (Thames & Hudson).
Renfrew, C.; Shennan S.J. (eds.)
1982 *Ranking, Resource and Exchange*, Cambridge (Cambridge University Press).
Shanks, M.; Tilley, C.
1987a *Reconstructing Archaeology: Theory and Practice*, Cambridge (Cambridge University Press).
Saussure, F.
1995 *Cours de linguistique gérérale*, Paris (Payot).

Rock art in high Lunigiana (MS, Italy)
Rock Art Park of Lunigiana

Angelina Magnotta
President, A.L.A.T.E. (Archeoclub of Italy, compartment *Apuo Ligure Appennino Tosco-Emiliano)*

About one hundred cup marks and rock carvings were discovered between 2012 and 2015 by *ALATE* in High Lunigiana, near Pontremoli. Some of them was personally discovered by the Author of this article. A preliminary report of our work and discoveries was published in January 2014 by Sansoni and myself[1], and in October of the same year one of our sites was inspected and considered as very interesting by an Officer from the Superintendence of Archaeology of Pisa.

Fig. 1. Picture of the rock carving called *Female*. In *Female* carving the anatomic details, emphasized, are represented with unexpected realism. On the rock plain the carving presents in width cm 22, in height cm 32, in depth cm14. It may be an older carving, who appears perhaps carved with hard stone, considering its form, almost regarding a not finished work.

when- The rock art in Lunigiana Highlands may have been produced by a Society of hunters gatherers, but also shepherds and herdsmen. Dating of carvings has so far not been established. Some rocks, such as the so called *Female* (figure 1), were likely carved with a hard stone, while some others were polished by use of metals, like *The Almond* (figure 2), therefore the carvings may belong to different periods. At present, the findings from the context were only two fragments of metal, likely bronze, in the ground scratched by the wild boars, almost below the carved rocks. The two metal fragments are now at the Superintendence of Pisa for examination of chemical composition and dating.

Fig. 2. Picture of the rock carving called *The Almond*. Height cm50, width cm42, depth cm20. The remarkable difference of general composition and execution between this carving, representing the female nature.

why- Many would be the reasons why that people produced their numerous engravings:
to mark land boundaries in a territory of passage from the Orsaro mountain chain towards the Ligurian coast;

1 Sansoni, U.; Magnotta, A., 2014, in *Archeologia Viva*, n.1 gennaio/febbraio 2014.

Fig. 3. Picture of the rock carvings called Oblong Shield (width cm28, height cm22, depth max cm10) and Archaic Cameo (width cm36, height cm33, depth cm19). The latter is placed in the almond, but turned over. According to Polybiusii, the oblong shield is typically Apuan-Ligurian.

to communicate the matter of its own knowledge, customs and traditions;
to memorize its own religion;
to show and memorize the ancestors' cult, especially fighters' cult, like in a recently discovered carving, in the shape of a human head, near to another carving above with the shape of a shield. It is possible that both these engravings make reference to the Apuo-Liguri people. In fact, Polybius reports2 about the 'oblong shield', as being typically Apuo-Ligurian.

TO WHOM- Some kind of engraving seems to turn to a specific receiver, although it would be meaningful for everybody.
Some were probably addressed, to foreign visitors who crossed the mountainous territory. Some carvings of Moon, especially those placed on the highest rocks, may refer to the People-of-the-Moon, i.e. *Luni*-Land (*Luna* in Latin means Moon), today called *Luni*giana. Carvings of different sites, concerning sexual intercourse were perhaps addressed to young generations, pertaining to the clan's life and to its continuity. In this typology are also included *Female* (figure 1) and *The Almond* (figure 2), representing the female sexual organ.
To the ancestors' cult are dedicated the carvings like *Archaic Cameo* (figure 3), like the *Human Bas-relief*, similar to *Stele,* and like three images supposedly representing died babies. All those carvings, concerning ancestors' memory and cult, are a message

Fig. 4. Picture of the rock so called *Temple of Mother Goddess*. It is almost seven meters high, it has a shape of a crowned head on the top and vulvar form on the bottom. It contains some significant symbols, like the *Goddess Eye* on right side (non visible in photo), the *Orion belt* on left side (visible), a human hand and a cradle engraved in the lower part of the rock. Its typology was defined pillar-temple by Gimbutas (Gimbutas, M., 1989, *The Language of the Goddes*, New York, Harper & Row).

2 *Polybius: The Histories*, The Loeb Classical Library (in Ancient Greek, English, and Latin), London; New York: William Heinemann; G.P. Putnam's Sone. XXIX,14,4.

and an incentive to the continuity of worshipping.
To the Nature and to its elements are addressed several carvings applicable to the sacred origin and to water, like primary element, in *Tortoise's Cupmark*, *Frog's Cupmark, Drop's Cupmark.* Certainly to the Nature are addressed several carvings of the stars (*Syrius* and *Orion*, that one who appears like *The Milky Way*, engraved on an archaic 'ceiling' in a rock shelter, of the *Sun*, and of the lunar phases and theirs symbolism, on *The Rock of the Moons.*
To the *Mother Goddess* maybe be inspired the so called *Temple of Mother Goddess* (figure 4), with the crowned head, like the Goddess Isis, where perhaps the ancestor mothers went to deliver their babies, like it let to suppose a hand and a cradle engraved in the rock of the Temple. To gods and to heaven-earth connection is also inspired *The Giant Menhir,* with great circular cup marks.
The makers of the cup marks and of the engravings, even if in different manners, typology, subjects and also periods of their creations, always expected their rock art to transmit religion, customs, knowledge, last but not least to strengthen their social and historical identity, writing before writing.

Rock art and pebble drawings: different ways to communicate the same message?

Federico Mailland
Co-director, Italian archaeological project at Har Karkom, southern Negev, Israel.
Lugano, Switzerland.

Ancient pebble drawings lie on the flat surface of the Har Karkom plateau. They most likely belong to different prehistoric periods, as differences among the represented subjects and drawing styles evidence.
The aim of this paper is to demonstrate that the prehistoric pebble drawings responded to the same religious beliefs and myths of rock incisions and paintings. The site of Har Karkom is rich in thousands of rock art sites above and around the mountain, which confirm and validate the religious value of the site. In particular, it is considered the rock art of style IV-A as per the classification of Anati (2010). In this period, which reportedly started in the Late Chalcolithic to Early Bronze Age, details of the main rock incisions are missing and design tends towards schematization, to a linear design. Animals may be depicted as one horizontal stroke as body, and four vertical strokes as legs. The far most frequent image represented is the

Fig. 1. Har Karkom site HK/101b: Pebble drawing of an ibex. The figure is 5 m long and lies in the middle of a small flat area at the very northwestern edge of the plateau. Rocks with, among others, ibex incisions of period IV-A are found in the site.

ibex, an animal characteristic for the length of its horns, exaggerated in the figures of this period. At least three pebble figures, among those found on the mountain and surroundings, follow a similar schematization, with a horizontal alignment of stones for the body, four vertical lines for the legs, and two curved, parallel lines originating from one end of the figure (suggesting the head) and directed towards the other end. The maximum length of the geoglyphs is about 5 m (figure 1), 8 m (figure 2) and 2 m (figure 3), respectively. Geoglyphs of Figures 1 and 2 are in the context of rock art, tumuli and standing pillars as manifestations of cult on Har Karkom plateau. The geoglyph of Figure 3 was drawn in an agricultural settlement north of the mountain. Interestingly, the animal represented in Figure 2 is accompanied by a 2-m long rectangle, which in prehistoric art is commonly believed to mean territory.

Fig. 2. Har Karkom site HK/10b: Pebble drawing of an ibex. The figure is 8 m long and was in part disturbed. A 2-m long rectangle of pebbles was drawn in front of the ibex. The geoglyph lies on top of a small hill overlooking an orthostat and a low stone wall. Among the findings, a large burin of the Bronze Age chipped on one side was likely used to produce rock incisions. Tumuli and engraved rocks, including figures of period IV-A, are in the vicinity (HK/13a-b).

The horns, as long as the whole body of the animal, have a parallel in a Mesopotamian pottery of the fourth millennium BCE, where the long-horn ibexes are believed to represent the image of the lunar god, the most important one worshipped in the Mesopotamian pantheon. It is well known that peoples from that region during the whole of the third millennium BCE and later migrated to the west, by spreading out over the whole of the Near East. It is assumed that consistently, worship of the lunar god also spread into the whole of the Fertile Crescent and nearby desert areas. This would be the reason why thousands of images of the ibex are present in the rock art of the fourth, third and second millennia BCE in Iran, Jordan, Palestine, Syria, Turkey, Armenia, Arabia and Egypt. A concentration of ibex images is present in the rock art of all periods in the southern and central Negev, reaching 60–75% of all depicted animals, even though this animal did not represent an important source of food during the Bronze Age (Eisenberg-Degen; Rosen, 2013). Hunting scenes with ibex as the hunted prey also do not correspond to the osteological evidence, which points towards the gazelle being the most hunted animal from the Chalcolithic/Early Bronze Age (Rosen; Horwitz, 2005). Thus, magic and religion instead of economics are connected to the images of the ibex, but a point of concern would be the rather frequent representation of hunting scenes where ibex is the hunted prey, not only in the earlier periods, but also in Bronze Age rock art. From the rock art we should conclude that ibex hunting was a part of a ritual in Negev during the Chalcolithic and Bronze Ages. This finds a parallel in Yemen, where ibex hunting, accompanied by ceremonial processions, dancing and singing, was carried out from prehistory until contemporary times (Rodionov, 1994; Keall, 1995) and is interpreted as a pre-Islamic rite of rain and fertility. Fertile lands are strictly dependent on rain, and if lunar worship was connected to rain and fertility, then it would be not surprising that it diffused into desert areas. The association between the ibex image and the lunar crescent in cult objects (figure 4) is frequent, and that strengthens the thesis that the ibex image in the prehistoric art of a vast area from Mesopotamia to the Nile valley, from Anatolia to the Arabian peninsula, was related to the lunar god worshipped in the whole of the Near East.

Drawing the images of ibex by aligning stones on

Fig. 3. Beer Karkom site BK/176: small pebble drawing of an ibex, 2 m long. The large horns complete a circle above the animal's back. The figure is in the context of a seasonal agricultural settlement from the Late Chalcolithic period, reused until the Early Bronze Age.

the flat surface of Har Karkom responds to the same religious meaning in rock art and mobiliary art; thus it should be possible to answer the three questions as follows.

When and by whom?

The geoglyphs of ibexes were rendered by an extreme schematization. This should let us hypothesize when they were drawn. Not all the geoglyphs at Har Karkom are so schematic. Rather, they reflect the drawing styles of specific periods. In earlier periods they were much more naturalistic, with anatomic particulars rendered despite the raw material used to produce the drawings. Other pebble figures suggest motion or an aggressive bearing, while our ibexes are static. Thus, our geoglyphs have been drawn in the Early Bronze Age, by the same pastoralist-agricultural society which produced rock art IV-A in the Negev, but mostly on the top of Har Karkom. It is noteworthy that the schematization of the images is very similar to the rock art of that period.

Why?

The message left by the pebble drawings was that the place was sacred to the moon god. The presence of geoglyphs strengthens the value of the ibex image as the totemic animal for the mountain. The presence of a rectangle image near an ibex renders the association even more robust: the place is the territory of the god Sin, of the moon. The geoglyphs were mainly drawn in proximity to tumuli, funerary fields and boulders with rock engravings. Pebble figures of ibex would have been drawn as markers of holy places at Har Karkom during the Bronze Age. Furthermore, the image of the ibex in an agricultural settlement would have been propitiatory for rain and the fertility of the land.

To whom

The geoglyphs, with few exceptions, are so large that they are hardly visible from the ground. The best view is from an altitude of 50–100 m. In fact, the study is only possible by taking zenithal pictures and to do that, we used a camera hanging from a balloon or a kite. The large dimensions of the geoglyphs, though the ibex images were not the largest among the figures represented at Har Karkom, led us to consider that they were drawn to be seen by the sky, that is, by the moon. Even the choice of the mountain as sacred place has the same significance: to be as near as possible to

Fig. 4. British Museum: Bronze incense burner with ibex figure, from Marib, capital of the Sabaean kingdom. Note the exaggerated size of the horns and the lunar crescent above them

the sky and the moon.
In conclusion, drawing on the landscape led the ancestors to represent some ancient myths and beliefs by this form of art. So far, the investigation of the geoglyphs has been neglected by archeologists, but the survey and study of this form of art at least in desert areas would add an important piece to the knowledge of beliefs and messages left from the ancestors.

References

Anati, E.
2010 *World Rock Art. The primordial language*, revised ed., 4th English ed., Oxford (Archeopress).
Eisenberg-Degen, D.; Rosen, S.
2013 Chronological Trends in Negev Rock Art: The Har Michia Petroglyphs as a Test Case, *Arts*, 2, pp. 225-252.
Rosen, S.A., Horwitz, L.K.,
2005 Vivat, Hayil. 35: A Stratified Epipaleolithic Site in the western Negev, *Journal of the Israel Prehistoric Society*, 35, pp. 201-228.
Rodionov, M.
1994 *The ibex hunt ceremony in Hadramawt today*, in Bidwell, R.L., Rex Smith, G., Smart, J.R. (eds.), *New Arabian Studies*, Vol. 2, Exeter (University of Exeter Press), pp. 123-124.
Keall, E.J.
1995 Forerunners of Umayyad Art: Sculptural Stone from The Hadramawt, in *Muqarnas*, *An Annual on Islamic Art and Architecture*, Vol. XII, Brill, E. J.; Leiden.

Rock art: a universal creative act

Subhash Chandra Malik
Retired Professor of archaeology, New Delhi, India.

Rock art research is a well established discipline in many parts of the world. Lately, there has been a healthy questioning of theoretical frameworks and there is a great deal of interest in comparative ethnographic data for interpreting rock art. There is awareness of the constraints involved in reconstructing the past, especially the archaeologist's own viewpoint. Subjectivity here does not merely refer to the individual, it also points to the cultural biases, say, euro-centrism, formulated within certain evolutionary schemes, beginning with the palaeolithic, along with the classificatory chronological concepts. There has been little success when these sequences were applied in non-European zones. It also led to an almost total neglect of studying indigenous traditions which have their own models appropriate to local spatio-temporal distributions. The aim of this paper is to indicate, in order to broaden horizons, that rock art may be viewed within the framework of an overarching artistic creative act which runs as a common thread through various cultural communities. For instance, is it not possible to understand rock art by approaching it from a cosmogenic universal act that is linked to local such expressions irrespective of time and place? May it then not provide crucial insights into many contemporary human issues confronting modern man? Rock art thus also needs to be visualized as a universal phenomenon, in the sense of being a common cultural heritage of humankind as such. Of course, nations do claim it to be so but in terms of their cultural and political identity, or in search of man's common identity. However, this approach transcends regional identities. In rock art studies, the word art itself has a limited concept, as it is governed by various cultural connotations, often monolithic definitions, rather than by other sensibilities and freedom of expression, that may be common to all of humankind. The modern notion of art as mere aesthetic beauty for its own sake is a limited way of seeing artistic creation. Other cultural, especially non-industrial, communities

locate art within many other aspects of life, within a sacredness of the world order, the supernatural or the noumenal dimension. This is why ethnology, myths, beliefs provide important alternative ways of viewing rock art, of course supplemented with archaeological records. This is why it is important to enquire into unexamined assumptions which have governed the study of archaeology, cultural and history in this subcontinent. In doing so, we may be able to formulate holistic approaches to the knowledge of the past. To illustrate, it is normal to locate events within a past, present and future framework. This movement of time is considered external to the body-brain mechanism and it is seldom noted that external-internal movement is not only closely linked but it is in fact one movement. It is split because of the sociocultural system, within symbolic semiotic languaging terms that make up the framework of most human societies. In this way rock art may be viewed in the Indian setting, where there exists tremendous variation in cultural configurations, along with a multitude of variables. If the goal is to search for meaning behind rock art, we have to move beyond the mechanistic, analytical and evolutionary approaches to the direction of intuitive-aesthetic, beyond pseudo-religious explanations. This may allow the decoding of the total symbolic system within the framework of the universal nature of art (Malik, 1995).

Rock Art qua Art

There is a growing realization that any philosophy or explanation of art without an account and understanding of aesthetic experience is inadequate and lifeless. The theory of an expression of this directedness of consciousness upon an object is quite different from the universe of discourse that is given shape by artistic experience and expression. Experience is definitely the primal source, common to all human communities. Art experience is an exudation of consciousness from the privacy of the inner, and cannot therefore be treated merely as a thing. The language of art moves beyond the conceptual, semantic and syntactic constraints, to recognize reality in silence. Art experience, thus, both for the creator and the spectator, is dialogic in all its pre-linguistic, linguistic and trans-linguistic aspects (Biswas, 1995). In this sense art signifies a continuity of reality through different spatial and temporal levels. The images of poetry, painting, sculpture and architecture, music, dance, and all other arts constitute such items of knowledge. The questions which arise from such an approach may be listed as follows:

1 What is one's relation with works of art?
2. What is the nature of the creative process?
3. What s the relation between man as an artist and his creations?
4. How is the meaning of art determined?
5. How is the ontological status of art determined? (Biswas, 1995)

Viewed within this general framework, the approach provides a common platform on which all art stands. There is sense of indeterminacy in experiencing a work of art, and there is an absence of fact, which is commonplace in the modern world. The appearances of things are abstracted from their material existence and transformed into visions, forms and images in art. For example, a picture is made with pigments on a rock surface, but the painting that emerges is not pigment on canvas. It expresses its own space and a particular relationship between the human and the world. In short, a work of art has a continuous existence and identity, and like a human being it is a 'no-thing', a non-factual order of being. The modern world is driven by a fact-ridden reality, beset with dichotomies and hierarchies which become irreconcilable. It is only when one understands this basic holistic vision, which gives rise to a non-utilitarian attitude to man and his creative work, that any meaningful insight into rock art research becomes possible. Thus rock art qua art, as an artistic activity, is intrinsically an act of creativity. This is a departure from frameworks such as conflict-confrontation binary opposites (sacred-secular, high-low, literate-nonliterate, urban-rural or tribal, traditional-modern), structural-functional, uni-multilinear evolutionary models and so on. The integral way suggests principles of complementarity, pluralism, concurrency, co-existence, polyvalence and synergy, to view works of art. It is to focus on dynamic interrelationships, as distinct from the de-contextualization of artistic manifestation and expression. This does not mean that any evolutionary process for archaeological records as such are to be discarded altogether. The linear progressive movements

may be seen as subsets of larger categories, especially at a time when the written word and thought had not become so specialized and when man was very much in touch with nature and the cosmos with highly sensitized senses. Experience-experiencing played a central role. The expression of manifestation was through non-verbal images and symbols, artistic or otherwise. This viewpoint allows one to recognize fuzzy areas, twilight zones. These in short are perennial common core principles that are equally valid for all culture, albeit articulated in many different ways. While the natural and social environment does shape artistic expression, herein may also lie the cause of creativity, as there is no linear one-to-one logical connection of explanation of this order of artistic expression. Its source probably lies not in the phenomenal but the noumenal dimension. Art in this sense is both a participatory and universal activity which is unique at the same time that it is timeless, since it springs from a still interiority, a silence that is a form of contemplation. Art in this sense is a manifestation of the unspoken word, authentic in experience that invokes, evokes and provokes the viewer. It is an expression of the totality of life experience, even when connected to rituals, fairs, worship, beliefs and festivals, a very wide spectrum indeed. There are thus different orders of experience, different levels of functional attributes, and formal values and so on of art as such. While all this is valid for art as such, it is equally valid for rock art.

Several questions may arise in the context of viewing art in alternative ways. For instance:

1. What methodologies are to be evolved to avoid dichotomies and binary opposites?
2. In the holistic vision how is one to divide and subdivide for purposes of classification and analysis? Can one eschew analytical methodology?
3. How is one to define art, taking into account religious, technological and environmental parameters?
4. How is one to relate to other cultures, to language and non-language texts, and translating non-verbal phenomena?
5 Is it possible to address different levels at the same time?
6. Is it not possible to take into account non-European or Indian views of culture, in applying them to rock art as the organizing principle in general? If so, what may be the key categories and definitions in the true sense, as the rubric of discourse?

To answer any of these questions, we need to adopt a different approach from the modern or any nationalistic viewpoint. Rock art may be viewed in a variety of ways, as history, psychology, religion, utilitarian-functional, graphic representational motifs of some underlying material aspects of social and cultural life, subsistence patterns, etc. This is the silent common-communion-language of humankind, of an integral vision which is mystic, mysterious, divine and supernatural. This approach is beyond the questions of what, when, where and why, without excluding any of them. It has the advantage that its dynamic and flexible framework of reference expresses different kinds of inherent cultural continuities in terms of myths, dream-times and other motifs which are common to the human species. It is like the common geometrical patterns, stylized lines and so on which arise from the basic rhythm of sound and light, of dance and music. This is the holistic vision of simultaneity that can be understood as part of the experiential level when one lives in touch with the sacred dimension. Modern man with his shrunken outlook is surprised that such primitive people could produce art. The message of art is perennial and authentic because it arises from something non-material in the spirit, and gives moral and spiritual values to one's life.

To illustrate, one can take a hint from the living Indian traditions which still continue to exist in the so-called folk and tribal cultures that have local oral histories in a non-historical way. The designs of rock art maybe seen as psychological symbols and signs, as mandalas, that arise out of a common universal collective consciousness, or Jungian archetypes. For example, simple lines do not just reflect simplicity but representations of an extreme sophistication and is not untrained naturalism. Such patterns are made in pre- and post-meditation states by children of various cultural groups(Kandinsky,1977; Saraswati *et al.*, 1994) Art is the mother of all emotions as it unites all our sense, sound, sight, touch, smell; all are interwoven into each other. Colours trigger off

emotional states, as we all know, red provokes anger, blue is for peace, green is for jealousy and the different permutations and combinations. Paintings are thus symphonies of not only colours but those of sound, taste, smell, feelings of warmth, coldness, lightness and of darkness, etc. In other words, there are grammars of painting which may be deciphered, horizontality and verticality, and so on. These are expressed as follows:

1 Musical movement
2 Pictorial movement of melodic principles
3 Physical movement
4 Spiritual movement of triangles, circles, etc and
5 Mysterious and secret manifestations of the unknown.

Again, traditional art as opposed to the modern is extensive and informal. It generally has certain qualities, such as:

1 It is formal – it involves intensive laborious formality
2 It is repetitive and calls for concentration
3 It has an element of faith and obedience; and
4 There is respect and reverence.

Like music, painting is a combination of composition, which maybe melodic and simple, or symphonic and complex and so on (Kandinsky, 1977).

Summary and Conclusion

Rock art studies require a healthy questioning of theoretical frameworks that have until now formed the unquestioned basis. This paper looks at these issues with regard to approaches. The main ones are, namely, stylistic and chronological studies, comparative ethnographic data in terms of interpretation, the constraints of individual and collective cultural subjectivity (e.g. euro-centrism in archaeology and rock art studies which then attempted to be duplicated in non-European cultural zones), studying local (indigenous) live cultural traditions, to see rock art as a common cultural heritage of humankind (e.g. seeing it as an overarching universal creative act built internally within Homo sapiens). Thinking along these lines, may not rock art research provide crucial insights into many current dilemmas humankind is facing? This means that concepts and definitions of art need to be looked at from many other viewpoints than the modern man's ideas of art which consist mainly of aesthetic beauty for its own sake, maybe functional but certainly not seen for its sacred context which most earlier societies linked it to, to the world at large and the cosmos, a cosmic vision. Thus rock art qua art as an artistic activity is intrinsically an act of creativity. This understanding requires an integral and holistic approach. Creativity is timeless in this sense as it is always present as intelligence inherent in the human species, in a non-evolutionary sense. In this way it is also non-hierarchical in character, which exists in all human societies, both of the past and the present.

Some of the other issues and approaches may be summarized as follows:

1 Concepts and terms, e.g. is it more accurate to say it is palaeo-art rather than rock art, since petroglyphs are to be included also? Is the approach qualitative or only quantitative?
2 New and old methodologies, e.g. stylistic approaches which are often subjective or mere opinions and notions arising from present-day ideas about art. Is there a system for such studies? Are these text-free interpretations of the distant past, especially when there is overlapping? These pictorial images are texts after all, about economics, sustenance, technology, cultural myths, astronomy, the night sky, and the sociocultural context which one can deduce from fragmentary inferential evidence?
3 How reliable is ethnographic analogy, say, in seeking parallels, the closest ones being one presumes from areas in India and Australia? Are these interpretations evolutionary when chronologies are concerned, and even if so, do these archaeological records reflect evolutionary sequence for art also? What is the function of art, is it singular, multiple and/or holistic?
4 What are the concepts behind these studies, say? Is one following the Newtonian 19th-century approaches? Such other epistemological issues need to be taken into account, since science is itself subjective in many ways, consciously or

unconsciously.

5 What is the ethnographic record? Is it correct to give interpretative explanations from information about motifs? There are many viewpoints on these issues.

6 What are the broad anthropological perspectives, what is the rock art tradition to be defined as?

7 How are we to understand cognitive symbolic representations? Are these religious or what?

8 What is our notion of indigenous peoples, are these static, and like the prehistoric ones, and were those peoples less intelligent than us and especially when one calls them primitive from our techno-economic viewpoint, ignoring the fact that human intelligence is the same everywhere and beyond time? Did these groups not have better extra-sensory perceptions of other dimensions which we have lost in the middle of our so-called progress, the techno-economic levels and onslaught of industrial urbanization? And the results of wars and famines indicate that we are more primitive than early man actually; the destruction of the earth and the environment is obvious to everyone.

Finally, India has the third-largest concentration of rock art. Of the over 1 million motifs, animals are the most frequent; humans come next, and symbols and designs third. Various pigments are used such as haematite and other oxides of iron to provide colours in red, yellow, orange or brown, and black and deep purple obtained from oxides of magnesium. For instance, 21 colours were counted from Bhimbetka, ranging from ochre, raw sienna, ashy white, creamy white, vermilion, scarlet, light red, burnt umber, crimson, dark crimson, chocolate and emerald green to black and purple. Most of these compounds are available in surface deposits at a close distance from the painting. All these facts are well known and need not be repeated. However, from the above knowledge areas one may further explore or infer in the light of a creative act.

A million years ago Homo sapiens emerged from his various ancestries, but there is no evidence that intelligence has evolved from the primitive to the modern, in art at least, if not in its expression, perhaps in technology, language, economics, etc, the last having led to violence. The crisis of this statement of progress decries even this statement of an evolution of intelligence; we have more weapons to kill and those too in a massive way indiscriminately. The creative impulse is non-hierarchical and non-linear, and is a manifestation and movement of the archetypes of invisible reality. Academics are out of touch with this cosmic dynamism and this area of the sacred. Today humankind has lost touch with some internal truth wherein lies the seed of the future. Is it really possible to understand art, rock art, within this nightmare of materialism and the despair of unbelief that divides life into various unrelated processes (Malik, 1989)?

References

Biswas, G.

1995 *Art as Dialogue, Essays in Phenomenology of Aesthetic Experience*, New Delhi IGNCA (D.K. Print World).

Kandinsky, W.

1977 *Concerning the Spiritual in Art*, London (Dover).

Malik, S.C.

1989 *Modern Civilization, A Crisis of Fragmentation*, New Delhi (Abhinav).

1995 *Reconceptualising the Sciences and Humanities, An Integral Approach*, New Delhi (Nehru Memorial Museum and Library, Manohar).

Saraswati, B.N.; Malik, S.C.; Madhu Khanna (eds.) *Art: The Integral Vision*, New Delhi (Nirmal Kumar Bose Foundation and D.K. Print World).

Comparative study megaceros-rennes

Michel Martin
Aix en Provence, France.

When?

We present the example of the Chauvet cave, where decoration was produced by hunter-gatherers, undoubtedly through the Upper Paleolithic up to the beginning of Magdalenian. This can be explained through the duration of an entrance at the back-end of the cave, which was not taken into account by the team involved in dating the Chauvet cave.

Two species of cervids are depicted on the walls of the Chauvet cave, the megaloceros and the reindeer, but there is no evidence of them being contemporaneous. To approach this question, we have looked at the art of the Upper Palaeolithic decorated caves, in a period called by H. Breuil the Reindeer Age, between 32,000 BP and 11,000 BP. In total there are 52 megaloceros: 3 unpublished, 6 sites in Spain with 13 figures, 8 sites in France with 36 figures; and 169 reindeer: 10 sites in Spain with 30 figures, 24 sites in France with 139 figures. The Chauvet cave contains 7 megaloceros and 12 reindeer.

Fig. 1. Mégacéros. (Chauvet Cave, 1996).

A comparative study was undertaken between sites with archaeological dates and available C14 data. The date obtained on one megaloceros from A. Leroi-Gourhan's (1965) style III 'implies that people in the Aurignacian anticipated almost the entire development of art in the Upper Paleolithic with all its thematic and stylistic characteristics in just this one cave, whereas outside of Chauvet that art developed again exactly in the same way during the following 15,000 to 20,000 years in Western Europe' (Züchner, 2013). That makes this cave a veritable *unicum*.

Another notion, that of the δ13C, known as the 'isotopic deviation', tells us about the content in the ^{13}C isotope, which determines the origin of the carbon. It constitutes a genuine isotopic signature of this chemical element, distinguishing carbon originating from bear bones in Chauvet (value between -20.1 and -22) from that produced by wood charcoal (value in cold and temperate regions between -26 and -27). As it has been shown that the δ13C of highly degraded bone collagen diminishes by 2 units (Dolberstein, 2009), the value of δ13C of bear bones that are contaminated (through chemical and bacterial pollution) should be around -23. And sure enough, the average δ13C value in a programme of 29 dates carried out at the foot of the slope in Chauvet's megaloceros gallery, where cave bear bones abound, is around -23.3, far removed from that of wood charcoal. The obvious conclusion is that the carbon, after (insufficient) treatment for decontamination, comes mostly from contaminants, and certainly from degraded collagen in bear bones. Moreover, there is almost equality between the dates from alkaline fractions and those from charcoal, indicating that the two groups of fractions have the same composition: all the wood charcoal was eliminated, and the fractions obtained essentially contain contaminants (Jouve, 2011).

A techno-stylistic comparison has been carried out, including a study of cephalic details (like the eyes and nostrils, or the absence of ears for the reindeer at Chauvet and Gabillou, two caves which have many points in common), corporeal details, the level of the insertion of the feet, the degree of animation (as in the running reindeer of Chauvet, which one never finds in the megaloceros, which only walks), outlines,

perspective (horns, feet), and figurative and abstract themes of association, with a predominance of cold fauna around the reindeer.

The chronology shows that only the Chauvet cave has a megaloceros dated to 32,000 BP. All others, without exception, are Gravettian or Solutrean at the earliest: 31 from Style II–III, 18 from Style III–IV (including Chauvet) and none yet proved from Style IV. Animation is usually non-existent (27 cases) on unfinished figures, which are often without feet, but can be segmentary (15), coordinated (2) and complex (5). The reindeer is always from early Style IV (including Chauvet) and late Style IV; it appears everywhere between Würm III and IV, at the Solutrean/Magdalenian transition, or in the middle Magdalenian. The reindeer is depicted entire, and mostly with complex animation (60 cases), but also coordinated animation (32) and segmentary (41), as well as with no animation (31). It is present right to the end of the Magdalenian, replacing the megaloceros which had become scarce due to the climatic deterioration that was more favourable to the reindeer. The two species were probably contemporaneous in Spain, at La Lloseta (Asturias) where, in the absence of radiometric dates, one megaloceros and one reindeer are treated identically with the same infix (black for the megaloceros, red for the reindeer); and at La Pasiega (Cantabria), where one megaloceros and two reindeer in red ochre are ascribed to the same cultural period. So the megaloceros and reindeer have little chance of being contemporaneous at Chauvet. First, such cases are quite exceptional elsewhere (see above), because the reindeer appears on the wall when the megaloceros leaves it, and the graphic comparison (including animation) shows that the two are far removed in style. Second, the megaloceros that has been dated by AMS displays an animation which Leroi-Gourhan considers to be indicative of Style III, and which is so far totally unknown in the Aurignacian. Third, the absolute date of the megaloceros was obtained from a mixture of charcoal with clay from a stumping, with considerable power of contamination, and hence should be treated with great caution. Finally, the measurement of δ13C is incompatible with that from wood charcoal and in addition the Tandetron which carried out the calculations was subsequently disqualified.

Fig. 2. Rennes 1 et 2. (Chauvet Cave, 1996).

Why?

First, for the pleasure of the liberated hand that makes it possible to draw, a possibility that was acquired by the human brain and that is almost instinctive in children. Second, the search for parietal reliefs that bring forth figures like a birth through the wall. Third, the Upper Palaeolithic people put onto the cave-walls the animal world -- and to a more limited extent, the human world -- that was all around them, since they were living in what we would call an open-air zoo. It is certainly not writing before writing, nor is it simply decoration to embellish the rock surfaces, even if artistic feeling is clearly present, but rather memories or an account, perhaps of hunting, or dreams that came in their sleep. They depicted what was always in their sight. This same impression, arising from the same idiosyncracy, persists throughout the Upper Palaeolithic. These painters or engravers had developed the same mastery. The creative impulse was contained and emotion controlled. They dominated their subject in a realistic fashion, excluding any participation by the unconscious. The figures are always concrete, drawn according to a pre-established model, and in no

Fig. 3. Rennes 5-6-7. (Chauvet Cave, 1996).

way produced by shamanic trance. This frame of mind throughout the Upper Palaeolithic reminds us of that of a succession of later periods – Christianity, Palaeo-Christian art, the Byzantine church, Romanesque art, the Gothic cathedral, whether Chartres or the humblest church – in which the same mystery was commemorated and continues to be commemorated. The comparison is all the more justified because, in both cases, we are confronted with a mystery.

There remains the problem of handprints, vulvar depictions and abstract themes. For the first, this is a widespread phenomenon that is essentially Gravettian. One might see it as a way of taking possession of space, but also as a religious act because of the presence of infant hands. For the second, their designs at Chauvet are always triangular with a vulvar cleft, as they were always drawn from the early Solutrean onward, not circular or oval like in the Aurignacian rock shelters of the Vézère valley. For the third, the signs show an increasing complexity. The Panel of the Sacred Heart with its cross (Brunel chamber), the Panel of the Signs (Red Panel Gallery) with signs like a butterfly with stripes on its body, similar to examples at La Pileta in Andalucia, attributed to the Solutrean/Magdalenian, and the three sheaf-like signs (in the Megaloceros Gallery) are quite complex.

For whom?

The message was addressed to their contemporaries, either in very sequestered or secret places (like El Arco or gallery B in La Pasiega), or exposed to as many people as possible in extensive spaces (like Lascaux and Chauvet). We are now unable to understand this message with our civilized minds, but we can imagine their frame of mind thanks to the artistic legacy they have left us, which reflects a tranquil and surprising way of life without violence, whereas the conditions of their existence were particularly hazardous. Death was omnipresent from birth onwards, in an inhospitable climate. The term 'sanctuary' is usually applied to this underground world, and there is certainly something of that order, either private or public. It is certainly possible that the public spaces were illuminated by the flickering light of torches, and animated by songs and dances on the occasion of ceremonies. A notion of a religious sense emerges from the numerous caves that we have visited. Entering the underground world is always exciting and takes us back to our childhoods. Moreover, in several cases, it is children who discovered the caves. The bowels of the earth continue to exert the same fascination on people as they did in the Upper Palaeolithic, where they also served as artists' studios, as it were.

Fig. 4. Rennes 9. (Chauvet Cave, 1996).

Rock Art: When, Why and to Whom? The 'king' from Jubba (Saudi Arabia): a new interpretation

Elisabeth Monamy
MA, Archeologist, France.

The modern town of Jubba is located around 100 km north of Hail (northern province of Saudi Arabia) on the borders of the Nefud desert. The rock art panels are to be found at the archaeological site called Athanabit, which means erected stones. Here you will not find any volcanic hills as in Hail, but instead you will be confronted with limestone walls whose smooth parts are covered with engravings. They enjoy the protection of a kind of natural canopy, which slows down the assault of wind and rain. This site shows a lot of panels with different themes.

In this article I focus on the panel with the so-called 'king'. It is located in a kind of niche (figure 1). At first sight it seems to be a very simple panel, but we will see that the interpretation is not that obvious. It dates back to the early Neolithic period, which ranges from 7000 to 5000 BC.[1]

The panel consists of two persons facing each other. The right-hand person, probably a man identifiable due to a penis (?), is a little bit smaller than the left-hand one. He is shown from profile but both legs are depicted. He is quite thin, has long legs, a long upper body and a disproportionately small, flat head. The arm(s) can be interpreted as the tiny separated but parallel line next to the upper body. The left shoulder is particularly rounded. This could be explained as if he was carrying something on his shoulder, maybe a small bag, which would also explain why the arm(s) join(s) the upper body. But it could also be an irregularity in the wall. His head is like a right-angled triangle pointing towards the back.

The other person is a little taller and much chubbier. The legs are parallel, turned towards the first person, his upper body is facing the viewer and the head is again from profile. His left arm is bent down to the back and all the fingers are straight. His right arm

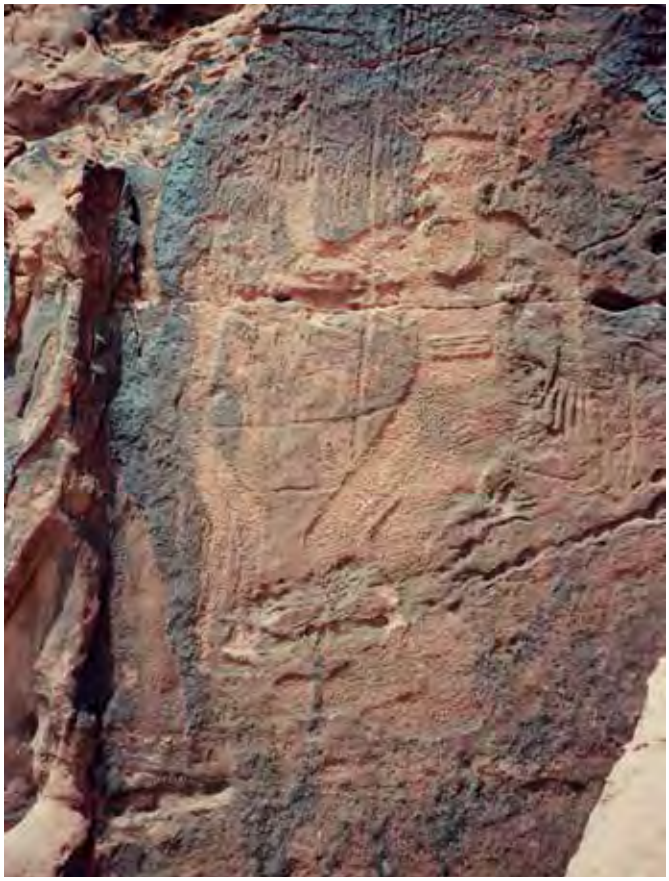


Fig. 1. Panel of the "King" of Jubba.

is bent upwards to the front, the hand with all the fingers straight is a little higher than his head. This hand and shoulder are thicker than the left side of the body. His head is like a square, and it seems that he is wearing a hat that ends at the back on the left shoulder. It is noteworthy that the eye and the chin have been treated in a special manner to make it look as if the person has an angry look. A long spear with an oval arrowhead is shown reaching from the left upper leg to over the head, passing behind the left arm. He is not holding the spear. Two details on the body of this man are still to be mentioned. The first detail is a circle made of two lines in the middle of his chest. It could represent a tribal sign on the cloth. And the other detail is around his waist. Three parallel lines could be a belt.

Now that we have described the panel we should try to find out what and who it represents. I propose three hypotheses.

Hypothesis 1: The right-hand person could be a king, as the name suggests. The king can be identified because of his special garments: an extraordinary belt and

1 Chronology based on Khan, M., 1993, Prehistoric Rock Art of Northern Saudi-Arabia, Ministry of Education, Department of Antiquities and Museums, Riyadh.

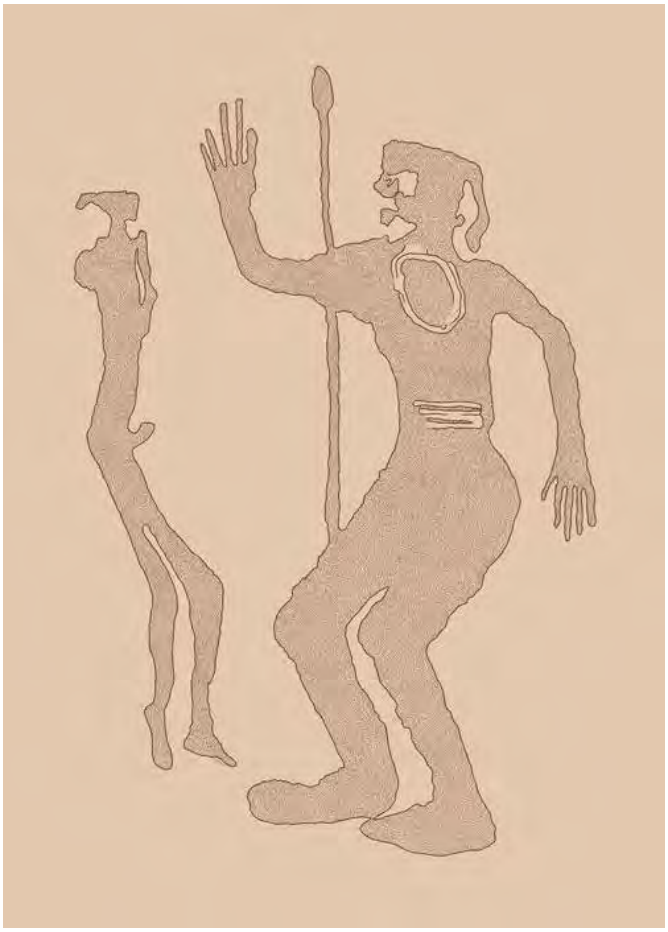


Fig. 2. Drawing of panel (www.saudi-archaeology.com 26.02.2015)

symbols on his chest. A further indication is the size of the person: the king is taller than his commander-in-chief, who stands in front of him. The king orders his commander-in-chief to gird himself for the battle and hands him the spear as a symbolic sign. And why was this scene depicted? Like every sovereign, this king wanted to eternalize this singular moment and had it engraved in this unique site to prove on the one hand that he is the king and in power and on the other hand in order to leave a testimony for posterity.

Hypothesis 2: The taller person is a king for the same arguments as hypothesis 1. The spear symbolizes the power of the king and is meant to be a decoration to point out the importance of the person next to it. This time the king is not standing in front of his commander-in-chief but in front of a dignitary. As described earlier, the head of the left-hand person is different. Therefore it seems to be a foreign dignitary who brings tribute, which would explain the bag over the shoulder.[2] Again, this scene was engraved to show the power of the king and to eternalize his power over other nations.

Hypothesis 3: As in hypothesis 2, both persons belong to different nations. Their garments would support this theory. The smaller person (on the left) may have a bag over his shoulder but not to bring tribute as in hypothesis 2 but rather to hold a weapon, like a quiver, for example. The right man has a spear, looking angry and overconfident as he puts his weapon next to him. He also seems to try to intimidate his opponent by waving his arms. They could be heroes chosen to fight a battle in the name of their nations, without bloodshed, like the famous battle of David against Goliath; their different weapons and sizes would emphasize this theory. Because of the importance of this battle, the two heroes were engraved facing each other just before or at the beginning of the battle. How it ended stays a mystery, but this battle was worth mentioning and keeping in memory for the posterity of both nations.

To sum up, I believe that this panel is not that obviously the representation of a king as the name would suggest, as shown in hypothesis 3. Due to its very good conservation, the interpretation of this panel is open to imagination as no other indications, such as writing or material finds, help define its meaning more precisely. To my knowledge, no other similar scene in the region is known. The site presents other representations of humans on different panels, but mostly men and women together. The exceptional location of this panel would suggest that it had a meaning out of the ordinary, and it was in the angle of vision of all visitors to this site, whoever they were.

2 In comparison with foreign peoples bringing tribute to Assyrian kings, for example.

Rock art of the Vedda people of Srilanka: when, why and to whom?

Bilinda Devage Nandadeva
PhD, Department of Fine Arts, University of Kelaniya, Kelaniya, Sri Lanka.

Introduction

The study of rock paintings and engravings of non-literate or pre-literate peoples of Sri Lanka is perhaps the youngest addition to the body of knowledge of the island's art history that had been dominated by the study of mainstream Buddhist art for more than 150 years. Although recording of chance discoveries of rock art sites began in 1897 (Bell, 1904), following the publication of three preliminary papers on Sri Lankan rock art by Nandadeva (1986; 1992; 1996), researchers began to pay serious attention to the subject. Today, the study of Sri Lankan rock art has become a popular endeavour, especially among young researchers, and the subject has entered into course syllabi of archaeology degree programmes of most of Sri Lankan universities. In the past ten years numerous articles have been published in popular magazines and journals (in the Sinhala language) by young researchers and a major study for the international readership has been made by R. Somadeva (2012), a well-known archaeologist.

Nearly 60 rock art sites in Sri Lanka have been reported to this date. Those are mostly rock shelter sites with paintings, and there are less than five sites with engravings. The majority of painting sites are located in the eastern and south-eastern part of the island, ecologically identified as mostly the dry lowland zone. Interestingly, the engraved sites are located in the south-western border area of the central hills, ecologically identified as a wet-upland-lowland interface.

The majority of painted rock shelter sites contain drip-ledges cut into the rock along the shelter's roof, and donors' inscriptions in the Brahmi script, sure signs of Buddhist monastic occupation of the shelter in the early historical period (c. 3rd century BC to 1st century AD). Two engraving sites known as Budugala and Navgala are open-air sites made of boulders. Dorawaka, another engraving site, is made of two large inclined slabs of rock resting partly on each other. No paintings or engravings have been reported from deep underground caves so far.

Subjects commonly found are images of humans, animals, utensils and abstract designs. Elephants, leopards, deer or stag, monkeys and dogs are among the favorite subjects. The bow and arrow and the hide-container known as *hangotuva* or *maludema*, a vessel made of deer's hide to collect bees' honey, are recurring motifs. Abstract designs are often made of linear or circular designs and dots. In an exceptional case, only one site known as the Magulmahavihara cave yields handprints (Somadeva, 2012: 157–62).

White and grey seem to have been the commonly used colours, made of kaolin and ash. Additionally, red or reddish brown, probably derived from red ochre, has been used somewhat rarely. Seligmann and Seligmann (1911: 319) have reported a claim made by some cave-dwelling hunter-gatherers whom they interviewed during field work in Sri Lanka in 1906–09 that they made pictures on the walls of their caves using a paint made of ash and saliva applied using a finger as a brush.

Fig. 1. Engravings at Doravakakanda showing an elephant and a calf. (Photo Credits: Somadeva, R. 2012: p. 120).

When?

There is a general consensus among scholars that the majority of rock paintings are the works of the ancestors

of present-day Vedda people (Seligmann, Seligmann, 1911; Bandaranayake, Jayasinghe, 1986; Nandadeva, 1986; 1992; 1996; Somadeva, 2012). One Vedda tribal chief named Handuna, interviewed by the Seligmanns (1911: 319), related his recollections of two paintings at Pihilegodagalge being painted by his grandfather who was then leader of the tribe. However, the same authors claim that the paintings in Vedda rock shelters were usually done by women (Seligmann, Seligmann 1911: 318).

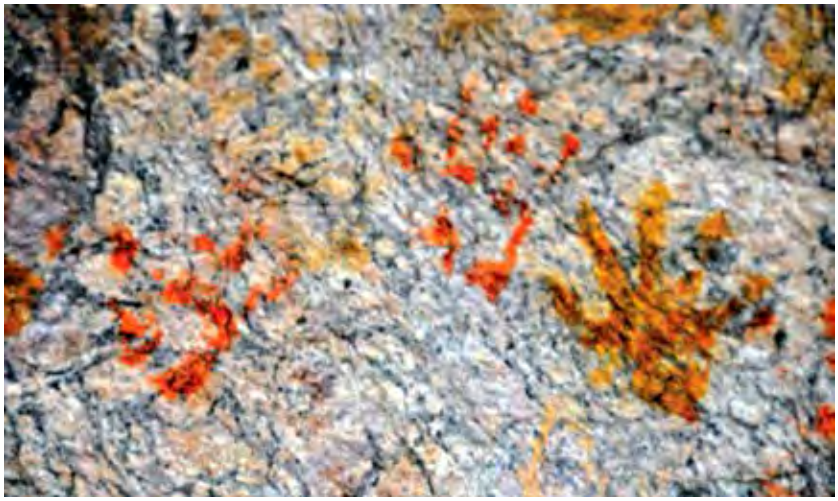


Fig. 2. Hand prints at Magulmahavihara cave. (Photo Credits: Somadeva, R. 2012: p. 19).

The Vedda people descend from the Stone Age native inhabitants of Sri Lanka who subsisted on hunting and gathering (Sarasin, 1926; Allchin, 1958; Kennedy, 1965; 1972; Deraniyagala, 1992). Until about the early 20th century, they mostly lived in rock shelters in jungles, and maintained very limited interactions with the mainstream society of the Sinhalese and the Tamils in neighbouring villages, bartering with the latter their exploited forest resources such as bees' honey, dried meat, and medicinal herbs for salt, clothes and iron tools. However, due to acculturation and assimilation with mainstream society, and the depletion of forest areas due to development during the past several decades, their subsistence methods have greatly changed, into partial hunting-gathering and shifting cultivation.

The Vedda people of the dry lowland zone of the eastern and south-eastern parts of Sri Lanka, where most of the painted rock shelters are scattered, probably had a peaceful period of nearly 400 years with no outside interference from mainstream 'civilized' Sinhala and Tamil people since the alleged desertion of this part of the island in the 15th century, during which time the entire area remained under thick forest cover. This allowed the Vedda to inhabit the rock shelters that had been previously occupied by forest-dwelling Buddhist monks during the early historical period. As mentioned above, the presence of drip-ledges cut into the rock along the shelter's roof, donors' inscriptions in the Brahmi script at a Vedda rock art site and other archaeological evidence of monastic occupation are clear indications that the paintings are dated to after the 15th century.

Those who donated rock shelters to Buddhist monks in the early historical period had to strictly adhere to a set of well-established guidelines for the preparation of those shelters. The process included the chipping off of the decayed surface layer of the roof, cleaning the entire wall and the ceiling using water, and whitewashing the interior using lime. If there were rock paintings of the Vedda or any other non-literate community predated to the monastic occupation of the rock shelters, there would be hardly any chance that they would survive such a thorough preparatory process (Nandadeva, 1986; 1992; 1996). This hypothesis does not exclude the possibility of a rock painting to be older than that date if it occurs at a rock shelter that has never been a monastic site.

The engravings at Dorawakakanda, Hakbelikanda and Urakanda could be much older than the rock paintings of other sites, as archaeological excavations at those three sites have yielded clear evidence of prehistoric occupation (Wijepala, 1997). Although the Vedda are known to be the descendants of those Stone Age people, there is hardly any stylistic similarity between the paintings and the engravings. The engravings at Budugala that contain two images of lions are unique, as the beast does not live in Sri Lanka. Also, the presence of a trident and swastika at the same site suggests that the engravings were probably done by early migrants from India.

A word of precaution is that it has been a common practice that people of mainstream culture from neighbouring villages used to visit the jungles to hunt animals or collect forest resources such as medicinal plants or bees' honey. During such visits that may

last a few days, they used to stay in rock shelters abandoned by the Vedda people. It is always possible that those people would paint similar images for ritual or other purposes. This hypothesis is supported by the observations of Seligmann and Seligmann (1911: 318) who noted the 'frequent occurrence of rough drawings and scribblings made by Tamil gall-nut [Bot. *Terminalia chebula*] collectors in some of the rock shelters sometimes used by the *Henebedda Veddas*. The *Veddas* obviously had nothing to do with these [paintings]' .

Why?

Scholars often find various forms of ritual or magical associations in rock paintings in many parts of the world. Interestingly, Seligmann and Seligmann (1911: 318) appear to have been disappointed, as they felt 'confident that no magical import attaches to these [Vedda] pictures' after some Vedda women claimed that 'they did them [the paintings] when they were waiting for the men to return from hunting apparently merely to amuse themselves.' Furthermore, on the request of the two researchers, Vedda women also drew a few images of men, women, crocodiles and dogs on paper.

The writer considers this as a unique and invaluable piece of ethnographic information, as women's engagement in art making in non-literate societies is so rare the world over, and as the amusement purpose of such art is uncommon in non-literate societies too. This perhaps indicates the gender-based division of labour among the Vedda people, that is, hunting being a man's job, and waiting for men to return home and attending to domestic matters being a woman's responsibility. It also shows that women enjoyed the freedom of making paintings and also amusing themselves by doing such paintings, unlike in many such societies around the globe where image-making is a male prerogative, and that the images thus made are not intended for mere fun-making, but are often associated with religious, ritualistic, shamanistic or healing purposes.

Even though Seligmann and Seligmann (1911: 318) deny any magical importance to Vedda paintings, one of the painted panels from Pihilegodagalge they have reproduced represents 'a group of men and women surrounding a man who holds a bow above his head'. There is a great possibility that this may be a representation of one of the ritualistic dances of the Vedda people practised even today, where a leading dancer holds a bow above his head and is surrounded by other males dancing in a circle. This hypothesis still leaves a question about the participation of women in ritualistic dances, or the accuracy of the interpretation of the painted panel provided by the Vedda to the two foreign researchers.

Fig. 3. Images of elephants and humans at Vettambugala cave, popularly believed to be a scene representing elephant hunting. (Photo Credits: Somadeva, R. 2012: p. 47).

P.E.P. Deraniyagala (1955: 112) believes that some of the paintings, possibly those representing elephants, indicate a part of a magical evocation or a ritual related to the hunting of elephants. This hypothesis is based on his observation of the paucity of elephant skeletal remains in rock shelter deposits and on the assumption that the Vedda people used to kill elephant for food. It is not possible to substantiate the hypothesis as there could be other reasons for the paucity of elephant skeletal remains in rock shelter deposits, and second, his assumption is not supported by Vedda ethnography either. Furthermore, it is hard to imagine whether the Vedda would ever be able to kill an elephant using such weapons as bows and arrows

Fig. 4. Images showing either humans riding on elephants, or close association between humans and animals at Hulanuge. (Photo Credits: Somadeva, R. 2012: p. 52).

and axes, whereas it is much more practical to eat, if one really needs to do so, the meat of an elephant that has died of natural causes.

An interesting phenomenon found in Vedda rock paintings is the necessity to show the gender difference without depicting sexual organs. Instead, as Seligmann and Seligmann (1911: 319) describe, 'lines pointing upwards were drawn from the heads of women to show their hair was tied in a knot', a distinction the two researchers found very difficult to understand. While this may be due to a social taboo about showing sexual organs, or due to sheer shyness, the acceptance of the relevance and significance in accommodating women as a subject worthy of a painting, awareness of showing gender differences, and portraying it in an innovative manner in a non-literate cultural milieu are very significant matters. (It may be useful to mention that human figures with lines radiating out of their head have been misinterpreted by certain writers as representations of the sun's disc connected with the sun's divinity (Harrigan, 1993)) .

The rarity of hunting scenes and the abundance of scenes of humans and animals intermingling with each other is one of the most fascinating aspects of Vedda paintings. Emphasizing the need to view such images within the total configuration of the basic subsistence pattern of the Vedda people, Asher (1961) suggests the free intermingling of people and animals as 'highlighting the interdependence and dependence of people and animals within a food gathering society'. His hypothesis challenges the popular image of people of non-literate societies as great hunters and meat eaters, and the tendency to associate the art with rituals or other magic to enhance hunting endeavours.

To whom?

The precise purpose of Vedda paintings and the audience or the receivers of such art are difficult to be determined due to a lack of ethnography pertaining to their art practices that is confined only to the work of Seligmann and Seligmann (1911). However, the information given to the two researchers by Vedda women that they did the paintings to amuse themselves while waiting for their men to return from hunting as mentioned above, if true, suggests that at least some of the Vedda paintings had the purpose of self-gratification for the painter and the community. If amusement through an image can be considered as a higher-level aesthetic experience, Vedda paintings can be named as a good example of art for art's sake in a non-literate society. Second, the paintings have also served as a tool for visual communication that the artists used to share their amusement with other members of the community.

The two paintings depicting 'the white man [wearing a hat] on horseback' from Pihilegodagalge, photographed and reported by Seligmann and Seligmann (1911: 318), are an example to illustrate the desire of the Vedda artists to contemplate their own experiences and to share the same with others. The artist of the two paintings painted his experience of seeing something that he probably has never seen or imagined in life, an Englishman (who was the district judge for that region) wearing a hat and riding on horseback arriving at the court of law, when the artist who was also a Vedda tribal chief, was called to give evidence in a trial for a murder that had taken place in the Vedda community. His decision to paint the

subject that fascinated him most twice on the rock wall on his return to the cave shows his need to reflect on his own fascination and share it with his community.

The recurrence of the motif of *hangotuva*, the deer-skin vessel used for collecting bees' honey, is a significant phenomenon. Although bees' honey was an important forest resource that the Vedda exploited for food and for bartering with mainstream Sinhala or Tamil communities in neighbouring villages, *hangotuva* would have been a very common utensil with no special ritual or symbolic value attached to make it a subject for pictorial art. Therefore, the possible reason for its recurrent presence in art deserves further inquiry.

It is possible that the *hangotuva* the Vedda artists painted on the cave wall could be not the vessel used to collect the honey of the ordinary bees, but that of the bumble bee, another forest food resource that the Vedda had a reputation for collecting despite the great dangers involved in doing so. According to Vedda ethnography, cutting the bumble bees' nests, which often occur on very high rock cliffs, was done after performing certain rituals to propitiate ancestral spirits, to protect the honey collector who sits on a swing made of ropes made of jungle creepers that is suspended from the summit of the rock, with the *hangotuva* tied to his waist.

Propitiatory rituals were considered absolutely necessary for this feat as the risk to the life of the collector was so high. It is therefore possible to surmise that the *hangotuva* motifs painted on the rock walls are probably connected with those rituals. If this hypothesis is plausible, one can see the connection between the art, religious beliefs in ancestral spirits and the subsistence systems of the Vedda people of Sri Lanka.

References

Alchin, B.

1958 The late-stone age of Ceylon, in *Journal of the Royal Anthropological Institute* 88(2), pp. 179-201.

Asher, R.

1961 Function and prehistoric art, in *Man*, 84.

Bandaranayake, S.; Jayasinghe G.

1986 *The Rock and Wall Paintings of Sri Lanka*, Colombo (Lake House Book Shop).

Bell, H.C.P.

1904 *Annual Report for the Archaeological Survey of Ceylon for 1897*, Colombo.

Deraniyagala [Sr.], P.E.P.

1955 The Human and animal motifs in Sinhalese art, in *Journal of the Royal Asiatic Society (Ceylon)* 4(1), pp. 1-34.

Deraniyagala [Jr.], S.

1992 *Prehistory of Sri Lanka: an ecological perspective*, Colombo (Archaeological Survey Department).

Harrigan, P.

1993 *SOBA Journal* – September (reproduced in http://vedda.org/cave_drawings.htm), Accessed 28 February 2015.

Kennedy, K.A.R.

1965 Human skeletal material from Ceylon, with an analysis of population, in *Bulletin of the British Museum* 2(4).

1972 The concept of the Vedda phenotypic pattern: a critical analysis of research on the osteological collection of a remnant population, in *Spolia Zeylanica*, 32, pp. 25-60.

Nandadeva, B.D.

1996 An Introduction to Rock Art of Sri Lanka, in *Kalyani*, Journal of the Humanities and Social Sciences, University of Kelaniya, 1988 vol. vii and viii, pp. 157-164.

1992 Rock Art of Sri Lanka, in Lorblanchet, M. (ed.) *Rock Art of the Old World*, Papers presented to the Symposium A of the AURA Congress, Darwin (Australia) 1988, New Delhi (Indira Gandhi Centre for the Arts), pp. 337–48.

1986 Rock Art Sites of Sri Lanka: a Catalogue, in *Ancient Ceylon* 6, pp. 173-209.

Sarasin, F.

1926 Stone age of Ceylon, in *Nature* 117 (2496), p. 567.

Seligmann, C.G.; Seligmann B.Z.

1911 *The Veddas*, Cambridge (Cambridge University Press).

Somadeva, R.

2012 *Rock Painting and Engraving Sites of Sri Lanka*, Colombo (Postgraduate Institute of Archaeology).

Wijepala, W.H.

1997 *New light on the prehistory of Sri Lanka in the context of recent investigations at cave sites*. Unpublished PhD thesis, University of Peradeniya (Sri Lanka).

Rock art: when, why and to whom? Rock Art of Omandumba Farm on Erongo Mountain, Namibia

Alma Nankela
PhD, Rock Art Archaeologist at National Heritage Council of Namibia, Namibia.

Introduction

Decades of extensive rock art research backed by a handful of approaches and interpretations in southern African rock art (Lewis-Williams, 1980–83; Culson, Campbell, 2001; Lewis-Williams, Dowson, 1989; Smith, 1995; Smith, Ouzman, 2004) led to the identification of three major rock art traditions, namely the Stone Age hunter-gatherers (San foragers), Stone Age herders (Khoekhoen herders) and the Iron Age agriculturalists (Bantu-speaking communities with a distinct regional style, content and cross-cutting tradition that varies in techniques of art production). Although the research is extensive, there is still little or no direct link between the 19th- and 20th-century ethnography and the rock art, given the fact that the art's original authors in many other southern African countries no longer exist. Furthermore, most of the ethnographical records have been harvested from regions where there is little or no rock art, while some of the well-known rock art sites are from areas where

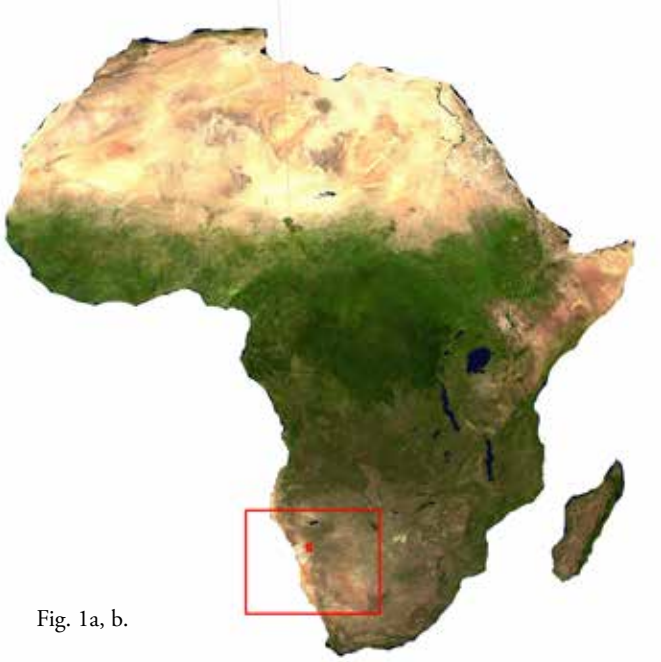
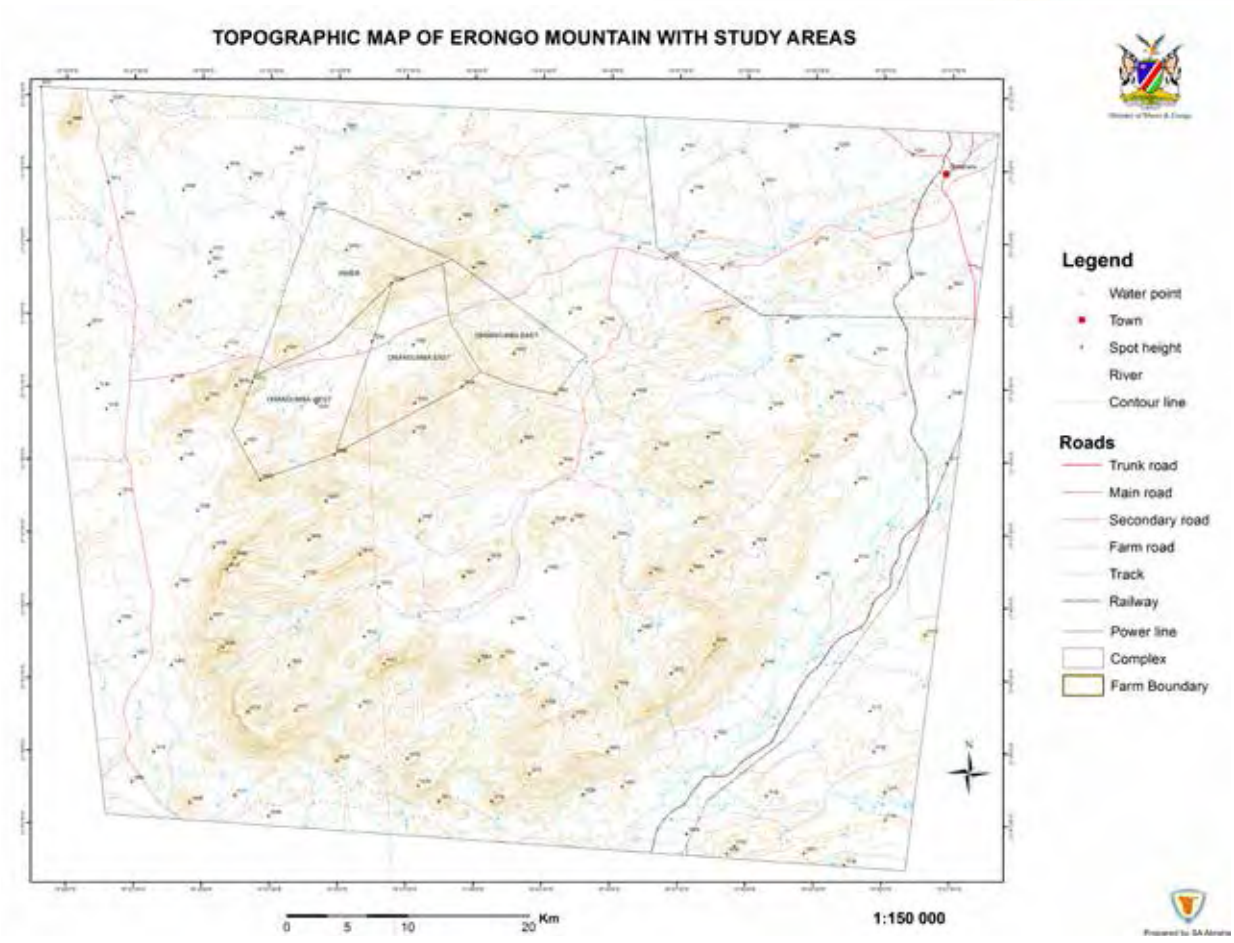


Fig. 1a, b.



little or no ethnography was recorded before the disappearance of hunter-gatherers. It has therefore been difficult for the non-rock art-producing audience outside the authors' cultures and world to accurately interpret the art or even understand their true meanings, their cosmologies and the motivation behind their creation. Nevertheless, the 19th- to 21st-centuries ethnographical research on indigenous hunter-gatherers' rock art in southern Africa demonstrated by Lewis-Williams (Lewis-Williams 1980; 1981; 1982; 1983; 1990; Lewis-Williams, Dowson, 1989) as well as the ethnographical research with integrated evidence from archaeological excavations, rock art, linguistics and the general genetic account of Khoekhoen origins and movements in southern Africa (Sealey, Yates, 1994; Vogel *et al.*, 1997; Sadr, 1998; Ouzman, 2004) have provided a general explanatory approach to rock art traditions in Namibia (Kinahan, 1999; 2001a; 2004; 2011; Van Hoek, 2003; Pleurdeau *et al.*, 2012; Breunig, 2003; Lennsen-Erz, 2007; 2010; Richter *et al.*, 2008; Ouzman, 2007; Gwasira, 2011; Wendt, 1976). The Erongo Mountain and its adjacent areas in Namibia form one of the key prehistoric rock art sites (paintings and engravings) in the Erongo region. The present study is primarily based on the ongoing rock art research in Omandumba Farms. Here, I illuminate the state of affairs pertinent to the three queries in the title of the paper.

Fig. 2.

Site settings

Located within a transitional zone between the low-lying Namib Desert, central highland plateau and Mopane woodland on the northwestern slope of the Erongo Mountain about 45 km west of Omaruru[1] is the Omandumba East and West Farm (figure 1) in the Erongo region. This domed granitic inselberg is Namibia's third-highest mountain after the Brandberg Mountain and Khomas highlands and forms one of the key archaeological records in Erongo areas after the Daureb/Brandberg and Spitzkoppe Mountain, spanning from the early Middle Pleistocene to the Late Stone Age occupations that attracted research (Breuil, 1960; Viereck *et al.*, 1969; Scherz, 1970; 1975; Hollman *et al.*, 2003; Breunig, 2003; Kinahan, 1990; 201; Pleurdeau, *et al.*, 2012; Böerner, 2013). Owing to its unusual configuration, this inselberg attracted prehistoric dwellers who left a large collection of prehistoric rock art (both paintings and engravings) that today constitutes authentic prehistoric inhabitants of Namibia. With a diameter of approximately 35–40 km, the Erongo granitic dome complex rises 2,350 m above the profoundly weathered Damara metasediments of northwestern Namibia (Huser, 1977; Blumel *et al.*, 1979). Erongo Mountain is entirely a granitic intrusion with a concentration of extrusive sequence layers of basaltic rocks resulting from past volcanic activities forming the core of the complex created about 124–137 million years ago out of the continental rifting that eventually led to the separation of South America and Africa (Emmermann, 1979; Pirajno, 1990).

When, why and to whom? A synopsis

In Namibia, the significant rock art production has been recoded within the Later Stone Age culture, when the interior of southern Africa experienced extremely dry arid conditions that promoted nomadism and possibly intensified ritual-making activities among the hunter-gatherer communities, resulting in extensive production of both paintings and engravings

1 Omaruru is the nearest urban centre.

Fig. 3a.

attributed to the hunter-gatherer rock art traditions. However, the earliest record of rock art has also been seen in the Middle Stone Age of Namibia, with the discovery of Africa's oldest figurative rock painting is of Apollo 11 'art mobilier' (a therianthropic figure) recovered from the Middle Stone Age culture associated with charcoal radiocarbon dates from 26,000–30,000 years (Wendt, 1976; Vogelsang *et al.*, 2010). The last 4,000 years certainly saw an intense production of rock art figures in Namibia (Kinahan, 1990; Richter, 1993; Breunig, 2003; Lenssen-Erz, 2007), to which the rock art of Omandumba Farms largely contributed. The archaeological excavations of some of the sites on the Erongo Mountain, including Omandumba Farms (Breuil, 1957; Martin *et al.*, 1954; Viereck *et al.*, 1989; Pleurdeau *et al.*, 2012) have provided general accounts of the occupations of the Late Stone Age hunter-gatherer and possibly herder societies on Erongo Mountain. The hunter-gatherer technology was the production of rock art, as manifested in the rock art widely distributed in Erongo region, with a lifestyle of foraging. Their way of living generally encompassed hunting, gathering and a high level of flexible mobility both within and between other areas, as observed in the Erongo region. Of course, there are several reasons for mobility, like the search for food and water, ceremonies, trade and exchange, warfare, communications where tangible and intangible traditions are shared and transmitted or where mythological concepts and religious rituals are adopted. This is indeed a pragmatic process, which undergoes gradual changes due to a number of factors, such as social structure, ecology and the organization of economic and political resources, group size and the distribution of kinship and ancestral affinity. The traditional Late Stone Age technology and hunter-gatherer lifestyles were probably retained until the period of herders and nomadic pastoralists began (Lenssen-Erz *et al.*, 2005; Kinahan, 1996), resulting either in conflict and competition with resources or tranquil coexistence, with each group concentrating on their lifestyles and technology. The herding technologies and lifestyle have been recorded in the excavated layers of Leopard Cave in Omandumba Farm, containing pottery in association with early caprine remains dating roughly +/-2296–2155 BP (Pleurdeau *et al.*, 2012). Such evidence however, does not show that both coexisted together or one group occupied a site previously occupied by the hunter-gatherer groups, as there is no direct link with the art production due to the absence of herder rock-art traditions in Omandumba Farms. The hunter-gatherer groups who had occupied this area had an immense knowledge of the land, as manifested in the rock art, which was dominated by anthropomorphic figures expressing wide varieties of hunter-gatherer sociopolitical lifestyles and including a wide variety of zoomorphic figures that are a compendium of local fauna, consisting of small and large antelopes such as springbok (*Antidorcas marsupialis*), oryx (*Oryx gazelle*), hartebeest (*Alcelaphus buselaphus*), kudu (*Tragelaphus strepsiceros*) and klipspringer (*Oreotragus*), and mega fauna such as rhinoceros (*Diceros bicornis*), giraffe (*Giraffa camelopardalis*), elephant (*Loxodonta africana)* and some felines (figure 2).

Despite extensive research into the rock art of southern Africa, questions such as who made the art, what did it intend to covey and what was its motivation and its content remain some of the critical inquiries in rock art research. In order to answer these questions,

one needs to tap into the ethnographic information, for instance, the present-day descendants of southern African hunter-gatherer societies, as postulated by researchers such as (Lewis-Williams, 1981; 1982; 1996; Lee, 1979) who revealed the meaning of the rock art to be associated with the cognitive tradition, where the metaphorical potency of certain animal figures was harnessed for the purposes of ritual healing/cleansing or rain-making as the medium of communication with the spirit world. However, detailed examination of rock paintings and engravings in Omandumba Farms shows that the hunter-gatherers' art was made for various reasons; the meanings can be divided into three important symbolic categories, beyond the figures themselves, as proposed by (Lewis-Williams, 1996: 12–62): the obvious aesthetic approach, the narrative approach and the interpretative approach. The aesthetic approach reveals how certain animals caught the artists' attention, because they were created in very striking details with a naturalist appeal where the artist used perspective and was somehow inspired by the environment in which the animals probably lived, as landscape attributes were incorporated in the scene, like the massive fully painted giraffe figure at the Torchbearer site in Omandumba West Farm (figure 3a), which were painted in a very realistic manner, incorporating the landscape character in the scene. It is one of the most beautiful, well-illustrated and astonishing paintings in Omandumba Farms. The narrative approach to this painting and the scenes at the Torchbearer site, for instance, provides the access to the daily life, traditions and customs of the group of the artist. It is possible that such a large animal was hunted, or maybe its existence in the environment points to the presence of reliable water and food in the area where it was found. Human figures such as the women engaged in social activities, like collecting thatching grasses to build temporary shelters, and men depicted carrying bow and arrows, baskets or quivers, form most probably a narrative of the daily life, customs and traditional way of life of a typical hunter-gatherer society (figures 3a, 3b). In association with other scenes at the site, it shows that indeed men were hunters, shown carrying hunting equipment, while women gathered and built their temporary shelters as shown in the paintings. However, a deep examination of the hunter-gatherers' religion (interpretative approach), shows that there is a deep pattern of symbolism in the hunter-gatherer art, which requires critical examination and knowledge of the hunter-gatherer culture, customs and religious beliefs. The high concentrations of rock art sites in Omandumba Farms indicates an intensified ritual activity in response to the social ecological crises arising from limited food and water resources experienced during the period of the art's production, hence the depictions of figures related to rain-making rituals that helped to strengthen not only the values and cohesion of the group but also to ensure successful hunting and heal the sick in the groups. Furthermore, clear features of the rock art of Omandumba Farms show integration with the surroundings. The incorporation of landscape features such as vegetation, clouds and rocks shows that they understood the local environment pretty well. Some artworks were placed in deliberate locations of significance, that is, the priest's shelter on a hilltop with restricted access, away from probable communal living spaces, where the powerful

Fig. 3b.

shaman performed his rituals, as well as the engravings site which holds multiple meanings, although difficult to establish directly. The presence of human footprints dominated by large animal tracks or spoors, that is of antelopes, giraffe, elephant, etc. (figures 4a, 4b) shows deliberate placement of the art near and in the water flow as well as in sometimes inaccessible vertical areas, perhaps to indicate either paths and the entrance into the spirit world or to indicate that the art might have been produced during the drought period, when the shortage of water and food forced people to congregate near the river bed – hence intense rock art production.

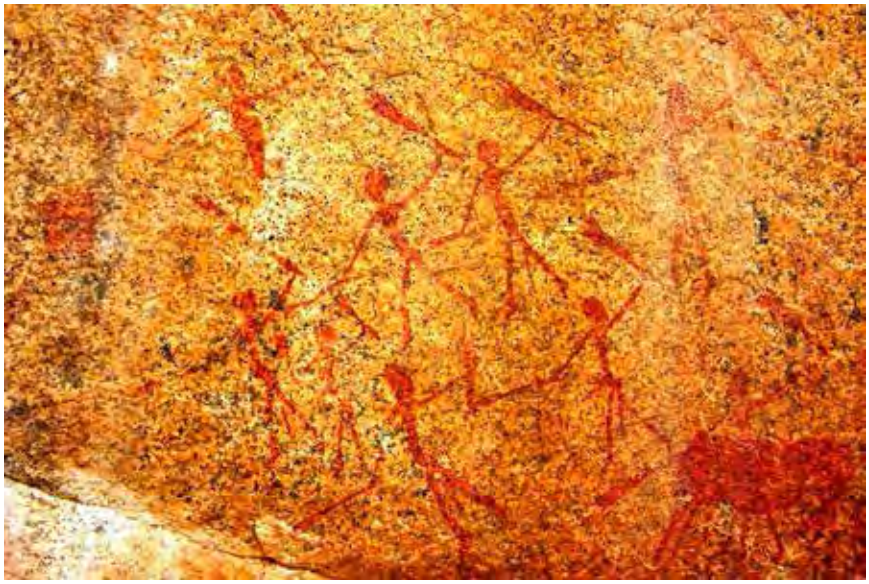


Fig. 3c.

Despite being a huge challenge to interpret, the rock art of Omandumba Farms is still the most evocative of the entire heritage in Namibia left for us by our ancestors. Being one of the most widespread cultural manifestations of humankind, these masterpieces constitute one of the very basic expressions of human culture and a key element of its cultural heritage. They manifest human conceptual thought, revealing the beliefs of the society that produced them and left behind these puzzling testimonials to their lifeways and the thought process of people. So they remain a unique window into the early human mind, and the way in which both humans and non-human animals engage with the world together. They remain one of the most important categories of material culture of human history. The rock art in Omandumba Farms has a wide spectrum of interpretations, ranging from seeing rock art as various expressions and manifestations of religious rituals to more socially oriented aspects of communication in society, and their messages can still be decoded today, hence their legal protection by the National Heritage Act no. 24 of 2007 of the Namibia's National Heritage council. Today, rock art sites in Omandumba Farm still have a tremendous cultural significance for the descendants of the original artists, who set up a Living Museum in Omandumba Farms to help fight poverty among the descendants of the artists, preserve the traditional cultures and create cultural and intellectual exchanges with tourists and researchers like me. So the sites are of great educational and scientific value.

The rock art of hunter-gatherers is associated with the belief systems of the artists and perhaps their intended audiences, who were Late Stone Age hunter-gatherers at the time when it was produced. The shamans probably carried out important tasks while in natural realms with their gods or ancestors such as healing the sick, restoring faith in the community, bringing hope to the people by delivering successful hunting and rain-making rituals.

Conclusion

The Late Stone Age hunter-gatherers' rock art was certainly an expression of their communities' cosmology, religion and sociopolitical and economic lifestyles. The natural environment evidently played a significant part in the hunter-gatherer art, where spatial understanding appears to have influenced not only the composition but also the metaphysical and physical realm of the shaman. By making inferences from the ethnography records among southern African hunter-gatherer communities, it is possible to arrive at a more comprehensive explanation for the remarkable number of rock paintings in the Omandumba Farms and their concentration at particular sites.

References

Breuil, H.

1957 Philipp Cave, *The Rock Paintings of Southern Africa* 2, London (Abbe Breuil Publications).

1960 Anibib and Omandumba and Other Erongo Sites: The Rock Paintings of Southern Africa, Vol. 4, Calouste Gulbenkian Foundation.
Breunig, P.
1986 Archaeological Research in the Upper Brandberg, *Nyame Akuma* 27, pp. 26-27.
2003 Der Brandberg. Untersuchungen zur Besiedlungsgeschichte eines Hochgebirges in Namibia, *Africa Prehistorica*, 17.
Conrad, J.; Breunig, P.; Gonska, H.; Marinetti, G.
1998 The feasibility of dating rock paintings from Brandberg, Namibia with 14C, *Journal of Archaeological Science* 15, pp. 463-466.
Cluson, D.; Campbell, A.
2001 *Paintings and Engravings on Stone*, New York (Harry N. Abrams).
Emmermann, R.
1979 Aufbau und Entstehung des Erongo-Komplexes, in Blümel, W.D.; Emmermann, R.; Hüser, K. (eds.), *Der Erongo. Geowissenschaftliche Beschreibung und Deutung eines südwestafrikanischen Vulkankomplexes*, Windhoek: Southwest African Scientific Society 16, pp. 16-53.
Hollmann, J.; Steyn, W.
2003 *A report on the rock paintings in the Erongo Mountains, Erongo Region*. Karibib, Omaruru District, Namibia.
Gwasira, G.
2011 *A rare combination of engravings and paintings in the Dome gorge*, Daureb/Brandberg, Cologne (CASC).
Ingold, T.
1987 The Appropriation of Nature, Iowa City (Univ. Iowa Press Namibia and Botswana), see Ref. 17, pp. 37-46.
Lee, R. DeVore, I.
1968 Problems in the study of hunter-gatherers, in Lee R.; DeVore I. (eds.), *Man the Hunter*, Chicago (Aldine), pp. 7-14.
Lee, R.B., Daly, R. (eds.)
1999a *The Cambridge Encyclopedia of Hunters and Gatherers*, Cambridge (Cambridge University Press).
1999b Introduction: Foragers and Others, in *The Cambridge Encyclopedia of Hunters and Gatherers*, Lee, R.B., Daly, R. (eds.), Cambridge (Cambridge University Press), pp. 1-19.
Lewis-Williams, J.D.
1981 *Believing and seeing*, London (Academic Press).
1983 *The rock art of Southern Africa*, Cambridge (Cambridge University Press).
1990 *Discovering Southern African rock art*, Cape Town (David Philip).
Lewis-Williams, J.D.; Challis, S.
2011 *Deciphering ancient minds: the mystery of San Bushmen rock art*, London (Thames & Hudson).
Lewis-Williams, J.D; Dowson, T.
1989 *Images of power: understanding Bushman rock art*, Johannesburg (Southern Book Publishers).
Kinahan, J.
1989 *Pastoral nomads of the Central Namib Desert*, PhD thesis, University of Witwatersrand.
1990 Four thousand years at the Spitzkoppe: change in settlement and landuse on the edge of the Namib Desert, *Cimbebasia* 12, pp. 1-4.
2011 From the Beginning: The archaeological evidence, in Wallace, M. (with Kinahan J.) (ed.), A History of Namibia: From the Beginning to 1990, New York (Columbia University Press), pp. 15–44.
Lenssen-Erz, T.
1997 Metaphors of Intactness of Environments of Rock Art Paintings of Namibia, in Faulstich, P. (ed.), *Rock-art as visual ecology*, Tucson, AZ (American), pp. 43-54.
2004 *Landscape Setting of rock-painting sites in the Brandberg (Namibia): Infrastructure, Gestaltung, use and meaning*, Cambridge (Cambridge University Press).
2007 The atlas of cultural and environmental change in arid Africa, *Africa prehistorica* 21.
Pleurdeau, D.; Imalwa, E.; Detroit, F.; Lesur, J.; **Veldman, A., et al.**
2012 Of Sheep and Leopard Cave (Erongo, Namibia), *PLoS ONE 7(7): e40340. Doi: 10.1371/ journal.*
Sandelowsky, B.; Viereck, A.
1969 Supplementary Report on the Archaeological Expedition of 1962 to Erongo Mountains of South West Africa, *Cimbebasia* B 1, pp. 1-43.
Wendt, W.E.
1976 "Art Mobilier" from the Apollo 11 cave, South West Africa: Africa's oldest dated works of art, *South African Archaeological Bulletin* 31, pp. 5-11.

Secret signs: mechanisms behind the construction of later prehistoric rock art in western Britain

George Nash
Associate Professor at Centre of Geosciences, Museum of Art and Prehistory, Maçao, IPT, Portugal and the Department of Archaeology & Anthropology, University of Bristol, UK.

Prologue

Within rock art studies, researchers constantly ask themselves, albeit sometimes in a rather unscientific manner, when was the rock art made, why and by whom? Thankfully, we don't have all the answers and the debates that fly around the internet and in printed form. To have all the answers would take away the mystique from what is an enigmatic archaeological, and mainly contradictory, assemblage. In one respect, a rock art panel can reveal telling information about past societies, but in another regard, we as modern humans with our 21st-century mindsets are no nearer the truth. I therefore sincerely thank Professor Anati for allowing me to say a little about the rock art that is in my backyard, so to speak. While I know every nook and cranny on every panel I have surveyed, I can only speculate and debate the philosophical processes that were in action 5,000 years ago. Long may I never know the full story!

Diolch i chi a mwynhewch y darllen! (Thank you and enjoy the reading!)

Introduction: being part of a wider picture

In western Britain, and by this I refer to south-western England and north-west England and Wales, there is now a substantial engraved rock art assemblage that can be attributed to the later prehistoric period, either Neolithic or Bronze Age in date. The rock art, what I term as a visual communication system, comprises a series of engraved abstract geometric motifs (Shee-Twohig, 1981). The art appears to coincide with the construction of large megalithic monuments such as the passage graves in the Boyne Valley, Ireland or the large tombs along the Brittany Peninsula. Unlike other areas of the world, this assemblage is loosely scattered across the various regions of western Britain with limited reference to a recognized cluster as such. The western British Isles forms part of a 3,200-km coastline that forms the Atlantic façade (Cunliffe, 2004). It is along this stretch of western Europe's coastline that burial practice and engraved and painted imagery become a sophisticated package. This way of life and death specifically involved the deliberate siting of rock art inside and outside Neolithic chambered monuments; both the monument and art appear to be inextricably linked to death, burial and the ritual process of the internment of the body (Bradley, 2009).

Playing by the rules

The Neolithic communities along the north-western fringe of the Atlantic seaboard appear to have shared a unique set of ideas that connected megalithic art, burial-ritual monuments and landscape grammar (Cunliffe, 2004; Mazel *et al.*, 2007). This package encompasses what I collectively term art, architecture and aspect (Nash 2012). These three components bind a collective ideology which I have suggested is deliberate.

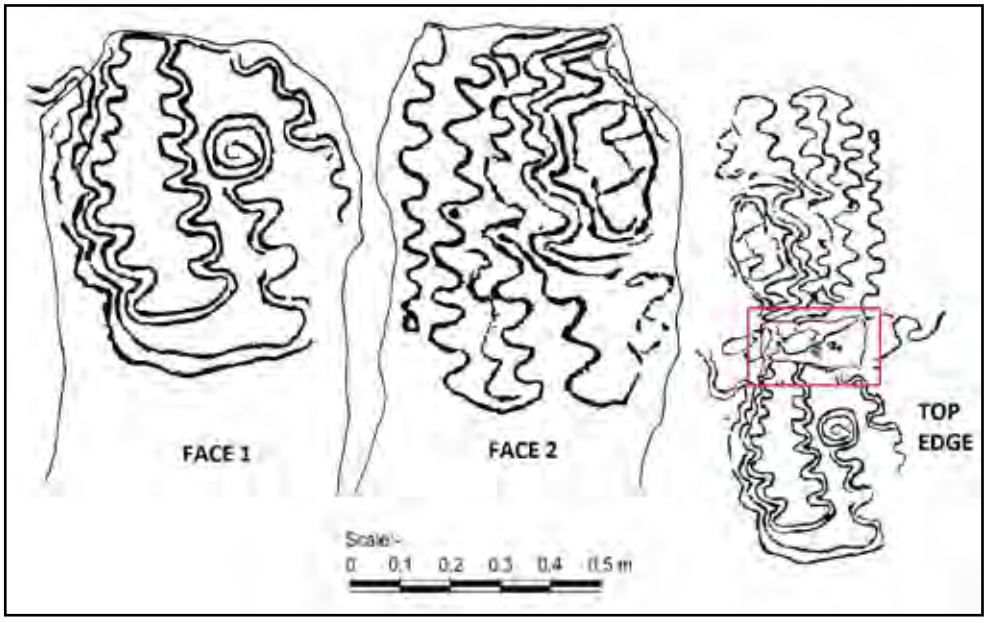


Fig. 1. The main decorated face of the Pattern Stone (Image: GHN).

Fig. 2. Rock art imagery from the Copt Howe Boulder, replicating the landscape that includes the summit of Harrison Stickle, Cumbria, north-west England (after Sharpe 2007).

For this short paper, I ask several research questions. First, what are the universal rules that appear to govern the positioning of rock art in and around megalithic monuments? Second, how should we interpret the repertoire of engraved symbols that recurs throughout these Neolithic core areas? Do the carved and painted spirals of the western Mediterranean have the same meaning as those found in the monuments of Ireland, North Wales and Orkney? Despite the propinquity of artistic endeavour, architectural design and the replication of landscape position, no two monuments or their associated art are identical; each possesses a unique signature based on the manipulation of certain architectural devices and a limited set of artistic abstract symbols. At a fundamental level, however, there is commonality, a semiotic grammar binding art, monument and community over at least a 3,000 year period.

Why be abstract?

Forms of ritual expression through engraved art appear to have circulated widely around the Irish Sea province probably through a number of contact and exchange networks (Cummings, Whittle, 2004; Cunliffe, 2004). The origins of this dynamic system, whereby ideas as well as commodities are exchanged, can be traced to the Late Mesolithic, if not earlier.

Megalithic art is usually abstract in form and is exclusively found within a burial context in, on or around Neolithic burial-ritual monuments. It is closely associated with the Late Neolithic passage grave tradition, incorporating variations of motifs that include bands, chevrons, lozenges and spirals (Shee-Twohig, 1981). In addition, depending on the region, representative engravings are also found, including footprints, parts of, or complete, stylistic anthropomorphic and zoomorphic representations with associated weaponry (e.g. the Calderstones, Liverpool).

The concept of passage grave construction and integrating megalithic art appears to have moved from Ireland to mainland western Britain around c. 3,000 BCE. Although only two fully formed passage graves survive in the island of Ynys Môn (Anglesey) and the remains of a destroyed example lie in the suburbs of Liverpool, there may have been many more. The Reverend John Skinner notes during the course of his *Ten Days Tour in Anglesey* (1802) that a number of monuments had been destroyed; several of these may well have been of the passage grave type, including one to the south of Bryn Celli Ddu.

Of the two remaining passage graves in Anglesey, Barclodiad y Gawres is by far the most ornately decorated and, in terms of its landscape position, the most dramatic, standing on a small headland next to open sea. Excavation in 1952–3 followed the near destruction of the monument during the mid-19th century when much of the stone from the mound was reused to construct the abutting field boundaries (Powell, Daniel, 1956). Although much of the site has been partly reconstructed, the antechamber, gallery and passage uprights remain *in situ*, as do sections of the circular mound. In common with other passage graves, the passage itself, 7 m long, which atypically runs north–south, restricts the outsider's view of the art and the ritual activity within.

The megalithic art at Barclodiad y Gawres comprises finely pecked abstract motifs on six stones (Lynch, 1970; Shee-Twohig, 1981, 229; Nash *et al.*, 2005). All decorated stones are located inside an area that incorporates the inner passage and the main gallery. It is from the architectural arrangement that builders and artists were concerned with the visibility of the art, in particular who should see what and when (Nash *et al.*, 2005).

Based on Shee-Twohig's numbering reference system, the inner passage area and main gallery possess two highly decorated stones: Stones C16 and L8. Stone L8, protruding away from the line of the passage, and forming the eastern part of a doorway, has within

its panel design a series of pecked lozenges and chevrons similar to those found in Newgrange and the Calderstones. A recent survey using oblique lighting revealed a series of finely pecked concentric circles, spirals and grooves on the upper section of this stone. The 1952–3 excavation confirmed that the eastern antechamber had suffered the ravages of antiquarian plundering. However, elements of Neolithic burial rites (burnt bone, flint and pottery fragments) survived in small pockets abutting the chamber uprights. Several of the antechamber uprights (e.g. the newly discovered Stones C2 and C3) reveal the wealth of megalithic art, while the west section of the antechamber was less ornate; the reason for this particular distribution is unclear.

One of the most complex panels (C16) incorporates three sets of designs, and stands where the passage and gallery meet, its face turned away from the gaze of the casual onlooker outside within the façade area. These designs would have only been visible from the inner sanctum where the rites of interment would have been performed. The design on this stone includes a pecked anticlockwise spiral, five complete horizontal zigzags and three part zigzag lines with two chevrons, one below the other. On either side of the face is a sinuous multilinear pattern that continues to the base of the upright. This particular design has similarities with the Pattern Stone at nearby Bryn Celli Ddu, which possesses a serpent-type pecked engraving (figure 1). These stylized symbols may represent or indeed replicate certain elements of the landscape (e.g. Nash, 2002). Kate Sharpe (2007) has promoted the idea of a celestial body (represented by a complex spiral motif) moving across the panel of Copt Howe, Langdale to eventually 'set' behind a series of lines that may represent the summit of a prominent peak in the Cumbria range, north-west England (figure 2). Likewise, at Barclodiad y Gawres several stones have a series of motifs whose panel grammar may replicate the localized landscape. Chevrons, zigzag lines and a spiral could represent the sunrise over the Snowdonia mountain range in the east, while the spirals on the upper section of the panel may replicate the setting of the sun. Ongoing research at Barclodiad y Gawres is revealing a possible similar concept whereby elements of the landscape are being transformed to the rock panel (figure 3).

Fig. 3. The panel grammar on Stone C16 at Barclodiad y Gawres, showing a possible celestial body over the Snowdonia Mountain range (Image GHN).

The nearby passage grave of Bryn Celli Ddu occupies a quite different landscape from that of Barclodiad y Gawres, being set in slightly undulating surroundings around 1.5 km north of open water and in a largely rock outcrop environment. The monument has in its recent past undergone reconstruction, following excavation, with much of the form of the eastern section of the mound restored. Hemp's excavation of 1928–9 revealed an ornately carved stone known as the Pattern Stone (Hemp, 1930). This stone covered a central pit east of the back wall of the chamber. Uniquely, this stone has engravings covering both faces and the upper ridge with a continuous serpentiform (snake-like) pattern whose end terminates in an anticlockwise spiral. Hemp believed the stone, measuring 1.5 m high and 1.64 m wide, belonged to a possible henge monument which was in use prior to the construction of the passage grave. Shee-Twohig (1981, 230) suggests that the Pattern Stone may have been a dedication stone for an elite individual. It is conceivable that the centrally

located pit, the Pattern Stone and perhaps a clay floor extending along the passage and chamber may have formed part of a pre-construction phase with all these components ritually dedicating the site. A possible legitimizing of a ritual place prior to construction is also attested at nearby Bryn yr Hen Bobl, a hybrid monument that has both passage grave and long mound components (but no rock art).

Fig. 4. An engraving of the remains of the Calderstones site in Liverpool, dated 1840.

Although the Pattern Stone has a set of interconnecting designs and is regarded as megalithic art, questions arise as to why it was lying prone in a central pit prior to the construction of Bryn Celli Ddu. One could suggest, given its non-megalithic context, that megalithic art is not exclusive to the passage grave tradition, especially in peripheral areas of north-west Europe such as Wales and Scotland.

Further east but still within the north-eastern extent of the Irish Sea province are the partially reconstructed remains of the Calderstones in Liverpool. Removed from its original location, the stones from this monument have been re-erected in a nearby park (figure 4). The site, with a complex recent history, is believed to form part of a large passage grave and possesses similar designs to those found in the Anglesey monuments (Forde-Johnson, 1956, 73). The six surviving stones are decorated and include clockwise and anticlockwise spirals, merging spirals, concentric circles and lozenges. There are also eight carved footprints on three of the stones, a dagger and a Maltese cross (Simpson, 1867); these designs, however, may be later additions (Nash, 2012). Several of these stones also possess multiple cupmarks which may or may not be contemporary with other megalithic art. Based on the individual designs, there are clear stylistic associations with other examples of British and Irish megalithic art, suggesting contact and exchange between communities which would have promoted the circulation and widespread adoption of particular motifs.

Despite the lavish nature and complexity of the megalithic art, this monument, along with those in Scotland, may represent the demise of the passage grave tradition in north-western Europe, as no megalithic art is found in passage graves or otherwise further eastwards in Denmark or southern Sweden where, the attitudes towards death and body procurement have been changed.

References

Bradley, R.
2009 *Image and Audience: Rethinking Prehistoric Art*, Oxford (Oxford University Press).

Cummings, V.; Whittle, A.
2004 *Places of special virtue: megaliths in the Neolithic landscapes of Wales,* Oxford (Oxbow Books).

Cunliffe, B.
2004 *Facing the Ocean: The Atlantic and its Peoples, 8,000 BC to AD 1500*, Oxford (Oxford University Press).

Forde-Johnson, J.L.
1956 The Calderstones, Liverpool, in Powell, T.G.E., Daniel, G.E. (eds.), *Barclodiad y Gawres: The Excavation of a Megalithic Chambered Tomb in Anglesey*, Liverpool (Liverpool University Press), pp. 73–75.

Hemp, W.J.
1930 The Chambered Cairn of Bryn Celli Ddu, *Archaeologia Cambrensis* 80, pp. 179–214.

Herity, M.
1970 The Early Prehistoric Period around the Irish Sea, in Moore, D. (ed.), *The Irish Sea Province in Archaeology and History*, Cardiff (Cambrian

Archaeological Association), pp. 29–37.
Lynch, F.M.
1970 *Prehistoric Anglesey*, Llangefni (Anglesey Antiquarian Society).
Mazel, A.; Nash, G.H.; Waddington, C. (eds.)
2007 *Metaphor as Art: The Prehistoric Rock Art of Britain*, Oxford (Archaeopress).
Nash, G.H.
2002 The Landscape Brought Within: A Re-evaluation of the Rock Painting Site at Tumlehed, Torslanda, Göteborg, West Sweden, in Nash, G.H.; Chippindale, C., *European Landscapes of Rock-Art*, London (Routledge), pp. 176–94.
2012 Pictorial signatures with universal meaning or just coincidence: a case for the megalithic art repertoire of Mediterranean and Atlantic seaboard Europe, in McDonald, J.; Veth, P. (eds.), *A Companion to Rock Art*, Oxford (Blackwell Publishing, Series: Blackwell Companions to Anthropology).
Nash, G.H.; Brook, C.; George, A.; Hudson, D.; Mcqueen, E.; Parker, C.; Stanford, A.; Smith, A.; Swann, J.; Waite, L.
2005 Notes on Newly Discovered Rock Art on and around Neolithic Burial Chambers in Wales, *Archaeology in Wales* 45, pp. 12–16.
Powell, T.G.E.; Daniel, G.E.
1956 *Barclodiad y Gawres: The Excavation of a Megalithic Chambered Tomb in Anglesey*, Liverpool (Liverpool University Press).
Shee-Twohig, E.
1981 *Megalithic Art of Western Europe*, Oxford (Clarendon Press).
Simpson, J.Y.
1867 *Archaic Sculpturings of Cups, Circles, etc. upon Stones and Rocks in Scotland, England and Other Countries*, Edinburgh (Reprinted by Kessinger Publishing Legacy Reprints).
Sharpe, K.
2007 Rock Art and Rough Outs: Exploring the Sacred and Social Dimensions of Prehistoric Carvings in Cumbria, in Mazel, A.; Nash, G.H.; Waddington, C. (eds.), *Metaphor as Art: The Prehistoric Rock Art of Britain*, Oxford (Archaeopress).
Skinner, J.
1802 Ten Days' Tour through the Isle of Anglesea, December, 1802, *Archaeologia Cambrensis*.

Encoding identity: spatial motif variation as an answer to when, why and for whom rock art was produced in Zimbabwe

Ancila Nhamo
Archaeology Unit, University of Zimbabwe, Zimbabwe.

Recent research in Zimbabwe has shown that the variation of motifs over space can provide answers to questions regarding when, why and for whom southern African rock art was produced (Nhamo, 2014). Much of the rock art of southern Africa is attributed to hunter-gatherers, based on the high frequency of motifs related to hunter-gatherers and minimal allusion to farmers or herders. Contemporary hunter-gatherer groups are known to have formed themselves into small bands that sometimes congregated into band clusters. Band clusters belong to broad language groups. Minute variations in culture have been noted among these different levels of groupings among contemporary groups. Such localized variability has not been studied in past hunter-gatherers. Research on Zimbabwe took the assumption that the variation in motifs found in rock art, especially over space, can provide the signatures of this cultural variation. These signatures can in turn inform us on why the art was

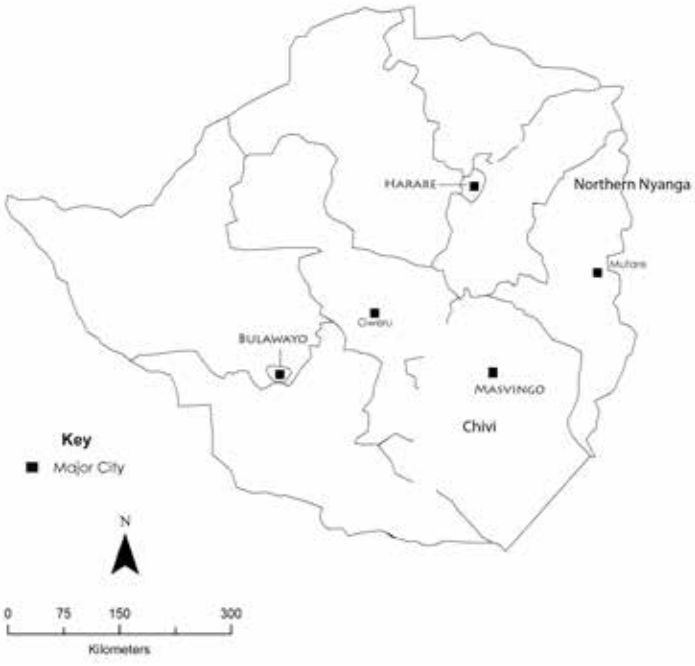


Fig. 1. Southern Africa, Zimbabwe and the research areas.

Fig. 2a. Human and reptile-like features, Harare.

made and for whom.

In southern Africa, earlier researchers described broad regional differences in southern African rock art, dividing it into three, four or five regions depending on classification approaches (Burkitt, 1928; Bleek, 1932; Frobenius, 1931; Lewis-Williams, 1983; Van Riet Lowe, 1956; Rudner, Rudner, 1970; Willcox, 1968). Others further pointed out variation even within these broad regions (Garlake, 1995; 2001; Hampson *et al.*, 2002; Pearce, 2009; Eastwood *et al.*, 2010). However, this variation has not received further attention beyond mere mention. Instead, more emphasis has been given to the commonalities that unite the rock art of southern Africa (e.g. Lewis-Williams, Dowson, 1989). The studies on commonalities have provided general knowledge about rock art. Nevertheless, the differences can assist in identifying smaller groupings in the southern Africa by informing us why and how artists from one group were making art that was slightly different from other groups. At the moment, however, it is difficult to say for certain if the variation is indicating groups of bands or band clusters.

Differences in the subject matter, technique of execution and colour can all be ascribed to issues of authorship and reasons for the production of the rock art. In Zimbabwe, the variations indicate that the rock art was produced by artists who were part of smaller groupings of hunter-gatherers in the larger hunter-gatherer community. Since these artists were informed by the thought systems of their communities, their art carried cultural messages relevant to their particular groups, as well as broad hunter-gatherer concepts, with the addition of cultural variations in beliefs that were confined to certain hunter-gatherer groups.

Research into the subject matter, technique of execution and colour of rock art in Zimbabwe has shown minute differences depending on what was being communicated through the art. The differences in frequency and types of motif have been revealed. For example, variations have been noted in the forms of animal and human attributes in rock art from three geographic areas in Zimbabwe, Harare, northern Nyanga and Chivi districts (figure 1). In Harare, combinations of human and reptile-like features (figure 2a) were observed, whereas combinations of snake and human features were found in northern Nyanga (figure 2b). Both differ from the baboon and human configurations observed in Chivi (figure 3). Variation has also been noted in other subject matter such as the animals and human beings depicted. For example, differences in the frequency of male and female human representation were observed. Such variation in motifs shows that rock art was made for special groups of people who understood what was being communicated.

The variation in the rock art also shows he diversity in

Fig. 2b. Human and snake-like features, northern Nyanga.

social context within which the art was produced among the smaller hunter-gatherer groups across Zimbabwe. Differences in social activities depicted in the art indicate the diversity in the social context of rock art production. Earlier researchers illustrated that activities such as communal dances, ceremonies and rituals provided the social context from which the motifs were derived (e.g. Lewis-Williams, 1981; Parkington, 2001; Solomon, 2008). The existence and nature of these ceremonies may have differed from place to place, resulting in different representations in the art.

Fig. 3. Bichrome with human and baboon-like features, Chivi.

In Zimbabwe, a variation in the use of colour on the motif has been identified as one way of explaining different social contexts of the rock art. In one of the areas studied, Chivi District, it was observed that the activities depicted in bichrome colours differed from those depicted in the bichrome and monochrome rock art found in other parts of the country. The bichrome rock art focuses on depicting mostly groups of male and female figures dancing and clapping their hands (figure 3). These figures are depicted in white, while their clothes and other adornments are in red. This is a significant difference in bichrome art from other parts of Zimbabwe, where red depicts the figures and white is used for the adornments. This manner of using colour is probably alluding to particular communal dances and ceremonies that were performed among the groups living in Chivi. The fact that the dancing figures are depicted in white could be showing that these dancing ceremonies were associated with body painting or some such ritual which the artists were referencing. This example of variation in the use of colour shows that if studied on a wider scale, motif variability can tell us why rock art was made in specific localities.

The variation in the technique of execution has also shown other peculiarities that can assist in the identification of smaller groupings of hunter-gatherers. This is because the technique of execution may have been used by some groups to encode identity and territoriality. A distinct way of executing rock paintings was observed in the rock art from northern Nyanga. Most of the images are depicted using stripes rather than spreading the paint (figure 4). Comparisons of the subject matter depicted in the rock art with that of surrounding areas has not shown any significant difference apart from the minute difference in motif features mentioned above. Thus, the distinct technique of execution could therefore be explained as a result of the need for groups in this particular area to distinguish themselves from neighbouring groups. This shows that the rock art was used as a tool in communication and negotiation of social identities and boundaries. It is known that depending on local environmental and social conditions, some groups from contemporary hunter-gatherers are very territorial while others have a relaxed sense of territoriality (Barnard, 1992). In this case, rock art could have played an important role in identity and marking by a group that had a strong system of territoriality.

Although the above discussion is contextualized in the rock art of Zimbabwe, the issues raised can apply to the whole southern African region. The rock art of southern Africa shares a lot of commonalities with the rock art of the whole region, as has been comprehensively shown by earlier researchers (Rudner, Rudner, 1970; Willcox, 1984; Lewis-Williams,

Fig. 4. Striped images from Northern Nyanga.

Dowson, 1989; Garlake, 1995). The hunter-gatherer groups responsible for the art in the whole region must have been similarly structured to those in Zimbabwe. Therefore the approach to trying to identify smaller groupings of past hunter-gatherer communities should be expanded to other parts of the region. This will provide a comprehensive understanding of when, why and for whom the rock art was produced.

References

Barnard, A.
1992 *Hunters and Herders of Southern Africa*, Cambridge (Cambridge University Press).

Bleek, D.F.
1932 A survey of our present knowledge of rock paintings in South Africa, *South African Journal of Science,* 29, pp. 72-83.

Burkitt, M.
1928 *South Africa's Past in Stone and Paint,* Cambridge (Cambridge University Press).

Eastwood, E.B.; Blundell, G.; Smith, B.
2010 Art and authorship in southern African rock art: Examining the Limpopo-Shashe Confluence Area, in Blundell, G.; Chippindale, C.; Smith, B. (eds.), *Seeing and Knowing: understanding rock art with or without ethnography,* Johannesburg (Witwatersrand University Press), pp. 75-96.

Frobenius, L.
1931 *Madsimudsangar*a, Berlin (Atlantis). Reprinted 1962, Graz (Akademische Druck-uVerlogsanstalt).

Garlake, P.S.
1995 *The Hunter's Vision,* London (British Museum Press).

Garlake, P.S.
2001 Sub-Saharan Africa, in Whitley, D. (ed.), *A handbook of rock art research,* Walnut Creek, MD (AltaMira Press), pp. 637-664.

Hampson, J.; Challis, W.; Blundell, G.; de Rosner, C.
2002 The rock art of Bongani Mountain Lodge and Environs, Mpumalanga Province South Africa: An Introduction to Problems of Southern African Rock-Art Regions, *The South African Archaeological Bulletin* 57(175), pp. 15-30.

Lewis-Williams, J.D.
1981 *Believing and Seeing: Symbolic meanings in southern San rock paintings*, London (Academic Press).
1983 *The imprint of Man: The rock art of Southern Africa,* Cambridge (Cambridge University Press).

Lewis-Williams, J.D.; Dowson, T.A.
1989 *Images of Power*, Cape Town (Struik Publishers).

Nhamo, A.
2014 *Characterizing hunter-gatherer rock art: an analysis of spatial variation of motifs in the prehistoric rock art of Zimbabwe*, Unpublished DPhil thesis, Archaeology Unit, History Department, University of Zimbabwe.

Parkington, J.
2001 Men, Women and Eland: Hunting and gender among the San of southern Africa, in Nelson, S.M.; Rosen-Ayalon, M. (eds.), *In Pursuit of Gender*, New York (Altamira Press), pp. 93-117.

Pearce, D.G.
2009 An introduction to rock art of the Malilangwe Conservation Trust, south-eastern Zimbabwe, *Azania* 44 (3), pp. 331-342.

Rudner, J.; Rudner, I.
1970 *The Hunter and His Art*, Cape Town (Struik).

Van Riet Lowe, C.
1956 *The Distribution of Prehistoric Rock-Engravings and Paintings, Archaeological Series* VII, Pretoria (Archaeological Survey).

Willcox, A.R.
1968 A survey of our present knowledge of rock-paintings in South Africa, *The South African Archaeological Bulletin* 23 (89), pp. 20-23.
1984 *The Rock Art of Africa*, Johannesburg (Macmillan).

Rock art: when, why and to whom? Rock Art from Temiya and Fugoppe Caves, Japan

Masaru Ogawa
Professor, Faculty of Arts, Naruto University of Education, Japan.

Petroglyphs from Fugoppe cave, Yoichi-town, Hokkaido, were discovered in 1950, and after archaeological excavation from 1951 to 1953, the local specialists estimated their date should be about 1,700 years ago (figure 1); they had discovered many fragments of pottery that might belong to the culture of about 1,700 years ago. But from another point of view, we have estimated their date as 1,900 years ago. We found many rock fragments with parts of petroglyphs in all the archaeological layers from bottom to top, that means, we think, that all the artworks there had been made by the time when the people arrived with a pottery culture of about 1,700 years ago. The makers might have arrived there with a petroglyph tradition about 1,900 years ago, and left more than 800 figures on the rock wall in one generation. Then, they disappeared, and other people came there and found petroglyphs without knowing their significance, and scattered them through all the layers, not caring about them. About 1,400 years ago, the pottery people abandoned the site, then the

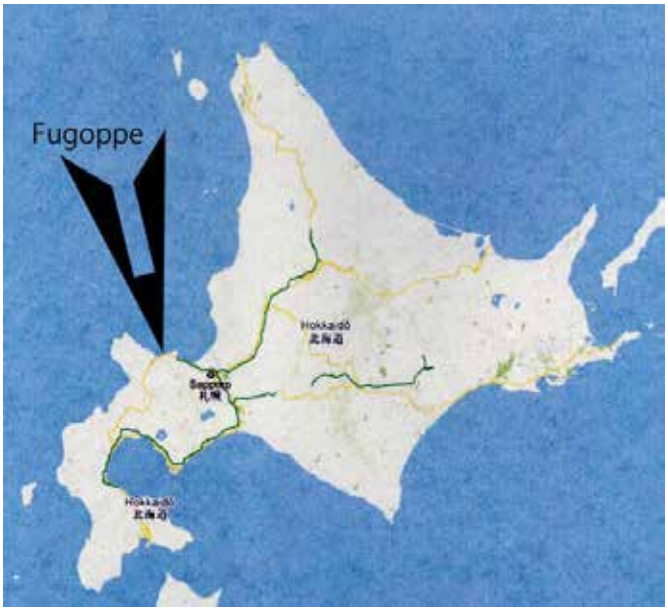


Fig. 1. Map with indication of fugopppe and Temiya, Hokkaido, Japan.

Fig. 2. Human with sharp edges, 27 cm high.

cave itself, and its rock art were covered with soil and debris for more than 1,000 years, to be found again 65 years ago. Controversy on dating of petroglyphs from Fugoppe has continued among the local archaeologists and us specialists of rock art. We think that rock art is not necessarily coincident with the people with the dominant culture at the site. In Fugoppe and its neighbouring site Temiya cave (discovered in 1866), Otaru-city, Hokkaido, the makers left only art cultures, without any other testimonies of their existence. Is it possible? Now we go to the problem of makers.

At present in Japan, only two sites with rock art are confirmed, that is, Fugoppe and Temiya, both in Hokkaido, the northern big island of the archipelago. In the rest of Japan, we cannot find any site of prehistoric rock art. Thus, we have to seek the linkage outside Japan, but even after our intensive researches in north-eastern Asia we have not encountered contemporary examples around the Sea of Japan (East Sea). Now, we suppose that the makers of petroglyphs from Fugoppe and Temiya might be nomads, maybe fishermen, on seashore from the mouth of the Amur River, Far East Russia, via east coast of Sakhalin Island to Hokkaido. They would have inherited a culture of making rock art from a Bronze Age tradition, named the Scythia-Tagar-Eerdousi (Ordos) culture complex, which spread over the northern belt of the Asian continent from the 8th century to the 1st century BC. They had begun to move towards the Japanese

Fig. 3. Human with wings, 36 cm high.

archipelago, and finally arrived on the east coast of Hokkaido. They may have found first Temiya cave to make petroglyphs on the rock wall there. The rock surface at Temiya is hard andesite, so they adopted the pecking technique to make figures. At Temiya, we find only about 30 figures, and there is no space for any more. So we suppose that they may have searched for another place for their activities. Fugoppe is about 15 km from Temiya on the coast. It is a shallow cave made from hyaloclastite from a volcano, and the quality of the rock surface there was softer than that of Temiya, so the artists may have invented the new technique to make figures on rock surfaces, called abrasion, including cutting and polishing. This is a unique technique even worldwide, and makes a sharp impression (figure 2). There are more than 800 figures, of which more than 90% are human. This bias of motif selection is an important characteristic of petroglyphs from Temiya and Fugoppe.

Of course, generally speaking, it is very difficult to know the meaning of prehistoric rock art. Petroglyphs from Japan were made only 1,900 years ago, but at that time at Hokkaido, the inhabitants were not literate, so we have to guess what was the main purpose of making art at Temiya and Fugoppe. As we wrote above, the makers at both sites might have been marine wanderers of the northern part of Japan Sea, successors of the Bronze Age Scythia-Tagar-Eerdousi (Ordos) culture complex, with rock art making traditions and a northern Asian spiritual background. As well recognized, shamanism derived from this part of the world. Some Hokkaido archaeologists have insisted that all the human figures are shamans. Indeed, many works seem to be equipped with horns and wings like shamans (figure 3). These figures may concern those who have believed the shamanism interpretation for Franco-Cantabrian parietal art.

Here, in conclusion, we would like to suggest another possibility for the meaning of Japanese rock art. In Hokkaido, we have the famous early inhabitants named the Ainu. They had a ceremony named Iomante that meant to send something beyond, and we can regard our petroglyphs as the remains of the sending ceremony. For Japan, we think that both Iomante and petroglyphs derived from the north area, like Siberia and Sakhalin Island. In the rest of Japan, we have had not found any relics from both traditions. What had the makers of rock art sent beyond? At Temiya and Fugoppe, almost all the figures are humans, and such a concentrated interest in men is significant for the interpretation. To send human beings beyond seems to be meant a kind of funerary act, and judging from this supposition, we suggest that Japanese petroglyphs from 1,900 years ago might have been made for the dead men and their living friends. This proposition is only a speculation derived from a traditional ceremony, but we would like to posit a new orientation for rock art research.

Reference:

Ogawa, M.
2014 Dating Petroglyphs from Fugoppe Cave, Japan, *Arts*, 3, doi: 10.3390/arts3010046, (www.mdpi.com/journal/arts), pp. 46-53.

Fig. 4. Fugoppe cave with a new cover building constructed in 2004.

Rock art of Southern Bihar and adjoining Jharkhand in Eastern India: when, why and to whom?

Awadh Kishore Prasad
Senior Academic Fellow of the Indian Couincil of Historical Research, New Dheli, India.

Introduction

India is one of the six major rock art regions in the world, but surprisingly the southern Bihar and adjoining Jharkhand, which formed part of the ancient Magadhan kingdom, so well known for its glorious history, remained obscure on the rock art map of India till about one hundred rock shelters and caves containing prehistoric rock paintings, petroglyphs and ancient rock inscriptions were discovered by the author during the early 1990s (Prasad, 2003–04). Besides rock art, several Stone Age tools factory sites, megalith sites and Buddhist cave monasteries were also discovered in this extremely remote and dangerous region, forming part of Nawada, Jamui, Nalanda, and Gaya districts in Bihar and adjoining Giridih and Kodarma districts of Jharkhand in eastern India (Prasad, 2012). Carrying out explorations in this almost inaccessible region was extremely challenging and risky, not only due to the difficult terrain and overwhelming presence of wild animals, poisonous snakes and scorpions but also due to the Naxalites and criminal elements.

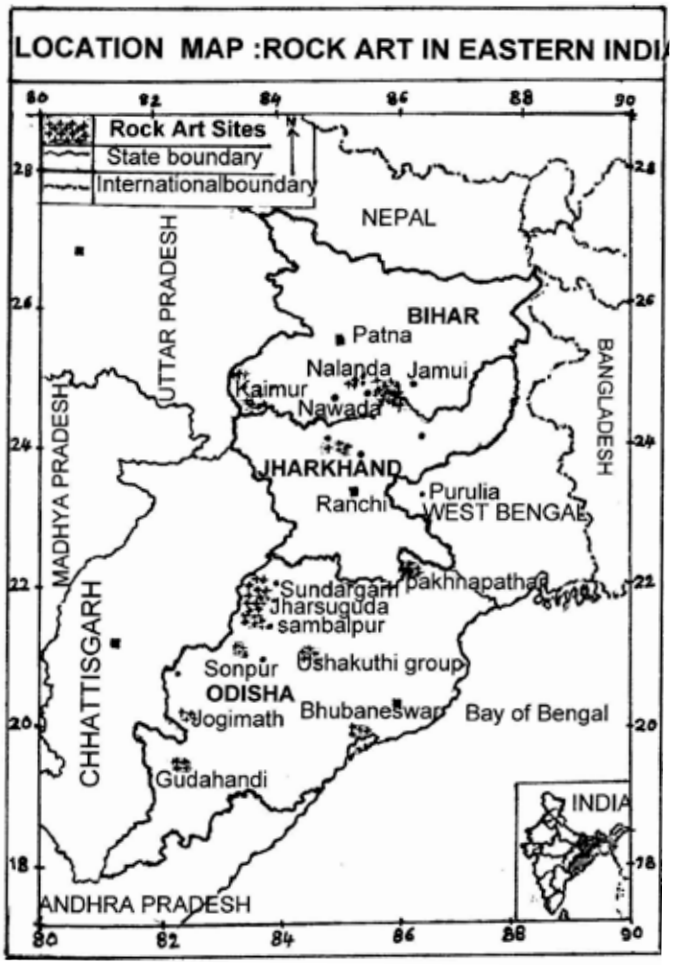


Fig. 1. Location map of the rock art region.

The rock art sites lie between latitudes 24°40' and 24°53' north and longitudes 85° 41' and 86° 7' east in the northeastern part of the Chotanagpur plateau, the northern extension of the Vindhyan ranges (figure 1, location map).This plateau is the meeting point of the oldest rock formations, like granite and gneiss, and the comparatively young Vindhyan sandstones, and volcanic basalt (Sankalia, 1974)The entire rock art region is densely forested and infested with wild animals such as bear, wild boar, deer, rabbit, leopard and tiger, as well as snakes and scorpions. The hilly region is mainly inhabited by the Santhals, the largest aboriginal tribe in India. Small bands of another tribe (presently at the verge of extinction), still leading the life style of the hunter-gatherers, can also be occasionally spotted roaming in the forest.

The rock art of this region mainly consists of prehistoric rock paintings. Petroglyphs are very few but unique. Comprehensive documentation including videography of almost all the rock shelters and caves and the open rock surfaces containing rock art has been meticulously done. Rock paintings are found on the walls and ceilings of the rock shelters and caves, while the petroglyphs are mainly found on the granite boulders in the open. The rock paintings are executed in various shades of red, white, ochre and black, including a very rare blue colour. The rock art of this region is extremely important and unique in many aspects, though it shares some common features with other Indian rock art regions. Predominance of symbols and geometric and intricate designs, frequent depictions of therianthropes or wizards, snakes, various ritualistic scenes and selection of only one rock shelter or cave for painting out of several available in a cluster indicate the prevalence of distinct thematic, motivational and stylistic traits (Prasad, 2014). It certainly provides a very useful window for finding answers to certain basic questions, when and why

Fig. 2. Chart showing some of the symbols and intricate and geometric signs from the rock art of southern Bihar and adjoining Jharkhand.

rock art was produced and to whom were the messages addressed? In this paper I attempt to answer these questions.

What kind of society produced the rock art: hunters, gatherers, agriculturists? When was it produced and by whom?

Rock art holds the story of our sapiens species; it is the most conspicuous and important treasure of man, as it identifies the many facets of culture and the many identities of human imagination (Anati, 2013). The subject matter of early prehistoric rock art all over the world mainly revolves around the depiction of symbols and geometric or intricate designs, certain wild animals which were hunted for food (including some feared or venerated) and hunting-gathering scenes. Domestication of animals and plants, the main ingredients of agricultural society's sustenance, is a much later development during the Neolithic period and therefore domesticated animals and plants naturally do not figure in the early rock art of the Upper Palaeolithic and early Mesolithic periods. As such it can be assumed that early rock art was produced by a society which consisted of hunter-gatherers. Subsequently the hunting-foraging economy was replaced during the Neolithic period by the agropastoral mode of subsistence, with domestication of animals and plants along with settled life, though hunting-gathering also continued to some extent. Naturally rock art of this period was produced by the dominant agricultural society, which mainly depicted domesticated animals and plants and other aspects of village settlement. Production of rock art continued in some parts of the world also during the early historic period and in certain areas even till recently.

Symbols, intricate designs and geometric signs are the vital components of prehistoric art all over the world. One of the biases about early art development emanating from western Europe is that it consists largely of naturalistic images of objects, notably of large animals. This is not true of the Franco-Cantabrian region of western Europe itself, where figurative representations are outnumbered more than three times by non-figurative art (Bednarik, 1991). As far as rock art of eastern India and particularly that of southern Bihar and adjoining Jharkhand is concerned, there is a very conspicuous predominance of symbols and geometric and intricate signs. Each and every painted rock shelter and cave invariably contains symbols and intricate and geometric signs. It clearly indicates that production of rock art started in this region as early as the Upper Palaeolithic Period. It is also observed that production of rock art further continued here till early historic era.

Based on the subject – matter and other archaeological evidences such as the Stone Age tools, pot sherds, animal bones and ancient rock inscriptions found in the painted rock shelters, the Rock art of southern Bihar and Jharkhand can be put in four developmental stages (Prasad, 2009). The earliest phase contains the rock art of the hunter-gatherers, roughly corresponding to the Upper Palaeolithic period, dominated by symbols and intricate and geometric designs. The second phase consists of the rock art of the hunter-gatherers, depicting hunting and dancing scenes besides symbols and intricate and geometric designs, corresponding to the Mesolithic period. The third phase contains

rock art of the settled agriculturists and animal keepers, depicting cattle and other domestic animals besides symbols and geometric signs, corresponding to the Neolithic and Chalcolithic periods. The fourth phase pertains to the rock art of the early historic era depicting various human activities connected with their religious, social and economic activities by the local indigenous communities as well as the outsiders such as Saka and Kushan travellers and traders and pilgrims from the northwestern section of the Indian subcontinent (Prasad, 2009).

By whom was the rock art of this region produced?

The archaeological and ethnographical evidence suggests that rock art in India, and particularly eastern India, was produced by the ancestors of the aboriginal tribal communities inhabiting the forested hilly regions. The earliest inhabitants of the Indian subcontinent are supposed to be the tribal communities, consisting of various tribes such as the Santhal, Bhil, Munda, Gond, Kolis, Korku, Saori, etc. They are widely regarded as the predecessors of both the Aryan and Dravidian-speaking people. In many parts of India especially in the forested hilly regions they have remained completely outside the village economy and outside the Hindu culture even today. They may not be the earliest Indian *homo sapiens* but they have clearly been in India since before the Aryan and Dravidian-speaking people. In early Indian rock art there is nothing to associate the artists with technically more advanced cultures. The Aryans who eventually dominated north India, where rock art is to be found now, were cattle-raising, chariot-driving horsemen who practised agriculture and raised cattle, sheep, goats and pigs. None of this appears in the early rock paintings. On the contrary, the subject matter is exclusively geometric signs, wild animals and humans in conflict with them (Wakankar, 1976). Many of the early paintings show scenes of hunt, dance and shamanistic activities still practised in similar forms by the tribal communities in many parts of India, and particularly Bihar, Jharkhand and Odisha in eastern India. As such, it appears more or less certain that the producers of rock art were the ancestors of the tribal communities living in the remote forested hills, mostly cut off from the mainstream.

It appears that in this rock art region during the later phases of the Mesolithic and early Neolithic periods the rock shelters and caves located deep inside the dense forest on higher terrain were gradually abandoned by the ancestors of the local tribal communities, being unsuitable for farming and cattle-rearing. They moved downwards into comparatively open uplands which were more suitable for doing farming as well as keeping their domestic animals, in terms of the availability of water, food, habitats and safety from wild animals. The present tribal villages nearest to the rock shelters and caves containing Neolithic and Chalcolithic paintings are located within 1.5–3 km (Prasad, 2012). Though the local tribals presently do not make paintings on the walls and ceilings of rock shelters and caves, they have continued the tradition of making similar types of paintings on the walls of their houses on important

Fig. 3. A large number of symbols, intricate and geometric signs in Rock shelter XI.B.1.

occasions, especially during a marriage in the family.

Why rock art was produced: message, communication, commemoration, memorization? What did it intend to convey? What is its content?

The life of early man must have been extremely precarious, difficult, risky and hazardous. Under such conditions he would not have devoted so much time and efforts unnecessarily in producing rock art just to embellish the rock surfaces. He must have done it with some purpose. Scholars such as Ed Lartet, M. Boule, Salomon Reinach, Henri Breuil, André Leroi-Gourhan, Igor Reznikoff, Michel Dauvois, Margaret Conkey, Alexander Marshack, Robert Laden, David Lewis-Williams, Michel Lorblanchet and V. Wakankar have produced their own interpretations. Various suggested motives for producing rock art include hunting magic, religion, shamanism, totemism, sexual significance, fertility rites, communication, commemoration, ceremonial symbols, calendar devices, decoration and doodling. However, it seems reasonable to come to the conclusion that no single explanation can suffice to explain all the multitudinous forms of Palaeolithic art. Different factors probably lay behind different forms of art in different caves and rock shelters, different localities and so on (Ucko, 1967). Most probably in addition to a single primary motivational factor there might be some other factors also contributing to the creation of rock art.

In the case of eastern Indian rock art and particularly that of southern Bihar and Jharkhand, it appears to be primarily shamanistic and its main purpose seems to be to send messages or to communicate with the spirit world. In this regard rock art of this region has a striking resemblance to the shamanistic art of the San people of southern Africa. Lewis-Williams interpreted San art as the telltale signs of shamanistic art, the images from a mind in a state of hallucination**.** He realized that the images of San art were not simple-minded presentations of San life, as Western anthologists had long assumed. Instead, they were the product of shamans in a state of trance: the images were a connection with a shamanistic spirit world and were depictions of what the shaman saw during his hallucination. This is also applicable to a great extent in the context of the aboriginal Santhal tribe and other tribal communities of eastern India. The

Fig. 4. The symbol used in a ritual meant for harming opponents as revealed by the Kharoshti inscription (datable to 2nd century AD) painted around the rim of a circle.

male shaman, locally called Bhagat, and the female counterpart, Bhaktini, played an extremely important role in the religious, social and economic matters of the tribal communities in Bihar and Jharkhand as well as in Odisha. They still exercise considerable influence in such matters.

What is the content of rock art?

The general predominance of either animal figures or human figures or an equal proportion of both is observed in the rock paintings. However, in the case of eastern India and particularly southern Bihar and adjoining Jharkhand, there is an obvious predominance of the intricate and geometric designs right from the Upper Palaeolithic and Mesolithic periods down to the early medieval period (Prasad, 2006). These are found in considerable numbers in each and every painted rock shelter and cave in the Nawada, Jamui, Nalanda and Gaya districts in southern Bihar and the adjoining district of Giridih and Kodarma in Jharkhand (figure 2). The symbols include variations and combinations of circles, squares, rectangles, wheel, cross, etc. The geometric signs consist of grids, zigzags, dots, chevrons, curves, triangles and rectangles, while intricate designs consist of rhombic meanders, concentric circles, spirals and their variants, covering large spaces on the walls and ceilings of the rock shelters and caves (figure 3). The case is similar in the neighbouring Hazaribagh and Chatra districts in Jharkhand. Here also the most eye-striking features of the paintings are the overwhelmingly geometric patterns with intricate designs of many variations (Neumayer, 1993). In

Odisha too the subject matter is by and large non-figurative and non-thematic (Pradhan, 2001). In this aspect the rock art of southern Bihar, Jharkhand and Odisha differs from the cave art of Europe, which is mainly zoomorphic and the rock art of the Spanish Levant, South Africa and Central India which have an almost equal percentage of human and animal figures. Next in order after symbols and geometric and intricate signs come the humans who are depicted hunting, dancing or standing on and around animals in victorious postures. Hunting scenes are mostly ritualistic. Anthropomorphs and wizards are also frequently depicted with upraised arms, widespread legs and extremely long phalli. Next in sequence are animals, birds, plants and insects. Ancient rock inscriptions in Kharoshti, Kharoshti-Brahmi, Brahmi and Shankh also have an important place in the historical paintings of southern Bihar and adjoining Jharkhand.

As put by Anati, rock art contains messages that could be read thousands of years ago. The messages are still there. Rock art is writing before writing. It is interesting to note that the rock art sites are also locally known in Odisha in eastern India as *lekhamoda*, meaning rock shelter with writing. The peculiar character of the art of non-literate peoples, and in particular of rock art, is that of being an assemblage of chronicles that have a tremendous role, in their totality, as the most durable, comprehensive, first-hand source of history of the pre-literate human kind. Picture-writing is pre-literate writing, it is the testimony of our hidden memory and research will make this memory emerge again. It has to be read and decoded (Anati, 2013). However, living in modern society with an entirely different environment and life-style makes it extremely difficult for us to know the meaning of such messages. The ancient images we have today are fragments of an ancient story and although the urge to know what they mean is great, it is wise to accept the probable limits of our understanding (Leakey, 1996).

The content of prehistoric rock art and especially the symbols, geometric signs and intricate designs, were drawn with some purpose, had some definite meaning to the person who made them and other members of the group and the society he formed part of. It is also quite possible that far back in prehistory signs and symbols originated as random marks without any phonetic value or similarity to any specific object, just like Arabian tribal symbols or *wusum*. The *wusum* are not signs and their interpretations are not meanings, but they represent certain social groups or tribes. It was a system of representing names without using a proper writing system. Thus, through usual marks, although they do not correspond to or show any similarity to a real object and have no phonetic value, the messages were understood (Majeed Khan, 2007).

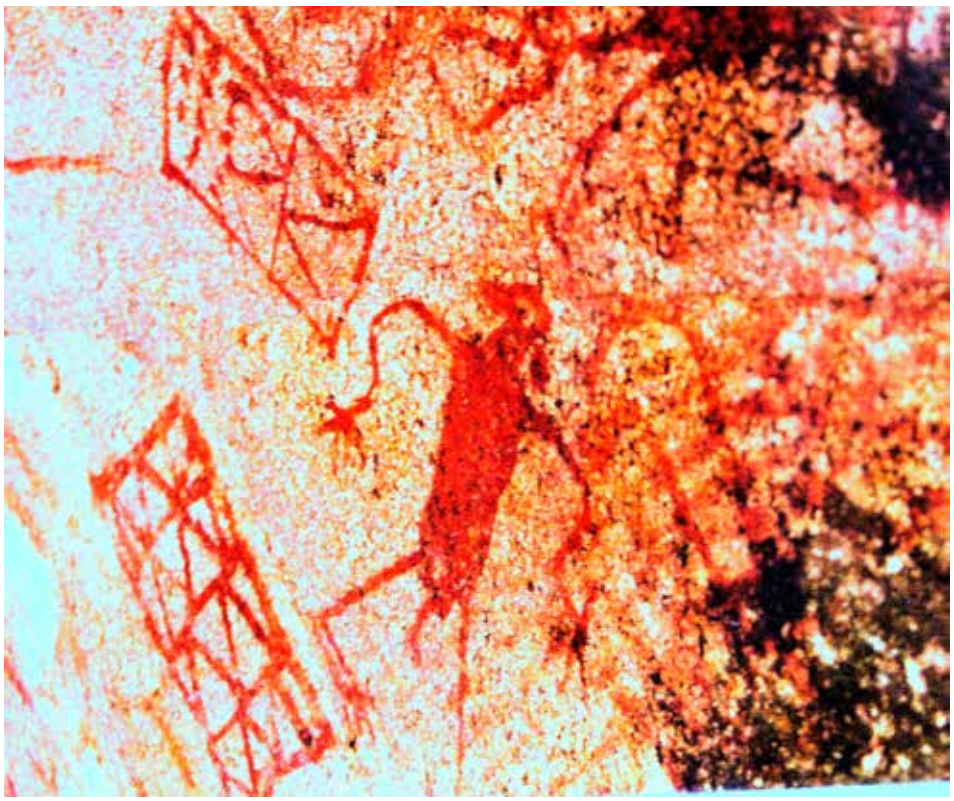


Fig. 5. A therianthrope amid geometric signs depicted in Cave I.A.8.

There are some common symbols and geometric patterns in the rock art sited in different parts of the world but they may not carry the same meaning everywhere. We may not fully agree with Christine Pellech claimed that the meaning of the motifs of circles and spirals

could be proved from the Neolithic till the present all over the world as the meaning of these symbols was constant for a period of around 15,000 years (Pellech, 2001). David Lewis-Williams says of prehistoric art: 'Meaning is always culturally bound'. Artistic expression may form an enigmatic thread in the intricate weave of the cultural fabric of the society. Mythology, music and dance are also part of that fabric: each thread contributes meaning to the whole, but by themselves they are necessarily incomplete (Lewis-Williams, Dowson, 1998). Even if we were to witness the slice of Upper Paleolithic life in which the cave paintings played their role, would we understand the meaning of the whole?

The task of securing correct meanings of the symbols and intricate and geometric signs may require very extensive investigation. We would be lucky if we came across some of them which continued to be used by later generations till recently or which even now are being used by some tribal and local communities. We may also get some clues about those symbols and geometric signs about which some epigraphic or pictorial information is available or where there are communities still using them. It was very encouraging to find pictorial and epigraphic as well as some ethnographical evidence which enabled me to understand the meaning of at least three symbols and geometric signs frequently found in the rock art of southern Bihar and adjoining Jharkhand. The symbols and geometric signs include a circle with six spokes having dots in the space between the spokes, a cross inside a set of two concentric circles and a grid (Prasad, 2014). A rare Kharoshti rock inscription in Rock shelter II.A.2 (deciphered as *Naha Saga Aminashena madhatre*) datable to the second century AD reveals that the symbol consisting of a circle with spokes and dots in the space between the spokes was used in rituals meant for harming enemies (figure 4). Another rock inscription in Kharoshti-Brahmi (deciphered as *Sri-vrata*) datable to the second century AD provides a clue that a cross inside a set of two concentric circles found in Rock Shelter III.A.2 was used in rituals for gaining prosperity and fortune (Mukherjee, 1997). I was also given a very interesting and detailed account of a ritual by a Santhal named Kalesar Kisku, in which grids are still drawn on the ground by the local shamans (Bhagats) to find missing objects in some tribal communities (Prasad, 2007).

To whom was the message addressed, human beings, ancestors, gods, nature? What kind of communication was produced by the rock art? What did their makers expect to obtain as a result of producing rock art?

As mentioned earlier, there is an overwhelming predominance of symbols, and intricate and geometric signs in the rock art of eastern India and especially southern Bihar and Jharkhand. There is also frequent depiction of wizards, snakes and various ritualistic scenes. Another unique feature is that only one rock shelter cave out of the entire cluster containing several rock shelters and caves was selected for making paintings. This specially selected painted rock shelter and cave was most probably considered a sacred place, a temple or a community hall for performing ritual and other important group activities. To a great extent this pattern is also observed in the rock art of Odisha . Although there exists a large number of rock shelters in a geological formation, rock art is found in only a few of them. It is interesting to note that the rock art sites are locally known here either as *lekhamoda*, meaning rock shelter with writing, or *ushakuthi,* meaning worship hall and ritual chamber (*usha*=worship or ritual and *kuthi*=hall or chamber), or *ushakupa* (*usha*=worship and *kupa*=cavity), meaning ritual cavity (Pradhan, 2001).

All these unique features indicate that rock art of eastern India and especially southern Bihar and Jharkhand is primarily shamanistic. Here the messages were addressed to the spirit through the shamans. When asked about the creators of the rock art, some of the local tribals replied that it might have been made by the spirits. It is very interesting to find that rock art of this region is so much similar to the rock art of the San tribe in southern Africa. Lewis-Williams interpreted the San art as being shamanistic art, the images from a mind in the state of hallucination**.** He came to realize that the images were not simple-minded presentations of San life, as Western anthologists had long assumed. Instead, they were the product of shamans in a state of trance: the images were a connection with a shamanistic spirit world and were depictions of what the shaman saw during his hallucination (Lewis Williams, 1988). He was also given a description of some of the now

Fig. 6. A female shaman (*Bhaktini*) in a trance performing a ritual in front of an open-air temple in a Jharkhand tribal village.

vanished shamanistic rituals by an elderly daughter of a shaman which is very much similar to the one still being practised in the tribal communities inhabiting the rock art region of southern Bihar and Jharkhand.

In the San community shamans used to induce trance in themselves by various techniques, including drugs and hyperventilation. The state of trance was invariably accompanied by rhythmic singing, and dancing and clapping of groups of women. As the trance deepened, the shamans would begin to tremble, their arms and bodies vigorously vibrating. While visiting the spirit world, the shaman often 'dies', bending over as if in pain. The eland is a potent force in San mythology, and the shaman may use blood from cuts in the neck and throat of the animal to infuse potency into someone by rubbing it into cuts on the person's neck and throat. Later, the shaman often uses some of the same blood while painting a record of his hallucinatory contact with the spirit world. The images have a potency of their own, derived from the context in which they were painted. And the old woman told Lewis-Williams that some of the power could be acquired by placing one's hand on them. Shamans often perceive their hallucinations as emerging from rock surfaces: 'They see the images as having been put there by the spirits, and in painting them, the shamans say they are simply touching and making what already exists,' Lewis-Williams explains. 'The first depictions were therefore not representational images, but were fixed images of another world.' The rock surface itself is an interface between the real world and the spirit world, a passageway between the two. It is more than a medium for the images; it is an essential part of the images and the ritual that went on there (Lewis-Williams 1988).

According to the psychological literature that Lewis-Williams surveyed, there are three stages of hallucinations, each one deeper and more complex. In the first stage, the subject sees geometric forms, such as grids, zigzags, dots, spirals and curves. These images, six forms in all, are shimmering, incandescent, mercurial and powerful. They are called entoptic (within vision) images, because they are protected by the basic neural architecture of the brain. 'Because they derive from the human nervous system, all the people who enter certain altered state of consciousness, no matter what their cultural background, are liable to perceive them.' In the second stage of trance, people begin to see these images as real objects. Curves may be construed as hills in a landscape, chevrons as weapons and so on. The nature of what the individual sees depends on the individual's cultural experience and concerns. The passage from the second to the third stage of the hallucination is often accompanied by a sensation of traversing through a vortex or rotating tunnel, and full-blown images, some commonplace and some extraordinary, may be seen. One type of important image during his stage is of human and animal chimera, or therianthropes, an intriguing component of Upper Palaeolithic art .

The therianthropes common in the shamanistic San art also find an important place in the rock paintings of southern Bihar and Jharkhand (rock shelters and caves I.A.8, II.A.3, II.D.2, IX.A.1, XI.C.1, XI.B.1, etc.). Besides repeated depictions of therianthropes, the entoptic images of stage one hallucination are also present in San art as well as in the rock art of

the aboriginal Santhal tribe of southern Bihar and Jharkhand, which may be taken as objective evidence that their art is shamanistic (figure 5). And the same images are to be seen in Upper Palaeolithic art, sometimes superimposed on animals, sometimes in isolation. In combination with the presence of enigmatic therianthropes, they are strong evidence that at least some of Upper Palaeolithic art is indeed shamanistic. These therianthropes were once dismissed as the product of 'a primitive mentality (that) failed to establish definitive boundaries between humans and animals', as John Halverson put it. If, instead, they are images experienced in a trance, they are as real to the Upper Palaeolithic painter as horses and bison.

The evidence mentioned above suggests that the rock art of eastern India, particularly southern Bihar and adjoining Jharkhand, is primarily shamanistic. The messages were addressed to the spirit. The shamans in a state of trance intended to communicate with the spirit world in order to acquire success in forthcoming hunts and other group activities. There are striking similarities between the above-mentioned rituals of the San tribe of southern Africa and that of the Santhal tribe of the southern Bihar and adjoining Jharkhand in eastern India. The shamans (Bhagats) and their female counterparts (Bhagtinis) still perform rituals in a similar manner. The only difference is that here a musical instrument, locally called a *dhole*, is played on such occasions and the locally available young he-goats or cocks are sacrificed instead of eland during various rituals performed in order to ward off calamities, getting relief from diseases, securing better yields in farming, etc. The shamans from local tribal villages can still be seen performing rituals on some important occasions at certain locations such as in front of painted rock shelters, engraved boulders or open-air village temples. I came to know such rituals being performed regularly at Domani pani near Rajabar (where figures of cattle including humped bulls are engraved on the sloping surface of a granite hillock) in Kodarma district and at Kohabarwa near Ranigadar in front of Rock shelter III.A.1 containing a panel of a village settlement besides other images in Nawada district as well as in front of an open-air temple outside a tribal village in Giridih district (figure 6).

Conclusions

The rock art of eastern India, particularly southern Bihar and Jharkhand, is very important and unique in many respects. It has distinct thematic, motivational and stylistic traits which distinguish it from other Indian rock art regions. A closer examination of its content, style, superimposition, state of preservation and other features indicate that the earliest rock art was produced here during the Upper Palaeolithic period by the hunter-gatherers, most probably by the ancestors of the present aboriginal Santhal tribe of this region. The tradition of producing rock art continued right from the Upper Palaeolithic period down to the early historic era. Like other places, rock art in this region was also produced with purpose and conveyed messages which were understood then and can be decoded even now. Though a very difficult and challenging task, it can be achieved to a great extent with intensive investigation. As mentioned earlier, I have been able to decode three symbols and geometric signs frequently found in the rock art of this region. Predominance of symbols, intricate and geometric signs, selection of only one rock shelter and cave for painting out of several rock shelters and caves available in a cluster, frequent depiction of therianthropes and wizards, ritualistic scenes and continued shamanistic practices prevalent in the present local tribal communities provide strong evidence that the rock art of this region is primarily shamanistic. In this regard rock art of this region resembles the art of the San tribe of southern Africa to a great extent. It appears that at least early rock art was the product of shamans in a state of trance. The images were a connection with a shamanistic spirit world and were depictions of what the shaman saw during his hallucination. The communication with the spirit world was sought to acquire potency and success in the forthcoming hunts and other group activities. Shamanistic rock art is nowhere so conspicuous elsewhere in India and maybe in the whole world as seen in eastern India and especially southern Bihar and Jharkhand. Shamanistic rock art is very different from Western art in execution and through it we may look at Upper Palaeolithic art in new ways.

References

Anati, E. (ed.)
2013 *Art as a source of History*, XXV Valcamonica Symposium 2013 Papers.
Bednarik, R.G.
1991 Asian Palaeoart and Eurocentric Science, *Purakala*, Journal of the Indian Rock Art Society, 2, pp. 71.
Leakey, R.
1996 The Language of Art, *The Origin of Humankind*, London (Phoenix, division of Orion Books), pp. 113-17.
Lewis-Williams, J.D.; Dowson, T.A.
1988 The Signs of All Times, *Current Anthropology* 29 (1988), pp. 202-45.
Mukherjee, B.N.
1997 Discovery of Kharoshti and Kharosti-Brahmi Inscriptions in Bihar, *Journal of the Asiatic Society* 39, No. 3-4, pp. 5-8.
Neumayer, E.
1993 The Rock Picture*s* of Early Hunters and Gatherers, *Lines on Stone – The Prehistoric Rock Art of India*, New Delhi (Manohar Publishers and Distributors), p. 43.
Pradhan, S.
2001 Rock Art in Orissa, *Rock Art in Orissa*, New Delhi (Aryan Books International, New Delhi), p. 26.
Prasad, A.K.
2003-4 Important Discovery of Prehistoric Rock Paintings, Ancient Inscriptions and Stone Age Tools in South Bihar and adjoining Jharkhand, *Puratattva* (Bulletin of the Indian Archaeological Society) 34, pp. 68-90.
2006 Rock Art in the Chotanagpur Hills: Regional Features**,** *Purakala*, Journal of the Indian Rock Art Society, 16, pp. 62-63.
2009 Continuum in the Rock Art of Eastern India,in Sankhyan, A.R. (ed.), *Asian Perspectives on Human Evolution*, New Delhi (Serials Publications), pp. 236-41.
2009 Important Discovery of Buddhist Antiquities In the Palaeolithic Caves of Magadha and Adjoining Jharkhand, in Sharma S.P.; Labh, B. (eds.), *The Ocean of Buddhist Wisdom,* New Delhi (New Bharatiya Book Corporation), pp. 244-50.
2012 Palaeolithic Context of the Giriak-Rajgir-Jethian Hills and Valleys, *Puratattva*, Bulletin of the Indian Archaeological Society, 42, pp. 104.
2012 Beginning of Cattle Domestication in southern Bihar and adjoining Jharkhand: Perspective of Rock Art and Archaeology, *Purakala*, Journal of the Indian Rock Art Society, 22, pp. 67-68.
2013 Interpreting some Symbols, Intricate Designs and Geometric Signs in the Rock Art of southern Bihar and adjoining Jharkhand in eastern India, in Anati, E. (ed.), *Art as a Source of History*, XXV Valcamonica Symposium 2013, Papers, pp. 359-365.
2014 Distinct Dominant Traits in the Rock Art of Eastern India with Special Reference to the Rock Art of Southern Bihar and adjoining Jharkhand, in Malla, B.L. (ed.), *Rock Art Studies: Concept, Methodology, Context, Documentation and Conservation,* Vol. 1, New Delhi (Indira Gandhi National Centre for the Arts and Aryan Books International), pp. 117-34.
Sankalia, H.D.
1974 Lower Palaeolithic Cultures, *Prehistory and Protohistory of India and Pakistan*, Poona (Deccan College, P.G. & Research Institute), p. 44.
Wakankar, V.S.; Brooks, R.R.
1976 Why Did They Paint?, *Stone Age Painting in India*, Bombay (D. B**.** Taraporevala Sons & Company), pp. 61-84.

Pleistocene figurative portable art from Apollo 11, southern Namibia

Riaan F. Rifkin
Post-doctoral Fellow, Evolutionary Studies Institute, University of the Witwatersrand, South Africa.

Introduction

The southern African Middle Stone Age (MSA) has been an important source of information concerning the cultural, behavioural and cognitive evolution of *Homo sapiens*. Of the many indicators of cognitive complexity that become prevalent during the MSA, the capacity for symbolic thought and the use of symbolism to mediate social behaviour provide definitive evidence for behavioural modernity. Abstract and figurative art present widely recognized media for assessing the early evolution of human cognitive modernity (Henshilwood, d'Errico, 2011). Figurative depictions explicate the deepest subconscious state of mind of the artist, while also visually organizing a shared culture through exchanging information.

Ages for southern African portable abstract art range from c. 500 ka (Beaumont,Vogel, 2008) to as recently as AD 1800 (Morris, Beaumont, 1994). Examples include engraved ochre from Klasies River Cave 1 at 85 ka (d'Errico *et al.*, 2012) and from Blombos Cave at 100–72 ka (Henshilwood *et al.*, 2009). Engraved ostrich eggshell fragments derive from Diepkloof Rock Shelter (Texier *et al.*, 2013), Klipdrift Shelter (Henshilwood *et al.*, 2014) and Apollo 11 Cave (Vogelsang *et al.*, 2010) in levels dated to between c. 85–52 ka. Following a hiatus of some 20,000 years for all types of art in southern Africa, seven stone plaques, four of which bear figurative imagery, were recovered during excavations at Apollo 11 Cave in Namibia. These are the earliest examples of African representational art, dated by radiocarbon and optically stimulated luminescence (OSL) methods to c. 30 ka (Wendt 1972, 1974, 1976; Jacobs *et al.* 2008; Vogelsang *et al.*, 2010). No coexistent examples exist, and figurative portable art only reappears after the Last Glacial Maximum (LGM) to become a recurring feature in southern African Later Stone Age (LSA) contexts.

Apollo 11 Cave

Apollo 11 Cave was excavated and first described by Wolfgang Erich Wendt (1972; 1974) in the late 1960s and early 1970s. The cave is located along the Nuob River in a limestone cliff face in the Huns Mountains of southern Namibia (Wendt 1972; 1974). Captivated during excavations by the radio coverage of the Apollo 11 spacecraft mission which returned to earth in July 1969, Wendt decided to name the site after the first successful lunar landing (W. Erich Wendt, pers. comm. 2014). The portable art derives from a confined anthropogenic horizon that marks the transition between the MSA and LSA and which has been dated to c. 30 ka. The media on which the imagery was created comprise variable types of laminar, micaceous, shale-derived schist plaques which are common in the

Fig. 1. Map of southern Africa indicating the location of Apollo 11 Cave in Namibia (a) and the map originally drawn by Wendt based on directions to the sites received from local farmers (b).

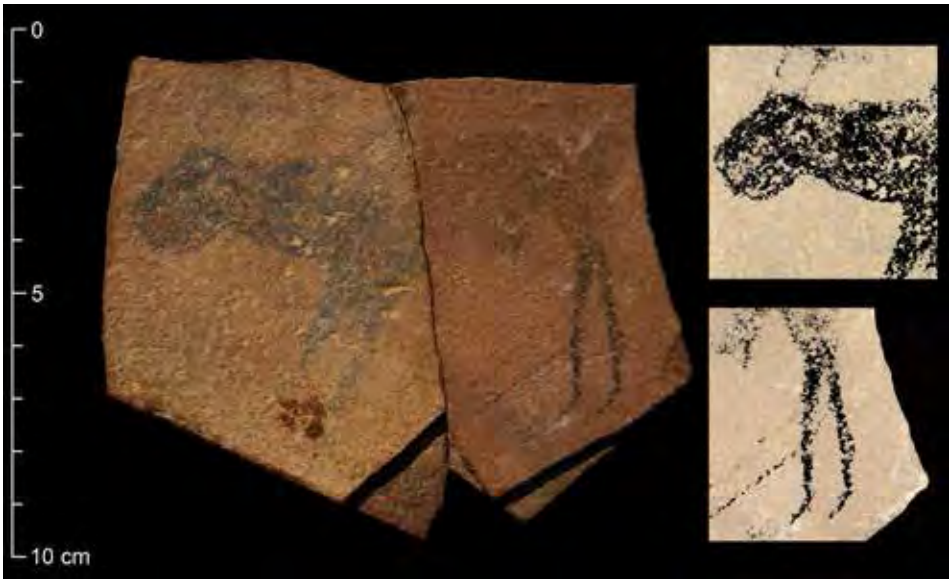


Fig. 2. AP1 and AP2 comprise an image of what has been widely referred to as a therianthrope. Digitally enhanced areas are indicated on the right.

vicinity of the shelter (figure 1).

Wendt (1974: 27) originally referred to the image on plaques 1 and 2 (labelled AP1 and AP2) as a depiction of a *raubkatze* or feline or, given the two horn-like features emanating from the top of the head, an oryx antelope (*Oryx gazella*). Pigments comprise mainly black and grey types but traces of orange and red colours are also visible (figure 2). Plaques 3(AP3) (figure 3) and 6 (AP6) contain partial depictions that most likely represent zebra (*Equus zebra*), although giraffe (*Giraffa camelopardalis*) and *strauß* or ostrich (*Struthio camelus*) have been presented as possible alternative species (Wendt, 1974: 28, 31). Resembling the black lines on AP3, the lines comprising the *nashorn* (Wendt, 1974: 29) or black rhinoceros (*Diceros bicornis*) on plaque 4 (AP4) appear to have been drawn over a translucent white pigment possibly applied in liquid form (figure 4). Wendt (1974: 30) also noted the presence of a *schwarzen tierkörpers* (black animal body) which may well represent a *springender bock* or springbuck or springbok (*Antidorcas marsupialis*) antelope on plaque 5 (AP5). One cannot discern an obvious figurative depiction, but the plaque does contain various superimposed traces of black, grey, white, orange and red pigments. Plaque 7 (AP7) comprise a *nicht eindurig erkennbaren* (Wendt, 1974: 32) or unrecognisable depiction, but traces of various black, white, orange and red pigments and several semi-circular remnants of what may represent dried-out traces of liquid paint drops are discernible.

Discussion

The Apollo 11 plaques provide much inspiration for discussions concerning prehistoric symbolism and religious beliefs. As is the case for early engraved objects and personal ornaments (Henshilwood *et al.*, 2009; d'Errico *et al.*, 2012; Texier *et al.*, 2013; Vanhaeren *et al.*, 2013), does the Apollo 11 portable art support the notion of the external storage of symbols and concepts? External symbol systems recurrently comprise non-linguistic but retrievable traces of information, and these may have radically altered the capacity and operation of human memory by making thoughts and memories increasingly durable and more easily retrievable and communicable (Donald, 1998; Hodgson, 2006; Woelert, 2012). Perhaps the Apollo 11 plaques provide evidence for the development and social circulation of mnemotechnical devices. These material

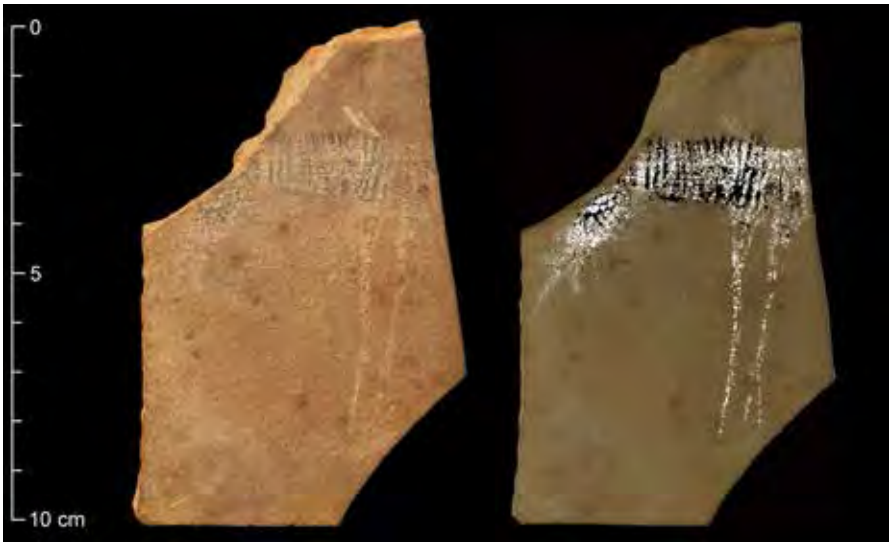


Fig. 3. AP3 is a fragment of a formerly larger stone slab and contain a partial depiction that conceivably represents a zebra. A digitally enhanced version is indicated on the right.

cultural memory-enhancing objects do not serve simply as passive external long-term storage mechanisms. Their role is dynamic in that such objects actively induce and engage memory and facilitate constant interaction within the entire cognitive-cultural system (Malafouris, 2004). Contrasted with biological working memory, which is limited in terms of its capacity to store and recollect vast amounts of information (Wynn, Coolidge, 2011), the externalization of concepts, religious beliefs and memories by way of abstract and representational art is a characteristic feature of extended cognition (Mithen, 2014).

Fig. 4. AP4 contains a possibly drawn outline depiction of what conceivably represents a black rhinoceros.

What where the images meant to convey? Based on the perceived combination of animal and human physical characteristics, an attribute widely associated with shamanistic cosmology (Lewis-Williams, 1981), several authors have referred to the depictions on AP1 and AP2 as therianthropic (Lewis-Williams, 1984; Vogelsang *et al.*, 2010). In southern African San rock art, depictions of therianthropes have been interpreted as humans disguised as animals (Thackeray, 1983), as portrayals of 'spirits-of-the-dead' (Solomon, 1997; Blundell, 2004) and as 'people of the early race' (Solomon, 1997). Reminiscent of the engraved zebra from Wonderwerk Cave (Thackeray *et al.*, 1981), the percussion marks on AP1 might also be interpreted in terms of 'sympathetic hunting magic', the belief in securing success in a prospective hunt or control over an animal through ritually 'wounding' an image (Thackeray, 2005). As the primary interpretation of therianthropes relates to shamans and their experiences of altered states of consciousness (Lewis-Williams, 1984, 2006; Blundell, 2004), the therianthrope on AP1 and AP2 has been construed as reminiscent of the ability to induce, experience and communicate altered states of consciousness (Lewis-Williams 1984). If this is indeed the case, it is to be expected that some degree of ideological and cosmological continuity exists between the MSA and the LSA (Lewis-Williams, 1985). The analyses of artefacts produced by the Early LSA inhabitants of Border Cave places the emergence of what is believed to represent modern hunter-gatherer adaptation at 44 ka (d'Errico *et al.*, 2012), supporting the notion that technological and cultural continuities exist between the MSA and the LSA.

Conclusion

Symbolic material culture is a rare but persistent feature during the MSA, although the role it played in mediating social relations is not clear. In the recent past, portable forms of art are a feature of reciprocal exchange relationships (Wiessner, 1983; Deacon, 1995) and serve to promote social relations (Mellars, 1996), especially within extensive networks comprised of isolated foraging groups (Perreault, Brantingham, 2010). Social ties among foragers are frequently cemented by the exchange of objects which may be of intrinsic value or tokens of relationships among individuals (Wiessner, 2002; Elias, 2012). Since relationship maintenance cannot rely on infrequent incidental contact, cultural scaffolding of group cohesion, such as the Apollo 11 portable art, could have allowed social and economic relationships to be maintained *in absentia* (Pearce, 2014). Whether this was the case for MSA and early LSA people remains speculative, but there is no reason to dismiss the notion that social unity was an important aspect of the lives of these early hunter-gatherer groups and that material culture, including art, personal ornaments and other exchange items served to mediate social relations.

Acknowledgements
I thank W. Erich Wendt for his time in discussing these remarkable finds. Permission to conduct this research was granted by the National Heritage Council of Namibia and the National Museum of Namibia. Magnus Haaland, University of Bergen, AHKR is thanked for digital enhancements. I acknowledge financial support provided by the Palaeontological Scientific Trust (PAST).

References

Beaumont, P.B.; Vogel, J.C.
2008 Discovering the deep African past at Wonderwerk Cave, *Quest* 4 (3), pp. 3-7.

Blundell, G.
2004 *Nqabayo's no-mans'-land: San rock art and the somatic past*, Uppsala (Uppsala University).

d'Errico, F.; Garcia Moreno, R.; Rifkin, R.F.
2012 Technological, elemental and colorimetric analysis of an engraved ochre fragment from the Middle Stone Age levels of Klasies River Cave 1, South Africa, *Journal of Archaeological Science* doi:10.1016/j.jas.2011.10.032.

Deacon, H.J.
1995 Two Late Pleistocene-Holocene archaeological depositories from the southern Cape, South Africa, *South African Archaeological Bulletin* 50, pp. 121-131.

Donald, M.
1998 Hominid enculturation and cognitive evolution, in: Renfrew, C.; Scarre, C. (eds.), *Cognition and material culture: The archaeology of symbolic storage*, Cambridge (McDonald Institute for Archaeological Research), pp. 7-17.

Elias, S.
2012 Origins of human innovation and creativity: Breaking old paradigms, *Developments in Quaternary Science* 16, pp. 1-13.

Henshilwood, C.S.; d'Errico, F.; Watts, I.
2009 Engraved ochres from Middle Stone Age levels at Blombos Cave, South Africa, *Journal of Human Evolution* 57, pp. 27-47.
2011 Middle Stone Age engravings and their significance for the debate on the emergence of symbolic material cultures, in Henshilwood, C.S.; d'Errico, F. (eds.), *Homo Symbolicus: The dawn of language, imagination and spirituality*, Amsterdam (John Benjamins), pp. 75-96.

Henshilwood, C.S.; van Niekerk, K.L.; Wurz, S.; Delagnes, A.; Armitage, S.L.; Rifkin, R.F.; Douze, K.; Keene, P.; Haaland, M.M.; Reynard, J.; Discamps, E.; Mienies, S.S.
2014 Klipdrift Shelter, southern Cape, South Africa: Preliminary report on the Howiesons Poort layers, *Journal of Archaeological Science* doi.org/10.1016/j.jas.2014. 01.033.

Hodgson, D.
2006 Understanding the origins of paleoart: The neurovisual resonance theory and brain functioning, *PaleoAnthropology* 2006, pp. 54-67.

Jacobs, Z.; Roberts, R.G.; Galbraith, R.F.; Deacon, H.J.; Grün, R.; Mackay, A.; Mitchell, P.; Vogelsang, R.; Wadley, L.
2008 Ages for the Middle Stone Age of southern Africa: Implications for human behaviour and dispersal, *Science* 322, pp. 733-735.

Lewis-Williams, J.D.
1981 *Believing and seeing: Symbolic meanings in southern San rock paintings*, London (Academic Press).
1984 The empiricist impasse in southern African rock art studies, *South African Archaeological Bulletin* 39, pp. 58-66.
1985 The San artistic achievement, *African Arts* 18 (3), pp. 54-59.
2006 Debating rock art: Myth and ritual, theories and facts, *South African Archaeological Bulletin* 61 183)), pp. 105-114.

Malafouris, L.
2004 The cognitive basis of material engagement: Where brain, body and culture conflate, in DeMarrais, E.; Gosden, C.; Renfrew, C. (eds.), *Rethinking materiality: the engagement of mind with the material world*, Cambridge (McDonald Institute for Archaeological Research) pp. 53-62.

Mellars, P.
1996 Symbolism, language, and the Neanderthal mind, in Mellars, P.; Gibson, K. (eds.), *Modelling the early human mind*, Cambridge (McDonald Institute for Archaeological Research), pp. 15-32.

Mithen, S.
2014 The cognition of *Homo neanderthalensis* and *H. sapiens*: Does the use of pigment necessarily imply symbolic thought?, in Akazawa, T.; Ogihara, N.; Tanabe, H.C.; Terashima, H. (eds.), *Dynamics of learning in Neanderthals and modern humans*, New

York (Springer), pp. 7-16.
Morris, D.; Beaumont, P.B.
1994 Portable engravings at Springbok Oog and the archaeological contexts of rock art of the Upper Karoo, South Africa, in Dowson, T.A.; Lewis-Williams, J.D. (eds.), *Contested images: Diversity in southern African rock art research*, Johannesburg (Witwatersrand University Press), pp. 11-28.
Pearce, E.
2014 Modelling mechanisms of social network maintenance in hunter-gatherers, *Journal of Archaeological Science* 50, pp. 403-413.
Perreault, C.; Brantingham, P.J.
2010 Mobility-driven cultural transmission along the forager-collector continuum, *Journal of Anthropological Archaeology* 30 (1), pp. 62-68.
Solomon, A.
1997 The myth of ritual origins? Ethnography, mythology and interpretation of San rock art, *South African Archaeological Bulletin* 52, pp. 3-13.
Texier, P.-J.; Porraz, G.; Parkington, J.; Rigaud, J.-P.; Poggenpoel, C.; Tribolo, C.
2013 The context, form and significance of the MSA engraved ostrich eggshell collection from Diepkloof Rock Shelter, Western Cape, South Africa, *Journal of Archaeological Science* 40, pp. 3412-3431.
Thackeray, J.F.
1983 Disguises, animal behaviour and concepts of control in relation to rock art of southern Africa, *South African Archaeological Society Goodwin Series* 4, pp. 38-43.
2005 The wounded roan: A contribution to the relation of hunting and trance in southern African rock art, *Antiquity* 79 (303), pp. 5-18.
Thackeray, A.I.; Thackeray, J.F.; Beaumont, P.B.; Vogel, J.C.
1981 Dated rock engravings from Wonderwerk Cave, South Africa, *Science* 214 (4516), pp. 64-67.
Vanhaeren, M.; d'Errico, F.; van Niekerk, K.L.; Henshilwood, C.S.; Erasmus, R.M.
2013 Thinking strings: Additional evidence for personal ornament use in the Middle Stone Age at Blombos Cave, South Africa, *Journal of Human Evolution*, doi.org/10.1016/j.jhevol.2013. 02.001.
Vogelsang, R.; Richter, J.; Jacobs, Z.; Eichhorn, B.; **Linseele, V.; Roberts, R.G.**
2010 New excavations of Middle Stone Age deposits at Apollo 11 rock shelter, Namibia: Stratigraphy, archaeology, chronology and past environments, *Journal of African Archaeology* 8 (2), pp. 185-218.
Wendt, W.E.
1972 Preliminary report on an archaeological research programme in South West Africa, *Cimbebasia* (B), 2, pp.1-6.
1974 Art mobilier aus der Apollo 11-Grotte in Südwest-Afrika, *Acta Praehistorica et Archaeologica* 5/6 (5), pp. 1-42.
1976. Art mobilier from the Apollo 11 Cave, South West Africa: Africa's oldest dated works of art, *South African Archaeological Bulletin* 31 (121/122), pp. 5-11.
Wiessner, P.
1983 Style and social information in Kalahari San projectile points, *American Antiquity* 48 (2), pp. 253-276.
2002 Hunting, healing, and hxaro exchange: A long-term perspective on !Kung (Ju/'hoansi) large-game hunting, *Evolution and Human Behavior* 23, pp. 407-436.
Woelert, P.
2012 Idealization and external symbolic storage: The epistemic and technical dimensions of theoretic cognition, *Phenomenology and the Cognitive Sciences* 11, pp. 335-366.
Wynn, T.; Coolidge, F.
2011 The implications of the working memory model for the evolution of modern cognition, *International Journal of Evolutionary Biology* doi:10.4061/2011/741357.

Why art?

Avraham Ronen
Professor Emeritus, Zinman Institute of Archaeology,
The University of Haifa, Israel.

Art, a visual expression of an event or an idea, appeared some 40,000 years ago. Artistic expression thrives in order to decipher, explain and organize the chaotic world of events and ideas. To understand more specifically the need art fulfils, we ought to ask what is worth expressing, what events are worth investing the time and effort art requires. The basic answer is, doubtless, life. But which frame of life?

Since humans have acquired the notion of time, art may express the present, the future or the past. The oldest indication in the human past that the notion of time was acquired is the recycling of stone artifacts at least half a million years ago, long before art. Recycling (that is, using old artifacts to shape new ones) alludes to the existence of former human beings and hence a past, or time in general.

Which frame of life does art depict? The present is dull and seems to be all too well known, its main features being understood with the support of religion. Timely rain is a gift of the gods. No rain, religion says, is because some women behaved badly or some youths had no respect for the elders. Furthermore, the present becomes past in a matter of minutes. With no mystery to decipher, the present seems unworthy of artistic intervention, which leaves the past and the future as the two bothering dilemmas, entirely unknown to us and hence worth artistic expression.

Fig. 1.

The future is a virtual black hole, too obscure to describe. The future may last for years but on the other hand, I may be dead in five minutes. What is there to present? The single meaningful riddle in the future is the moment of death. But death, merely 'known' as a faint guess, defies artistic depiction.

Fig. 2.

The major mystery in human existence, the only enigma worth deciphering, is the past. The past is known through fragmented memories of elders, tales of remote events and stories turned legends. Yet knowing the obscure past is imperative, for there lie our roots. It holds the answer to who we are, whence we came and perhaps, where we go. The past is the key to understand, and hence control, the world.

The past can be constructed only through words. Countless generations indeed used only words to tell the past. Later, art was called in to present the past as a motion picture. The bulk of art, therefore, depicts imaginary scenes, traditions and myths of the past. This suggestion is supported by the frequently noted absence in Palaeolithic art of scenes of daily life (Zűchner, 1995, 242), such as landscape, hunting, houses or humans.

Furthermore, the animal species depicted on the walls of caves differ from the species whose bones litter the floor, indicating the symbolic character of the depictions (Leroi-Gourhan, Allain 1979, 367). The artistic presentations differ between caves (Leroi-Gourhan, 1982, 74), indicating different tribal traditions or tribal 'histories', as suggested here.

The oldest sculpture of a human shows a male with a lion's head (figure 1). This is clearly a mythological

personage as admittedly, the artist had not seen in real life humans with lion heads. Similarly, the dead man in front of the charging bull in Lascaux cave (figure 2) is not realistic, but a legendary scene because the man has a bird's head. Art describes how the past might have been.

Acknowledgments
I wish to thank the Minerva Center for Interdisciplinary Studies of the End of Life at Tel Aviv University for supporting this research.

References

Leroi-Gourhan, A.
1982 *The Dawn of European Art*, Cambridge (Cambridge University Press).
Leroi-Gourhan, A.; Allain, J. (eds.)
1979 Lascaux Inconnu, *XII supplément Gallia Prèhistoire*.
Zűchner, C.
1995 Steinerne Karten – Topographische Darstellungen im vorgeschilchtlivhen Europa, *Gerhard Mercator Europa und die Welt*, Duisburg, pp. 241-251.

Rock art: when, why and to whom? Atlantic rock art in Galicia and northern Portugal

Manuel Santos Estévez
Post-doctoral Fellow FCT, CITCEM
Universidade do Minho, Braga, Portugal.

Iberian Atlantic rock art is part of a larger rock art region which is located in the north of Portugal, Galicia, Ireland and the north of the British Isles. It is characterized by the presence of cup-and-rings and lines, although in the Iberian Peninsula we also find representations of weapons (halberds, daggers, swords), human figures and animals – deer, horses and snakes – and smaller numbers of other minor motifs – labyrinths, triskelions, ships, etc.
Researchers have observed the concentration of engravings close to the coast in Ireland, Great Britain and Iberia. The most important concentrations of Atlantic rock art in the Iberian Peninsula are located mainly in the region of Rias Baixas (estuaries) and, in its more immediate vicinity, in the zones located less than 30 km from the coast. These carvings are almost exclusively in granite rocks located on hillside terrains with eroded soils, bad conditions for agriculture but appropriate for hunting and pasture land.
When?
Atlantic carvings have been dated from the Neolithic (Sobrino Buhigas, 2000 [1935]; Sobrino Lorenzo-Ruza, 1951; Shee Twohig, 1981; Bradley, 1997; Beckensall, 2002; Alves, 2008) to the Iron Age (Sobrino Buhigas, 2000 [1935]; Anati, 1968; Santos, 2012) from the fourth, maybe the fifth millennium BC, to the fourth century BC. But throughout this long time it is possible to distinguish three periods.
First period. The presence of complex circular designs of wide and deep grooves with considerable formal variety. The identifiable designs are basically cup-and-rings, combinations of concentric circles, irregular spaces delimited by grooves and full of dots, groups of dots occupying spaces made up of figures and sinuous and irregular lines (figure 1).
This type of carving is found in the north of the British Isles and in the northwest of the Iberian Peninsula. In the latter area, they are distributed

Fig. 1. Representative example of a panel from the Neolithic: Pedra dos Mouros in Marín.

around the northwest of Portugal and most of Galicia, although there is a higher concentration in the western half. Their chronology could range from the fourth millennium until the second half of the second millennium BC. Although the possibility of its continuity throughout the second millennium should not be completely discarded, this hypothesis deals with the matter of the production of rock art and not its use, which could have a broader timespan. Bradley proposes that carvings with circular designs prevailed from the Neolithic to the Early Bronze Age (Bradley, 1997: 140–50). Indeed, at the beginning of the Bronze Age a series of visible social changes in transformations of burials and domestic settlements took place which in the end led to the disappearance of rock carvings in the British Isles.

Second Period. Composed of petroglyphs with carvings of weapons, especially triangular-bladed daggers (figure 2), short swords, halberds and scutiforms, which may be portraying a standard. These compositions tend to comprise monothematic panels in which figures of other periods of the Atlantic style, such as circular designs or zoomorphs, rarely occur (Bradley, 1998: 249). These carvings are located exclusively in the northwest of the Iberian Peninsula. The chronology of the large majority of the engraved weapons relates to the Early Bronze Age, a period between the middle of the third millennium and the middle of the second millennium BC. This group of carvings, and those included in the third period, are not present in the British Isles.

Third Period. This includes practically all the quadrupeds, above all deer and horses. Panels are composed of narrative scenes, specifically hunting scenes (figure 3). It also includes labyrinths and some circular designs. During this period, smooth regular rock surfaces were used as well as slopes and even

Fig. 2. Rock art with Bronze Age weapons: Castriño de Conxo (Santiago de Compostela).

vertical rock surfaces. Other minority designs were incorporated, including triskelions, swastikas and so-called shovels. These rock carvings are located mainly in the western half of Galicia and on the Portuguese side of the Miño estuary. The chronology of this phase would belong to the first half of the first millennium, although its survival into the second half cannot be discounted.

Fig. 3. Rubbing of Río Vilar: panel with deer and a ship. (Image by Manuel Ledo).

Why?

One of the functions of rock art is to signify places, and thus give the landscape meaning. In the case of Iberian Atlantic rock art, this meaning could have been to control certain critical points of the landscape, to define sacred places, to regulate access to some resources, to define a territory and to regulate the transit across it. This process would have taken place in a historical context in which trading in certain prestigious goods played a part in the construction of social reality. Therefore, in communities without a state, which lacked some mechanisms of social control, the role of the symbolic and the ritual, among other resources, contributed towards generating social cohesion and maintaining power structures. These are functions that rock art, as iconographic artefacts and monuments, could have carried out very well. Areas with rock art were attractive to contemporary communities as they could be used for different purposes: subsistence and social aggregation, with a predominance of either or a combination of both.

Most of the rock carvings depicting Bronze Age weapons seem to have a connection with the sea, more specifically with the estuaries and natural harbours of the region of Rías Baixas on the Galician western coast. However, it should be noted that even so, the possible factors conditioning their location have not been exhausted. After having analysed the accessibility to and visibility over the rías, it seems that the principal reason motivating this connection to the sea was the control of transport and transit by sea. The situation of the carvings depicting weapons gives priority, on the one hand, to visibility so that they provide visual control over beaches with good conditions to function as ports. In addition, the sites provide a commanding general view over the rías. But other more monumental carvings with weaponscould have been aggregation sites (Vázquez Varela, 1995). These big petroglyphs are situated in the centre of hypothetical territories (Santos, 2010). The presence of monuments in certain places would be a way of materializing memory, thus producing tradition and consolidating links between groups within the same community and between the community and the territory.

Places with hunting scenes from the Early Iron Age (figure 4) could be worked to mark ritual areas where rites of passage took place. In many warrior societies, hunting is understood as a learning process of preparation for war. So, the warrior to be had to understand hunting as the emulation of combat.

Fig. 4. Deer hunting scene dated to the Early Iron Age: Laxe dos Carballos (Campo Lameiro).

To whom?

Atlantic rock art is located almost without exception in the passage area between the plains in the high

mountains and the valley lands, usually related to lines of movement from low to high lands; sometimes, especially in the most important groups, the engraved rocks tend to be placed near concave spaces naturally closed and located at the bottom of mountains (Bradley *et al.*, 1994a; 1994b; Santos, 2010; Santos, Criado, 2000). These concave spaces are basins with wetlands and they allow for the formation of natural pastures. More specifically, Iberian Atlantic rock art is outside the domestic settlements and outside neighbourhoods. So rock art not only is not connected to domestic activities and does not represent them, but it is also separated physically from them. We could say there is a coincidence between the petroglyphs' location and the possible activities that may happen around them, that is, activities related to the wild world and the world of the warrior and the hunter. Thus it is not strange that deer hunting and weapons are the most recurrent topics and the preponderance of male figures in this period rock art is clear.

If we take into account the location and iconography of these carvings it is possible to propose that these panels were made to be observed by only a part of society. Location away from domestic settlements could be related to sacred activities made by and oriented towards males dedicated to war and the hunt. Places with monumental carvings could be aggregation sites and places for negotiation, exchanges, encounters and rites of passage for young males.

References

Alves, L.B.

2008 O Sentido dos signos. Reflexões e Perspectivas para o Estudo da Arte Rupestre do Pós-Glaciar no Norte de Portugal, in de Balbín, R. (ed.), *Arte Prehistórico al Aire Libre en el Sur de Europa*, Actas del curso Arte Rupestre al Aire Libre, Investigación, Protección y Difusión, Junta de Castilla y León (Salamanca Junio 2006), pp. 381-413.

Anati, E.

1968 *Arte Rupestre nelle regioni occidentali della Penisola Iberica*, Capo di Ponte (Edizioni del Centro).

Beckensall, S.

2002 British Prehistoric Rock-Art in the Landscape, in Nash G.H.; Chippindale, C. (eds.), *European Landscapes of rock art*, London (Routledge), pp. 39-70.

Bradley, R.

1997 *Rock Art and the Prehistory of Atlantic Europe,* London (Routledge).

1998 Invisible warriors, Galician weapon carvings in their Iberian context, *A Idade do Bronze en Galicia: Novas Perspectivas*, Cuaderno do Seminario de Sargadelos 77, Sada (Edicións do Castro), pp. 243-58.

Bradley, R.; Criado Boado, F.; Fábregas Valcarce, R.

1994a Rock art research as landscape archaeology: a pilot study in Galicia, northwest Spain, *World Archaeology* 25 (3), pp. 374-90.

1994b Los petroglifos gallegos como forma de apropiación del espacio: algunos ejemplos gallegos. *Trabajos de Prehistoria* 51(2), Madrid, pp. 159-68.

Santos Estévez, M.

2010 The Spaces of Representation and the Domestication of Landscape in Rock Art Societies, *Representations and Communications. Creating an Archaeological Matrix of Late Prehistoric Art,* Oxford (Oxbow), pp.144-57.

2012 Atlantic Rock Art: transformation and tradition during Late Prehistory, in Cruz Berrocal, M.; García Sanjuán, L; Gilman, A. (eds.), *The Prehistory of Iberia: Debating Early Social Stratification and the State*, London (Routledge).

Santos Estévez, M.; Criado Boado, F.

2000 Deconstructing rock art spatial grammar in the Galician Bronze Age, in Nash, G.H. (ed.), Signifying Place and Space. World perspectives of rock art and landscape, *BAR International Series* 902.

Shee Twohig, E.

1981 *The Megalithic Art of Western Europe*, Oxford (Clarendon Press).

Sobrino Buhigas, R.

2000 *Corpus Petroglyphorum Gallaeciae*, Reedición facsimilar del original de 1935, Santiago de Compostela (Ediciós do Castro).

Sobrino Lorenzo-Ruza, R.

1951 Términos *ante quem* de los petroglifos del grupo gallego-atlántico, *El Museo de Pontevedra* 6, pp. 9-26.

Vázquez Varela, J.M.

1995 *Antepasados, guerreros y visiones. Análisis antropológico del arte prehistórico de Galicia,* Deputación Provincial de Pontevedra.

Oum La Leg, a rock art site in the Moroccan Anti-Atlas: who did the engravings, when and why?

Susan Searight-Martinet
Rock Art researcher, Casablanca, Morocco.

Presentation

The engravings of the southern Moroccan site of Oum La Leg lie on a low, U-shaped sandstone ridge, some 3 km long, about 40 km north of the River Draa. To the north stretches the 500-km long sandstones of the Jbel Bani (around 1,000 m in this section). The Jbel Bani, the last upheaval of the Anti-Atlas massif, dominates a number of narrow plains, where the occasional torrential rains have left alluvial deposits

The site commands wide views all round, except to the immediate north, where the plain is limited by relatively high massifs. Rivers originating in the Anti-Atlas probably ran regularly when the climate was wetter, and the now barren plains around the site could have supported a grass steppe until the drying up of the Sahara from around 2500 BC.

Who did these engravings?

If the main theme of the 450 engravings is anything to go by, the creators of these images were hunters. A total of 85% of the images were identifiable as animals (including birds). If the 75 non-identified animals and the 37 birds are excluded, the remaining 60% are seen to be wild, over half of them game animals, in the shape of antelopes or assimilated. Domestic cattle numbered 15%, showing that the engravers were also, to a much lesser extent, herders. The wild animals represented included (in decreasing numbers): rhinoceros, elephant, two giraffes and two possible monkeys.

They were probably nomadic, moving around with the wild game, following the best pasturage, coming back periodically to the same site. Perhaps they added new engravings when they returned. In this case, the periods between one set of engravings and the next were certainly too short to produce any differences in the depth of patination of the images.

The people using the Oum La Leg site are seldom illustrated. When they are, they are seen twice as hunters – wielding an axe just behind an elephant, or holding a bow behind an antelope – and once as a shepherd leading a sheep (a second shepherd was removed shortly after the site was discovered in 1969). No facial details or clothing are given.

The engravings are small: 30–35 cm on average, excluding tails (with four exceptions). The vast majority is polished, the others pecked. The line is firm, some 3–4 mm deep. The style is that known as Tazina, the chronology, origin and extension of which are not clear. Even an early definition (with specifications such as thin, exaggerated legs, tails and horns) is often ignored in favour of attaching the label 'Tazina' to any small, polished animal regardless of the fact that its legs are short and stumpy and its tail short, as is the case for almost all rhinoceros, and the elephants' legs, tail and trunk are anatomically normal.

In a detailed study of the site published in 2004 (Searight, 2004), the site is described as containing a clear majority of Tazina style engravings, using the term in its broadest sense.

When were they made?

Having determined, according to the preferred themes, that the engravers were principally hunters, favouring the Tazina style, the chronostratigraphy of this style can be examined.

If the overall sequence of rock art periods, from the Naturalistic Bubaline down through the Bovidian, the Horse Period, the Libyan Warrior to the Camel Period, is generally accepted in studies of North African rock art, the position of the Tazina style/period is not so clear. For Muzzolini (1995), the Tazina school followed the Naturalistic Bubaline period, slightly overlapping its final stage. This relative chronology does not of course imply a break between the different periods, but smooth transitions and overlaps.

As yet, no firm dates can be attached to any of this relative chronology. Populations could have started engraving on the site – using the Tazina style, the oldest so far recognized – some time around 4000 BC, when the climate became humid again. They could have continued there for a millennium or so, until increasing aridity drove away the fauna. But taking into consideration a number of factors, it is more likely their beginnings should be placed later, perhaps nearer 3000 BC.

Recent in-depth research on the levels of patination of the sandstone slabs at Oum La Leg has established that the engravings were carried out during a humid period. Again this would make a beginning for the Tazina engravings possible from 4000 BC, although as said earlier a later date is preferred.

For how long did this ridge continue to be engraved? None of the items which found their way into Morocco in the late and early years of the 2nd and 1st millennia, such as copper or bronze weapons, chariots, the ridden horse, inscriptions in the ancient pre-Tifinagh alphabet, were recorded on the site. An axe or two occurred on other Tazina sites, which has encouraged researchers to propose a late date for the start of this style (without clarifying the meaning of late). Such rare items could equally well indicate a long use of the sites concerned.

All in all, it would be safe to say that the Oum Leg site was probably in full activity from around 3000 BC to 1500 BC. Direct dating of the engravings, or more precise indirect methods, would pinpoint the position more satisfactorily.

Why were they made?

Theories on why past populations painted and engraved rocks and cave walls and what they meant are as numerous and varied as the researchers studying the images. Few today, however, would deny they are messages. To whom are they addressed and what is the message they are conveying?

The same answers do not apply to every site and every period. The most recent rock art manifestations in Morocco, those showing battles between armed horsemen and foot soldiers, and hunting scenes involving Barbary sheep or leopards (the Libyco-Berber sites of Foum Ech Chenna in southern Morocco and the Jbel Rat site in the High Atlas site) have nothing in common with Oum La Leg.. Nor have the High Atlas, Bronze Age, life-sized engravings of warriors surrounded by daggers, personifying an aristocratic, individualistic society.

The messages transmitted by the Oum La Leg engravings, the work of visibly peaceful hunting communities, are not commemorating epic battles between rival tribes, nor recalling heroic figures. While images may contain several meanings, at different levels of comprehension, it is reasonable to suppose that here they are addressed primarily to other neighbouring groups using the same language. These groups might be all those using the distinctive Tazina style, or simply closer tribes.

The engravings were clearly visible, overlooking plains where wild and domesticated animals grazed together. While small, they were meant to be seen. The message in the first place might be territorial markers, a sort of 'Trespassers will be Prosecuted' sign, indicating that game animals in the area were for the exclusive use of the Oum La Leg inhabitants. A signal that other hunting groups were to keep away? This is the most obvious reason for engraving what they must have felt precious, whether wild game for subsistence or cattle for numerous other needs.

The images might conceivably be in the nature of an inventory of what the region held. And a reminder that rhinoceros were also around, and that with elephants they could cause a lot of trouble in the pasturages. On the other hand, carnivorous predators seem to have been absent, or at any rate not recorded.

Conclusion

The people who engraved on the Oum La Leg were hunters. They also owned cattle but game hunting was their main occupation. Their engravings in the Tazina style were made during a humid period, which could have been anywhere between 4000 and 2000 BC. The absence of the domestic horse and its riders, metal weapons, chariots and early tifinagh inscriptions, which were introduced into Morocco in the late 2nd and early1st millennia, precludes production much after 2000 BC.

The most obvious and simplest message was one of communication. Information to other groups that the site and its adjacent animals was their property. For all we know, hunting rights may have been given, but basically the area belonged to the Oum La Leg people.

References

Muzzolini, A.

1995 *Les images rupestres du Sahara*, Toulouse (ed. Author).

Searight, S.

2004 The Prehistoric Rock Art of Morocco. A study of its extension, environment and meaning, *BAR International Series*, 1304.

Connecting the dots: cupules and communication in the English Lake District

Kate E. Sharpe
Department of Archaeology, Durham University, Durham, UK.

A new corpus of rock art has recently emerged in the northwest of England. Targeted surveys and chance discoveries have revealed around 35 decorated panels on the hard, igneous rocks of the Lake District in the county of Cumbria (Beckensall, 2002; Brown; Brown; Sharpe, 2012; Style, 2011). All of the panels lie within a region defined as the Cumbria High Fells (Natural England, 2010). During the British Neolithic period these crags were also the focus of another reductive use of stone: the production of axe-heads. Outcropping around the mountain summits is a ribbon of fine-grained andesitic tuff, a distinctive raw material which drew the attention of prehistoric stone-workers. This paper suggests a possible relationship between the carved panels and the movement of prehistoric people around this challenging landscape in pursuit of the precious stone at its heart.

The panels

This new group of open-air panels is set in a dramatic, glacially-shaped, volcanic landscape. The majority are decorated with simple cupules ranging from small clusters of fewer than five, to scatters of more than a hundred (figure 1). Cup diameters range from 2 cm to 10 cm, most being 3–5 cm. Linear grooves appear only on a few panels, although several appear to incorporate or respect natural fissures; rings are found on only two panels. The cupules are frequently added to the ice-smoothed uppermost surface of large outcrops, particularly the wedge-shaped forms known as *roche moutonnée* or those with a domed, whaleback profile. Most panels are located either on or just above the valley floor (50% are below 200 m OD). With the exception of two panels in Great Langdale (to which I will return), they are situated close to one of the long finger-lakes that occupy the deep, ice-scoured valleys that radiate from the central mountains (23 are within 1 km; 7 are within 500 m of the lake shore).

Although widely dispersed across a large area (c. 30 km x 20 km) and in valleys divided by mountainous terrain, the panels reflect similar choices made by the people who created them; these low-lying outcrops with their simple scatters of cupules are distinct from rock art in neighbouring regions. Immediately to the east, along the valley of the river Eden, a different form of rock art dominates. Here, more complex multi-ringed motifs, spirals and chevrons are found on boulders in monumental (including burial) contexts, with a high proportion of fragments and portable pieces. These examples are likely to be related to ritual activities focused on the confluence of the rivers Eden and Eamont, and represent a complex palimpsest with some carved stones potentially re-deployed several times, and others having later monuments

Fig. 1. Typical glacially-smoothed outcrops with cup-mark scatters. Right: Rydal (image by P. Style); left: Barber's Rock, Loweswater with view over Crummock Water towards Central Fells and stone quarries.

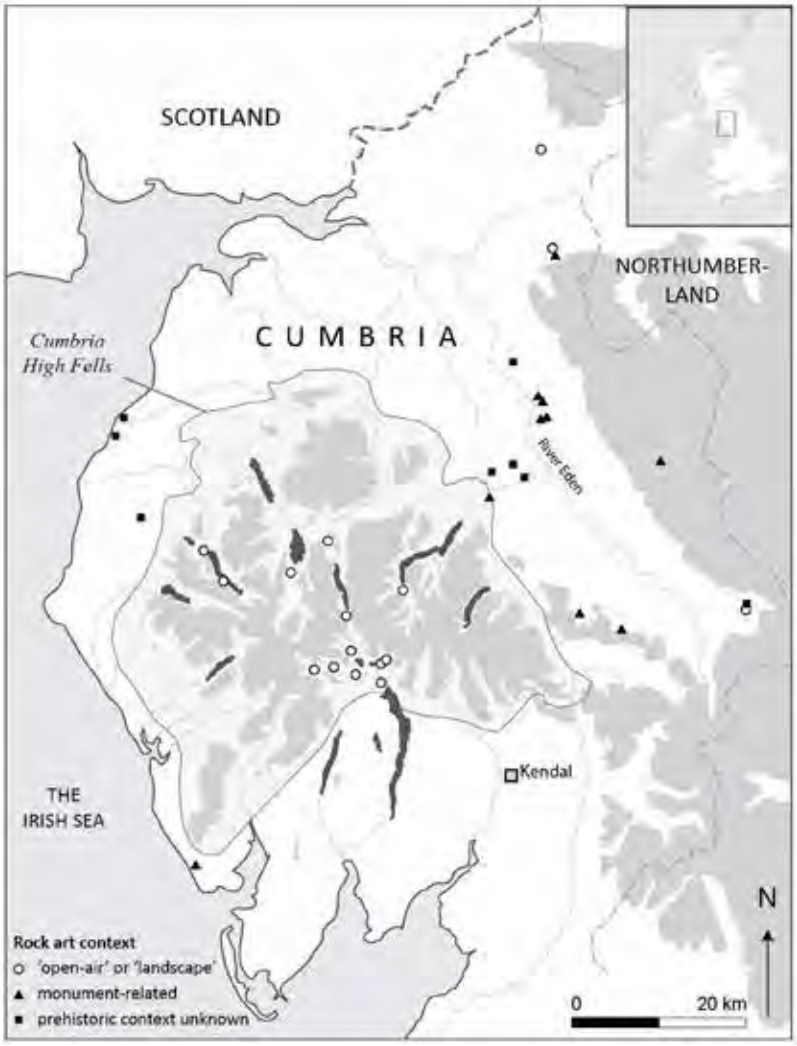


Fig. 2. Map showing the discrete distribution of rock art landscape and monumental rock art, and its relation to stone quarries, stone axe heads, early monuments, and probable concentrations of settlement in the Neolithic period. (After Style, 2009: 42). Shading indicates land above 250 m OD.

built around them. By contrast, there are few finds or features close to the Lakeland outcrops, and little positive evidence for an association with either ritual or domestic activity of any period. Indeed, the absence of monumental art in the central fells, and the corresponding lack of cup-marked outcrops in the Eden valley, suggests that in these neighbouring (but geologically and topographically distinct areas) the rock art was deployed for very different purposes.

Rock art in the landscape

Rock art in open, landscape contexts has been associated with the establishment and continued negotiation of relationships between people and the landscapes they inhabited. The permanent creation of places and the marking of paths between them was an important process in the transition from a mobile to a sedentary way of life. Embellished surfaces, particularly on distinctive outcrops or immovable boulders, would have become fixed and familiar points within these networks, providing enhanced natural landmarks, commemorating significant sites, or fixing events both within the landscape and within the shared memory of the community. Might the cup-marked outcrops of the Lake District have had a similar role, marking significant places and reflecting enduring relationships between the landscape and the people who travelled around it?

The distinctive and visibly prominent forms of the favoured outcrops make the Lake District cup-marked outcrops clearly discernible, even in the valley bottom. Many of the panels offer extended views along their valleys, both in towards the craggy mountain peaks and out towards the lower fells and more gentle landscapes around the periphery. The long stretches of open water of the lakes provide extended sight lines with the high mountain profiles clearly visible above the trees, aiding navigation to and from the central fells. But why were people moving around the Lake District in the prehistoric period?

Seasonal movement

Evidence from monuments and material culture, particularly stone axe-head distribution (Style, 2009), indicates that Neolithic settlers favoured the west Cumbria coastal plain, the Eden valley and the Solway estuary (figure 2), a pattern supported by indications of forest clearance and crop cultivation. There is little evidence of a permanent human presence in the Cumbrian high fells. The valley floors and lake margins remained largely forested, although intermittent firing of vegetation suggests seasonal grazing of higher pastures (Pearsall; Pennington, 1973). It is likely that transhumance was practised between the lowlands and highlands with domesticated cattle and/or wild deer herded, or wild animal movements followed as they broke trails through the vegetation. Bradley and

Edmonds (1993) suggest that such forays may have led to the discovery of the highly regarded stone sources in the central mountains.

The exploitation of Group VI stone for the manufacture of stone axe-heads began in the Early Neolithic (Bradley; Edmonds, 1993; Hedges *et al.*, 1994). As processes developed, roughed-out stone was moved from working sites at the mountain summits to lowland finishing sites. With intensification of production, more complex social and physical networks would have grown across the region. Trails through the landscape created by early pastoralists perhaps became more established with repeated use by quarry workers moving into the fells and returning with roughed-out stone, as part of the seasonal round. Bradley and Edmonds argue that there is reason to suppose that the earlier phases of stone working at Langdale were 'embedded into a wider cycle of summer land use' (Bradley; Edmonds, 1993: 141). Pearsall and Pennington also suggest that 'the men who worked the factories are likely to have pastured animals in forest clearings' (1973: 230). This concept of seasonal journeys to stone quarries is well-supported by ethnographic data (e.g. Burton, 1984; Petrequin; Petrequin, 2011). It can certainly be applied to Langdale where expeditions to the mountain summits may only have been feasible during the summer months, with better visibility and extended daylight. Quarrying activities are likely to have been the focus of major social and ritual activities, attracting participants in both active and supporting roles, along the journey and during the production process. Might the Lakeland outcrop carvings have been made by groups making these regular journeys, following the long valleys which connected lowland settlements with central stone quarries?

Route-ways in a mountain landscape

The extraction, finishing and distribution of stone axe-heads demanded a network of communication and movement that has been studied in some detail both at a local level and in a wider context (Bradley; Edmonds, 1993; Claris; Quartermaine, 1989; Cummins, 1979; 1980; Edmonds, 1995; Manby, 1965; Davis; Quartermaine, 2007). The location of quarries and finishing sites, together with finds of roughed-out and polished axe-heads, and polissoirs have provided insight into the immediate geography of these processes, with routes postulated between stone sources, population centres, and exchange nodes, such as stone circles. These routes are largely speculative, and the exact locations of prehistoric pathways are difficult to prove. Yet the exaggerated topography of the Cumbrian high fells region both restricts and facilitates progress, channelling the traveller along particular paths and creating natural corridors of movement. At the start of the Neolithic period only the very high slopes above 660 m were free of trees. Sediment samples suggest that the lake valleys were not cleared of woodland until the second millennium BC (Pearsall; Pennington, 1973: 226–236; Pennington, 1970), but it is likely that vegetation would have been

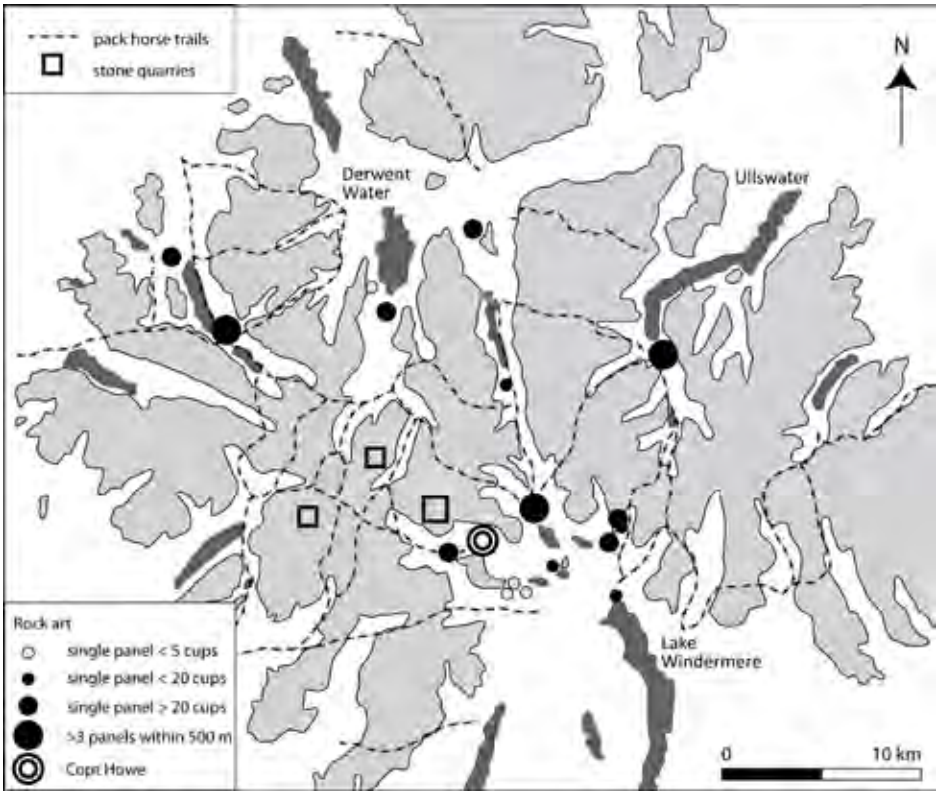


Fig. 3. The relationship between carved outcrops, valleys and mountain routes over passes between valleys. (After Hindle, 1984: fig. 5.8).

Fig. 4. Complex motifs on panel at Copt Howe (insert after Beckensall, 2002) with the Langdale Pikes behind (site of stone quarries).

less dense immediately along the shores of the lakes, some of which have a gravel beach, providing an easier and more direct route along the valley. This would have been particularly important if a successful season of quarrying resulted in a heavy pack of roughed-out axe-heads.

The location of a number of cup-marked outcrops on or just above the valley floor is strongly indicative of lowland movement; their position at the head or tail of the lake may also suggest that the lakes themselves served as highways for those with water transport. The population centres described above are all either riverine, lacustrine, or coastal/ estuarine locations, indicating that the exploitation of water-based resources, important during the Mesolithic, played a key role well into the Neolithic period. The communities occupying these settlements are likely to have used the coastal waters, lakes and larger rivers as part of their social networks (Callaghan; Scarre, 2009; Casson, 1994; Cummings; Fowler, 2004; Johnstone; McGrail, 1980; Sherratt, 1996). Indeed, dug-out canoes were in use on the tarns and lakes of the highland zone as well as on the lowland rivers and estuaries (McGrail, 1978); Cumbria has one of the oldest examples of such a craft C14 dated to the Middle Bronze Age (Ward, 1974).

Between the valleys

Although the glaciated valleys and lakes are the most accessible natural routes, convenient for travel directly to and from the central fells, they do not facilitate movement between valleys. Yet the close similarities between the carved outcrops across the region suggest that the communities frequenting the mountains had a shared understanding of the rock art they created, using the same rules to select and enhance suitable surfaces. This common practice may have arisen through the exchange of ideas during quarrying expeditions, but may also indicate a degree of travel between the valleys in addition to movement along them. Such journeys would require an intimate knowledge of the local terrain in order to avoid streams, bogs, or dangerous precipices. Experience accumulated over generations would be crucial. Today, hikers often rely on cairns, built up by fellow walkers, to guide them in poor weather; better yet, a well-trodden path, representing invaluable knowledge built by long experiment. If such trails were indeed established by early hunter-gatherers, pastoralists, or stone-workers, it is likely that given the limited options available, they would have been adopted by subsequent travellers navigating the fells. In the very restrictive landscape of the Cumbrian high fells, these paths may have been followed for

generations (Taylor, 1979: 153).
The earliest known roads in Cumbria are Roman, and made good use of natural passes between the mountains. A number of these routes were subsequently followed for many years by traders with pack-horses, who established an extensive network of trails through the central fells characterized by the distinctive pack-horse bridge (Hindle, 1984: fig. 5.8). If the distribution of the rock art panels is mapped against these routes, a strong correlation is revealed between key junctions in the network and the carved outcrops (figure 3). Many of the cup-marked panels in the valley bottom are located at nodes where several pack-horse routes converge; those set at slightly higher elevations lie within metres of these ancient tracks. The panels appear to be located both on the arterial routes of the main valleys, and also at key sites with regard to inter-valley communication.

Rock art and rough-outs

A number of researchers have linked rock art with social and ritual aspects of axe production in prehistoric Europe, for example in Norway (Bruen Olsen; Alasker, 1984; Mandt, 1995). Here it is argued that the discrete distribution patterns for axes from each quarry define distinct social territories, the rock art clusters marking sites of periodic gatherings during which collective activities, including the production of stone tools, took place. In Cumbria there is reason to make similar connections.
The valley of Great Langdale lies at the heart of the stone-axe production area, penetrating deep into the central fells and providing direct access to an exposure of the desirable Group VI tuff at the summit of the Langdale Pikes. Just 2 km from the foot of the Pikes, beside the Langdale Beck, is a group of enormous boulders. The vertical face of one large block is decorated with a striking array of complex motifs, including concentric rings, chevrons and parallel lines (figure 4), the only example in the Cumbrian high fells region to have an elaborate design. From this (and only this) position in the valley the summer solstice sunset is spectacular, with the sun appearing to roll down the side of the highest of the five Langdale Pikes. The combination of complex, passage tomb-style motifs on the vertical face of this monumental piece of rock, together with the solstitial connection, makes this a significant site which was surely known to groups passing along the valley to and from the mountains. It was perhaps also related to rituals associated with the dangerous practice of extracting stone from the precipitous slopes around the mountain summit (for a more detailed discussion see Sharpe, 2007; 2008; Sharpe; Watson, 2010).

Discussion: when, why and to whom?

The association of the carvings with seasonal route-ways implies they were made by partially mobile communities, the stone-axe producing people who lived around the coastal areas of Cumbria during the Neolithic period in the third millennium BC. These groups were beginning to mark significant sites and create more permanent places with which they identified. The cup-marked outcrops may thus represent an early stage in the development of monuments, with rock art providing a means to enculture the natural landscape (Bradley, 1998; Scarre, 2002; Sherratt, 1990; Tilley, 1996). The marking of these natural rock outcrops may have begun the process of transformation of natural spaces into constructed places.
The distinctive situations selected and striking resemblance in style across the Lakeland panels appear to reflect common practices and shared ideologies, suggesting that the cup-marked locations held a similar significance for the various communities that created them. In selecting outcrops situated close to the head or tail of a lake, Neolithic cupule-makers may have been assisting with the practicalities of movement along the valleys, marking places where travellers might break their journey and make temporary camp. The location of the panels on nodes at the foot of natural routes over passes between valleys also suggests that movement around the fells was not restricted to the more obvious corridors radiating from the fells, and perhaps indicates a strong social network between different groups visiting the central fells from their peripheral lowland homes. The carved outcrops possibly marked places where groups congregated and either crossed paths or continued their journeys together. As places where people converged, arriving either on foot or by water, along the valley or from a mountain pass, setting out or heading home, these locations would have been important settings for the exchange of news of activities at the quarrying sites:

successes and disasters, new techniques and social interactions.

Expeditions into the mountains would have represented a step away from familiar, safe surroundings and as such may have been extremely arduous, requiring knowledge of routes and the location of resources, as well as the technical skills of quarrying. The cup-marked panels may have played a role in the successful outcome of these journeys, having a ritual and/or spiritual role, protecting or sanctifying locations or activities by ensuring the goodwill of local spirits or enlisting the help of ancestors. For people travelling on the lakes, the outcrops may also have marked a transition from the spiritually-loaded element of the water to the more earth-fast part of their journey, and vice versa. The watery, marshy locations would have provided rich resources, but are also suggestive of water-related ritual activities (O'Sullivan; Sheehan, 1993). Certainly, the elaborate panel at Copt Howe which connects the solstitial sunset with the stone quarries would suggest an element of annual activity, perhaps marking the optimum time for securing stone from the high peaks, and creating a threshold controlling passage into these special mountains.

Ultimately, the specific motivations of the people who carved the cupules, the responses of those who experienced them and the activities associated with these sites are perhaps beyond our reach, certainly without more focused excavation. However, by contextualizing the rock art within the known archaeological framework we can perhaps begin to close the gap in our understanding. At the very least, it is hoped that this potentially significant new component of the prehistoric landscape in central Cumbria will in future be fully integrated into analyses of Cumbrian prehistory, and ultimately into wider studies of the Neolithic in northern Britain.

Acknowledgements

Thanks are due to all the intrepid discoverers of rock art in the Lake District who have helped to re-draw the map of carvings in the Cumbrian high fells. I would especially like to thank Peter Style who has identified several new panels and whose own research helped to shape the discussion presented. I would also like to acknowledge the co-operation of all the landowners who allowed repeated visits for searching, recording and checking of cup-marked outcrops on their property. This paper is based on PhD research undertaken at the University of Durham, supported by the Arts and Humanities Research Council.

References

Beckensall, S.
2002 *Prehistoric rock art in Cumbria*, Stroud (Tempus).

Bradley, R.
1998 *The significance of monuments. On the shaping of human experience in Neolithic and Bronze Age Europe,* London (Routledge).

Bradley, R.; Edmonds, M.R.
1993 *Interpreting the axe trade: production and exchange in Neolithic Britain*, Cambridge (Cambridge University Press).

Brown, P.; Brown, B.
2008 *Prehistoric rock art in the northern dales*, Stroud (Tempus).

Bruen Olsen, A.; Alasker, S.
1984 Greenstone and diabase utilisation in the Stone Age of Western Norway, *Norwegian Archaeological Review* 17: 71–103.

Burton, J.
1984 Quarrying in a tribal society, *World Archaeology* 162: 234–47.

Callaghan, R.; Scarre, C.
2009 Simulating the western seaways, *Oxford Journal of Archaeology* 28: 357–72.

Casson, L.
1994 *Ships and seafaring in ancient times,* London (British Museum Press).

Claris, P.; Quartermaine, J.
1989 The Neolithic quarries and axe factory sites of Great Langdale and Scafell Pike: a new field survey, *Proceedings of the Prehistoric Society* 55: 1–25.

Cummings, V.; Fowler, C. (eds.)
2004 *The Neolithic of the Irish Sea: materiality and traditions of practice,* Oxford (Oxbow).

Cummins, W.A.
1979 Neolithic stone axes: distribution and trade in England and Wales, in Clough, T.H.M.; Cummins, W.A. (eds.), *Stone axe studies*, Vol.1, Research Report No. 23, London (Council for British Archaeology), pp. 5–12.

1980 Stone axes as a guide to Neolithic

communications and boundaries in England and Wales, *Proceedings of the Prehistoric Society* 46: 45–56.

Davis, V.; Quartermaine, J.

2007 Widening the horizons. Recent discoveries of axe factories in the Lakeland fells, in Cherry, P. (ed.), *Studies in Northern* Prehistory, Cumberland and Westmorland Antiquarian and Archaeological Society, Extra Series Vol. 33. Kendal (Titus Wilson & Son).

Edmonds, M.R.

1995 *Stone tools and society: working stone in Neolithic and Bronze Age Britain*, London (B.T. Batsford).

Fairen-Jimenez, S.

2007 British Neolithic rock art in its landscape, *Journal of Field Archaeology* 32 (3): 283–95.

Hedges, R.E.M.; Housley, R.A.; Bronk Ramsey, C.;Van Klinken, G.J.

1984 Radiocarbon dates from the Oxford AMS System: Archaeometry Datelist 18, *Archaeometry* 36 (2): 337–74.

Hindle, B.P.

1984 *Roads and trackways of the Lake District,* Ashbourne (Moorland Publishing).

Johnstone, P.; McGrail, S.

1980 The seacraft of prehistory, London (Routledge and Kegan Paul).

Manby, T.

1965 The distribution of rough-out 'Cumbrian' and related axes of Lake District origin in Northern England, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, Second Series 65: 1–37.

Mandt, G.

1995 Alternative analogies in rock art interpretation: the West Norwegian case, in Helskog, K; Olsen, B. (eds.), *Perceiving rock art: social and political perspectives*, Oslo, Novus (The Institute for Comparative Research in Human Culture), pp. 263–91.

McGrail, S.

1978 *Logboats of England and Wales,* British Archaeological Reports British Series 51: Oxford.

Natural England

2009 National Character Areas, viewed 17 May 2010, <http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/default.aspx>

O'Sullivan, A.; Sheehan, J.

1993 Prospection and outlook. Aspects of rock art on the Iveragh Peninsula, Co. Kerry, in Shee Twohig, E.; Ronayne, M. (eds.), *Past perceptions: the prehistoric archaeology of South-West Ireland*, Cork (University of Cork Press), pp. 75–84.

Pearsall, W.H.; Pennington, W.

1973 *The Lake District: a landscape history*, London (Collins).

Pennington, W

1970 Vegetational history in the North West of England: a regional synthesis, in Walker, D.; West, R. (eds.) *Studies in the Vegetational History of the British Isles*, Cambridge (Cambridge University Press), pp. 41-80.

1975 The effect of Neolithic man on the environments of north-west England: the use of absolute pollen diagrams, in Evans, J.G.; Limbrey, S.; Cleere, H. (eds.), *The effect of man on the landscape: the highland zone*, CBA Research Report No. 11. London.

Petrequin, P.; Petrequin, A.-M.

2011 The twentieth-century polished stone axeheads of New Guinea: why study them?, in Davis, V.; Edmonds, S. (eds.), *Stone axe studies III*, Oxford (Oxbow), pp. 333–49.

Plint, R.

1962 Stone axe factory sites in the Cumbrian Fells, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, Second Series 62: 1–26.

Davis, V.; Quartermaine, J.

2007 Widening the horizons, *Cumberland and Westmorland Antiquarian and Archaeological Society*, Extra Series, 33, pp.141–52.

Scarre, C.

2002 Epilogue: colour and materiality in prehistoric society, in Jones, A.; MacGregor, G. (eds.), *Colouring the past: the significance of colour in archaeological research*, Oxford and New York (Berg), pp. 227–42.

Sharpe, K.E.

2007 *Motifs, monuments and mountains: prehistoric rock art in the Cumbrian landscape*, Unpublished PhD thesis, University of Durham.

2008 Rock art and rough-outs. Exploring the sacred and social dimensions of prehistoric carvings at Copt Howe, Cumbria, in Mazel, A.; Nash, G.; Waddington, C. (eds.), *Art as metaphor: the prehistoric rock-art of Britain*, Oxford (Archaeopress), pp. 151–73.

2012 Reading between the grooves. Regional variations in the style and deployment of 'cup and

ring' marked stones across Britain and Ireland, in Cochrane, A.; Jones, A. (eds.), *Visualising the Neolithic: abstraction, figuration, performance, representation*, Oxford (Oxbow Books), pp. 47–88.
Sharpe, K.; Watson, A.
2010 Moving Images: Interpreting the Copt Howe Petroglyphs, in Sharpe, K;Barnett, T. (eds.), *Carving a future for British rock art: new directions for research, management and presentation,* Oxford (Oxbow Books), pp. 57–64.
Sherratt, A.
1990 The genesis of megaliths: monumentality, ethnicity and social complexity in Neolithic north-west Europe, *World Archaeology* 222: 147–67.
1996 Why Wessex? The Avon route and river transport in later British prehistory, *Oxford Journal of Archaeology* 152: 211–27.
Style, P.
2009 *Polished axes, petroglyphs and pathways. A study of the mobility of Neolithic people in Cumbria*, Unpublished undergraduate thesis, University of Central Lancashire.
2011 Recent rock art finds from the Cumbrian Mountains, *Newsletter of the Cumberland and Westmorland Antiquarian and Archaeology Society* 16: 5.
Taylor, C.
1979 *Roads and tracks of Britain*, London (J.M. Dent).
Tilley, C.
1996 The power of rocks: topography and monument construction on Bodmin Moor, *World Archaeology* 282: 161–76.
Ward, J.E.
1974 Wooden objects uncovered at Branthwaite, Workington, in 1956 and 1971, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, Second Series 74: 18–28.
Watson, A.
1995 Investigating the distribution of Group VI debitage in the Central Lake District, *Proceedings of the Prehistoric Society* 61: 461–62.

Tassili paintings: ancient roots of current African beliefs?

Jitka Soukopova
Former researcher at the University of Bristol, UK.
Vicopisano, Italy.

Abstract
The Central Sahara is a huge gallery of prehistoric and historic rock art. The earliest paintings, called round heads for the way in which the human face is represented, belong to groups of dark-skinned populations living in the Algerian Tassili and neighbouring mountains. During a humid period starting at 10,000 BP these hunter-gatherers produced several thousand images which are surprisingly similar to some of modern African elements.
Keywords: Sahara, Tassili, round heads, hunter-gatherers, rituals, ethnography

Round head paintings

Before 10,000 BP the Central Sahara experienced different regional climates. While high altitude regions had significant rainfall causing the creation of lakes, they were surrounded by extremely dry lowlands (Maley, 2004). The onset of a wet climate in the lowlands in the 10th millennium BP, which corresponded with the beginning of the Epipalaeolithic phase, represented an important change in the Central Saharan environment. Thanks to the possibility of

Fig. 1. A stone city on the Tassili Plateau.

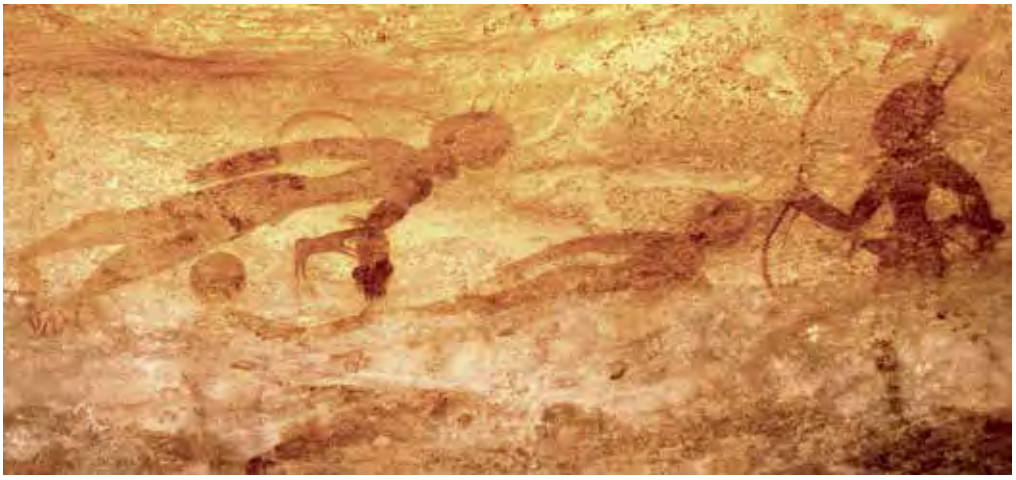


Fig. 2. Round head male figures with characteristic attributes: horns, half-moon like objects on shoulders, bows, bracelets, body paintings (Tin Tazarift, Tassili).

human and animal mobility throughout the whole Sahara, new subsistence strategies developed, the sites became much more numerous and grinding equipment appeared.

The archaeological record testifies that the Epipalaeolithic hunters were a complex society with excellent quality of lithic tools and pottery. Several burials were found in the Tassili and in the neighbouring Libyan Acacus; laboratory examinations of cutaneous remains have confirmed dark-skinned individuals (Aumassip, 1980–1; Mori, 2000). Although we do not possess direct dating from the Tassili paintings, several elements indicate that in this revolutionary period also a new rock art style appeared, namely the round head paintings (Soukopova, 2012).

The round head complex is dominated by anthropomorphic figures. However, the male figures are four times more numerous than the female ones and they are also aesthetically different. Males are represented with body paintings, masks, horns and half-moon like objects attached to their shoulders. They are often adorned with bracelets and they are holding short sticks and bows. For the women, their only decoration is body painting. The male attributes are not simple decorative elements but they are functional indicators within the society producing round heads. Symbolism is perceptible in virtually all the painted compositions, representing masks, fantastic creatures, dances and processions.

The landscape in the Tassili is characterized by agglomerations of rock shelters called stone cities. Frequently, one stone city contains abundant paintings, whereas the next site is completely devoid of any rock art even though it possesses suitable shelters. Sites containing paintings therefore attracted other images which were added to already existing figures. The paintings themselves suggest that painted sites were chosen as sacred places for special occasions, such as rituals or ceremonies, and the images are associated with specific rituals. Thus, the depiction of a certain kind of masks refers inevitably to the ritual they were used in, and they may have been depicted in secret shelters in which these masks were stored. Since the majority of the painted figures are men it is evident that ancient rituals were mostly performed by male members of the hunting society.

The ethnographic record

Comparing the round head rock art with the ethnographic record of sub-Saharan populations we find striking similarities. In many traditional societies the main rituals of the year are performed by men. In numerous rituals female participation is forbidden, and women are not allowed to acquire a deep spiritual knowledge, such as the mythological creation of the world, which is reserved exclusively to men (Griaule, 1965).

A frequent element in the round head art, namely the masks, is equally common in modern African societies. Only selected males may touch secret masks which are used on various occasions, the most frequent being those related to the death and ancestors, and to (especially male) initiations. The Dogon in Mali also undertake the boys' initiation rituals in the shelters used for the storage of masks and after each ritual the paintings already existing on the wall are repainted

(Palau Marti, 1957). In the Tassili, many round head paintings have also been repainted.

Body paintings are largely used in sub-Saharan Africa and they are an important part of the boys' and girls' initiation rituals (Ten Raa, 1969; Lee, 1979). The symbols on the human body are often directed towards the spirits, to ask for protection and to enhance fertility. Also sticks play a role in boys' initiation rituals as they signify wisdom and peace, and the bow is a sign exclusive to post-initiation adult male hunters. In numerous African societies clubs are a phallic symbol representing the sexual maturity of initiated men (Goodman, 1988). Current African religions are all concerned with fertility and growth, often represented by the symbol of horns. Considering the attributes, we can postulate that many of the round head paintings were produced by initiates and they may represent the initiation rituals undertaken in the selected shelters.

Many round head male figures wear a bracelet which in 90% of cases is depicted on the left hand. The ritual and spiritual distinction of the left and right sides is very marked in African societies, where each side is assigned different qualities. The Songhay in Niger believe that evil spirits enter the human body through the left middle finger, and that is why they wear big rings on this finger to protect themselves against the harmful power (Stoller; Olkes, 1987). The representation of bracelets in the paintings may therefore have been addressed to malicious spirits.

A special kind of animal is characteristic of the round heads, namely a fantastic quadruped represented always with the head downwards. Very similar indeterminable animals exist in South African rock art, where they are interpreted as rain animals. They are managed by a special kind of people called rain men or shamans of the rain, who in a trance state catch a rain animal, lead it through the sky to a hill and kill it so that its blood will fall as rain. The animal head is downwards as a sign of oncoming death (Lewis-Williams, 2004). Rain animals depicted on the rock wall testify that rain rituals occurred in these shelters.

Another characteristic element of the round head art are so-called great gods. These large male figures, from around 1.5 m to 4 m high are always depicted in the central part of the wall in a dominant position. With their hands raised and often surrounded by smaller figures apparently in worship, they represent

Fig. 3. A Round head mask representing a stylized mouflon (Aouarnhat, Tassili).

an important figure in spiritual life. Since they are all situated on the Tassili Plateau, they may have belonged only to these most elevated altitudes. Places and natural features are fundamental elements in all African religion and African people all over the continent consider rocks and caves to be the dwelling place of the spirits; spectacular mountains are regarded as sacred and high mountains are believed to be inhabited by God (Mbiti, 1969).

At least one of these figures, the great god of Sefar, has an enigmatic large oval between his legs which has mostly been interpreted by European scholars as a false tail (Muzzolini, 1995). However, if the Masa, a population living today near Lake Chad, could see the figure, they would probably interpret it in a completely different way. The Masa believe in a powerful god called Matna, a feared spirit responsible for death and playing an important role in initiation

Fig. 4. The Great god of Sefar with raised hands, horns and an enigmatic oval between his legs.

rituals. He usually affects a person in the form of a disease and to assure his favour animal sacrifices must be carried out for him.

The main characteristic of Matna is his enormous scrotum affected by elephantiasis (Melis, 2002). Elephantiasis of the scrotum is a huge swelling of male genital organs caused by a tropical illness which is not rare in humid areas of Africa and it was certainly present during the wet Epipalaeolithic period. Indeed, the big oval between the great god's legs looks exactly like enormous genitalia and such a hypothesis has already been proposed (Soleilhavoup, 2007), but it was rejected by the rationally thinking Western academic community.

Cultural continuity

The onset of desert conditions from around 3,000 BP was the definitive end of the round head art. These hunter-gatherers might have adopted the pastoral economy from their neighbours but some groups of hunters certainly abandoned the Central Sahara. They migrated towards sub-Saharan Africa as the main rivers were still flowing southwards into the Chad basin.

Today, in the regions south of the Tassili we find impressive affinities between elements represented in round head art and those existing in traditional African culture. One of the main characteristics of African culture in general is its conservatism. Although the economy changes, essential values do not change in time: the primary task of women is still to procreate, then to take care of children and the hearth, while men ensure a good passage of events through rituals. This functional behaviour is deeply rooted in the same prehistoric tradition.

Bibliography

Aumassip, G.

1980-1 Ti-n-Hanakaten, Tassili n'Ajjer, Algérie. Bilan de 6 campagnes de fouilles, *Libyca* 28-9: 115-27.

Barich, B.E.

1987 *Archaeology and Environment in the Libyan Sahara – Excavations of Tadrart Acacus 1978–83,* BAR Series 368, Oxford.

Cremaschi, M.; Di Lernia, S.,

1998 The geoarchaeological survey in central Tadrart Acacus and surroundings (Libyan Sahara), Environment and Cultures, in Cremaschi, M.; Di Lernia, S. (eds.), *Wadi Teshuinat. Paleoenvironment and Prehistory in South–Western Fezzan (Libyan Sahara)*, Milano (All'Insegna del Giglio/CNR), pp. 243-95.

Goodman, F.

1988 *Ecstasy, Ritual, and Alternate reality. Religion in a Pluralistic World*, Bloomington (Indiana University Press).

Griaule, M.,

1965 *Conversations with Ogotemmeli: An Introduction to Dogon Religious* Ideas, London (Published for the International African Institute by Oxford University Press).

Hachid, M.,

1998 *Le Tassili des Ajjer. Aux sources de l'Afrique, 50 siècles avant les pyramides*, Paris (Méditerranée).

Hallier, U.W.; Hallier, B.C.

2003 The roundheads of the Djado and the Tassili mountains, *StoneWatch* 7:28–56. See <http://www.stonewatch.de/media/download/djado_d_e.pdf>.

Lee, R.B.
1979 *The !Kung San. Men, women and work in a foraging society*, Cambridge (Cambridge University Press).
Le Quellec, J.C.
2004 *Arts rupestres et mythologies en Afrique*, Paris (Flammarion).
Lewis-Williams, D.J.
2004 *The Mind in the Cave. Consciousness and the Origins of Art*, London (Thames & Hudson).
Maley, J.
2004 Le bassin du Tchad au Quaternaire récent: formations sédimentaires, paléoenvironnements et préhistoire, La question des Paléotchads, in Renault-Miskovsky, J.; Semah, A.M. (eds.), *Guide de la Préhistoire* mondiale, Paris (Artcom-Errance), pp. 179-217.
Mbiti, J.S.
1969 *African Religions and Philosophy* , London (Ibadan, Nairobi: Heinemann).
Melis, A.
2002 *I Masa: Tradizioni orali della savana in* Ciad, Pisa (Edizioni Plus – Universitá di Pisa).
Mori, F.
2000 *Le grandi civiltà del Sahara antico* Torino (Bollati Boringhieri editore).
Muzzolini, A.
1995 *Les images rupestres du* Sahara, Toulouse (author's edition).
Palau Marti, M.
1957 *Les Dogon*, Paris (Presses Universitaires de France).
Sansoni, U.
1994 *Le più antiche pitture del Sahara. L'arte delle Teste* Rotonde, Milano (Jaca Book).
Soleilhavoup, F.
2007 *L'Art mystérieux des Têtes Rondes au* Sahara, Dijon (Editions Faton).
Soukopova, J.
2012 *Round Heads: The Earliest Rock Paintings in the Sahara*, Newcastle upon Tyne (Cambridge Scholars Publishing).
Stoller, P.; Olkes, C.
1987 *In Sorcery's Shadow: A Memoir of Apprenticeship Among The Songhay of Niger*, Chicago (University of Chicago Press).
Ten Raa, E.
1969 Sandawe pre-history and the vernacular tradition, *Azania* 4: 91-103.

Rock art: when, why and to whom?

Radhakant Varma
Retd. Prof. & Head Dept. of Anc. Hist. Cult.& Archaeology, A.P.S. University, Rewa (M.P.), India, & Former Chairman, Allahabad Museum Society, Allahabad.

Indian rock art covers a very long period of time. Generally each canvas has been painted by generations of painters superimposing on the earlier paintings, belonging to different stages of subsistence economy, right from the purely hunting gathering stage to the beginning of agriculture and even till modern times. But sometimes all rock art is clubbed together and considered the work of prehistoric men of the stone ages. In view of the very long period of rock art tradition, general statements regarding the entirety of rock art are bound to be misleading. For example, motives, subject matter and style of painting underwent changes with the passage of time on account of changes in the subsistence pattern. The motives of painting during prehistoric times, when man was completely dependent on nature and during the early historic period when he had learnt to tame and modify the natural agencies according to his needs, would not have been the same. It is true of preliterate tribal societies also. A closer study of rock art reveals that the art of each region has its own distinct personality even though the canvas, the pigments and the style of painting remain the same.

In order to study and understand the artistic creations on a canvas it is necessary to study and separate the superimposed figures from the underlying ones. It is only after separating the paintings of each period that we may know the subsistence economy of the painters of different periods. It is a universal truth that nothing comes out of nothing. A painter is a product of the society and environment in which he lives and the impulses that he receives from his perceptions. He paints only such things that make their imprint on his mind. It is essential, therefore, to understand the complete background and environment in which these were produced and to pinpoint who the painters were. In the rock art of central India, especially the Mirzapur region, at least four stages or periods of painting activities have been recognized on the basis of the superposition of

paintings. Another important feature of the shelters of this area is that they reveal the cultural occupation of only one period, the Mesolithic. From the surface were recovered later pottery and iron arrowheads of the early historic period. The same thing is reflected in the rock paintings also. The later paintings invariably form a separate group. The excavations conducted in the Morahana Pahar group of shelters (Varma, 1986) have revealed no material from the post-Mesolithic period. The important features of the paintings may be summarized as follows:

There are no human figures in the earliest phase.
2. There are no non-iconic paintings in the early phases as has been reported in the central Vindhyan region and elsewhere.
3. Single animal figures comparatively larger in size have been found painted haphazardly.
4. The phase was followed by painting animals, in groups, in different attitudes. At this stage man appears as a hunter or as a dancer. Only male human figures are depicted and that too most unrealistically as compared with animal figures. The subject revolves round animals only.
5. Female figures are generally absent or rare in the paintings of the northern Vindhyan region.
6. Hunting scenes are generally symbolic and lifeless.
7. Among the hunting weapons bow and arrows, spears with pointed tips and barbs, harpoons with inset barbs and so on can easily be recognized.
8. Simple pit traps were dug to trap the animals, besides 'Haka' (guiding animals towards prepared traps by groups of persons making a noise), were also organized for trapping animals. Nooses were also utilized for catching animals.
9. There are no paintings depicting day-to-day activity as has been depicted in the paintings of the central Vindhyan region.
10. Mostly such animals that formed part of their menu were depicted again and again.
11. Ferocious feline animals were painted rarely.

The general picture that emerges indicates that the people who painted were in the hunting and gathering stage of subsistence economy and their existence completely depended on animals.

What the motive was for making these paintings is a million-dollar question. Here I am concerned with the people who were in the hunting and gathering stages only. Before taking up the second question of why, I would like first to discuss the difference between art and aesthetics. The concept and purpose of art have not been the same in history. Similarly aesthetics, art and art objects have entirely different denotations and connotation sand they should not be confused and treated as synonyms. The word 'aesthetic' in Greek means sensation or reaction to external stimuli. 'Aesthetic experience is of the skin you love to touch, or the fruit you love to taste' (Coomaraswamy, 1956: 16). Art, on the other hand, 'is an intellectual, not a physical virtue'. It is nothing tangible.' We cannot call a painting art. The art remains in the artist and is the knowledge by which things are made (Coomarswamy, 1956:18). The thing made is a work of art, but not itself art. During prehistoric times artistic creations were, just like any artefact, to serve some purpose. Therefore the modern concept of art based on the present concept of aesthetics cannot and should not be applied while discussing the art of prehistoric people. In traditional art, function and meaning are inseparable. Most of the scholars who have written profusely on rock art have completely neglected the traditional concept of art as explained by Coomaraswamy. Bednarik says that "the term 'rock art' is simply the name of a phenomenon considered collectively." (Settar and Ravi Korisettar, 2002: 355). It is not correct to say that it is only the name of a phenomenon, because it reflects the entire socio-cultural life of the people who were responsible for its production. While considering the artistic creations of early man we should begin by discarding the term 'aesthetic' because they were not produced for the delectation of the senses. For Socrates, the distinction of beauty from use is logical, but not real, not objective; a thing can only be beautiful in the context for which it is designed. The artist is producing a utility, something to be used. 'The appreciation of art' must not be confused with a psycho-analysis of our likes and dislikes, dignified by the name of 'aesthetic reaction' (Coomarswamy,1956: 30). In order to appreciate a work of art it is necessary to understand the circumstances and necessity on account of which the works of art were created. Coomaraswamy (1977: 93) is of the opinion that 'works of art are means or existence made by man as artist in response to the needs of man as patron and consumer or spectator. The production of art is never an end in itself; it has a social value.' According to Mukerjee, 'Art is at once a social product and an established means of social control. Art forms are largely socially conditioned and

determined while these are the most effective modes of the lives of individuals and societies' (Mukerjee, 1968: 1). The artist is producing a utility, something to be used. Mere pleasure is not a use from this point of view. In order to understand any artistic activity, it is essential to understand the social and ideological back ground of the artist and the form, motifs and theme of art in relation to the precise social historical setting. Both the subject matter and art are derived from the social environment; the artist no doubt makes his own selection. There is always some purpose behind any artistic creation.

The people living in the hunting and gathering stage of the economy lived in small groups with a self-sufficient economy. The excavations at the sites of Baghaikhor, Morahana Pahar, Lekhahia (Varma, 1986), Chopanimando (Sharma, 2011), Sarainahar Rai, Mahadaha and Damdama (Varma, 1981–83) in the Vindhya-Ganga region have shed valuable light on the pattern of their life style. The numerous burials that have been excavated throw valuable light on their mental make-up. The excavations clearly indicate that it was a well-developed practice and the skeletons were buried in a set pattern in a west–east or east–west direction. The difference in the orientation among the burials is only of a few degrees. The direction must have been guided by the position of the sun and the difference in orientation among the burials was on account of the difference in the time of each burial. Interestingly, some couple burials have also been located in which males and females have been buried together in predetermined manner (Varma, 1981–83). Grave goods in the form of fragments of animal bones and ornaments, etc, have been found (Varma, 1981–83: 33). The meticulous way in which the burials were made and the skeletons were took the form of a ritual and the performance of a ritual by a social group presupposes the development of eschatological concepts and group consciousness. Probably this concept later on took the form of the beginning of religion. The above discussion shows that these people had strong beliefs in the supernatural. The painting activity was a means to appease the supernatural to bestow blessings in hunting animals. The artists like the present-day priests or the hunter himself performed the painting ritual, unconcernedly painting over the earlier paintings. It also explains the wide difference in the form of animals. Over the millennia, the figures became more stylized and gradually tended towards abstraction. Such type of ritual or sympathetic magic is not uncommon in backward or illiterate present-day societies.

The third question of to whom is incorporated in the answer of the second question: that it was addressed to the supernatural power.

References

Coomaraswamy, A.K.

1956 *Christian and Oriental Philosophy of Art*, New York (Dover Publications), p. 11.

1977 *Ornament, in Traditional Art and Symbolism*, ed. Roger Lipsey, Oxford (Oxford University Press), p. 93.

Inwood, M.

Editorial note and Commentary on Hegel's Introductory Lectures on Aesthetics, London (Penguin Books), p. XV.

Inwood, M. (ed.)

Hegel Introductory Lectures on Aesthetics, London (Penguin Books), p. 35.

Mukerjee, R.K.

1968 Social Functions of Art, New York (Philosophical Library).

Sharma, G.R. et al.

2011 *Beginnings of Agriculture*, Allahabad Avinash Prakashan.

Varma, R.K.

1981-83 The Mesolithic Culture of India, *Purattava*, Nos 13–14.

1984 The Rock Art of Southern Uttar Pradesh with Special Reference to Mirzapur, in Chakravarty, K.K. and Badam, G.L. (eds), *Rock Art and Archaeology of India*, New Delhi (Arnold-Heinemann), pp. 206-213.

1986 *The Mesolithic Age in Mirzapur*, Allahabad Paramjyoti Prakashan.

2002 Hunting Strategy of the Mesolithic Folk as Revealed by Rock Paintings, in Misra,V.D. and Pal, J.N. (eds), *Mesolithic India*.

2006 Keynote Address, in *Indo-French Joint Seminar on Prehistoric Cave Paintings*, Bhopal.

2012 *Rock Art of Central India: North Vindhyan Region*, New Delhi (Aryan Book International).

Settar, S. and Ravi Korisettar (eds.

Development of Rock Art Studies, in *Indian Archaeology in Retrospect*, Prehistory, vol. I, p. 355.

Communicating with the Spirits

Artists Who Pre-Dated Sound Wave Theory Selected Echoing and Reverberant Environments to Depict Echo and Thunder Spirits in Attempts to Communicate with these Spirits

Steven J. Waller
USA

Audio measurements reveal that prehistoric rock art was typically placed in caves and canyons with particularly intense echoes, including reverberation that mimics thunder. This leads to an insight into the relationships between the when, why and to whom questions of rock art.
This paper proposes the following general theory.

When?
Rock art was produced by pre-scientific cultures unaware of the wave nature of sound. These artists did not realize it was merely the reflection of sound waves that caused the delayed repeats and thunderous reverberation heard in canyons and caves. That these repetitions of sound were interpreted in an animistic manner is captured in many ancient echo myths from around the world.

Why?
Rock art was produced in response to echoes and reverberations heard in particular locations because these answering sounds were believed to be supernatural. The content of the art is consistent with descriptions of mythical echo spirits and thunder gods. In this regard, the artists were visualizing the sources of the mysterious sounds they heard, and capturing these forms not only as descriptions in oral legends, but as images painted and carved on the echoing rock surfaces.

To whom?
Rock art depictions of echo spirits and thunder gods imply that the art was an effort to communicate with the spirit world. The recognition that reverberation mimics thunder suggests the makers may have employed a ritualistic use of sound in rain-making rituals.

Fig. 1. Spirit Shelter is an echoing rock art site in the Grand Canyon, Arizona, that contains many painted anthropomorphs that answer back from solid rock.

Sound reflection gives the illusion of a virtual sound source behind the reflecting surface (just as light reflection gives the illusion of an image in a mirror). Prior to sound wave theory, reflected sound was perceived as answers emanating from non-corporeal beings dwelling within the rocks, as attested by ancient myths from around the world describing echo spirits. These descriptions include anthropomorphs and zoomorphs consistent with common rock art motifs. Thunder myths contain thunder god descriptions matching rock art motifs found in reverberating locations: thunderbirds, wide-eyed Tlaloc figures, lightning brothers, hoofed animals; indeed more than 90% of European cave art depicts thundering stampedes of ungulates, located in portions of caves where a single clap results in thunderous reverberation sounding like hoof beats. An acoustical connection with rain-making rituals is suggested.
Together with cultural information contained in myths, the quantitative acoustic data leads to the conclusion that the artists intentionally selected strongly sound-reflecting locations. While no one theory can explain all rock art, acoustic research suggests much of rock art represents manifestations of locally focused ritualistic behaviour expressing global beliefs of acoustic phenomena perceived in spiritual context. Rock art is found throughout the world, and the consistent theme of echo myths collected from around the globe demonstrates that humans on every continent had similar reactions to sound reflections.

Fig. 2. The Bhimbetka rock shelters in central India are painted with thundering herds of stampeding hoofed animals, consistent with the thunderous reverberation in these shelters, and evoking Indo-European thunder god myths that explain thunder as supernatural hoof beats.

This acoustic theory harmonizes with other rock art theories, such as animism, structuralism, hunting magic and weather control.

Thus consideration of acoustical and cultural contexts leads to the theory that the when, why and to whom questions of rock art are interrelated. The time of rock art production was of course before the scientific discovery that sound consists of waves which can rebound; the reason for rock art production in sound-reflecting environments was that people's lacking understanding of the wave properties of sound perceived echoes and reverberation as supernatural, which motivated artists to depict the echo spirits and thunder gods they thought were causing the sounds; and the rock art message was addressed to those same echo spirits and thunder gods in an effort to communicate with the spirit world, in some cases to specifically mimic the sound of thunder in rain-making rituals.

This paper summarizes decades of rock art acoustics research. See the Rock Art Acoustics web page at https://sites.google.com/site/rockartacoustics/ for bibliography, sound files and more.

Elements to approach the Magdalenians' motivations, who lived in the Fontalès' rockshelter (Tarn-et-Garonne, France)

Anne-Catherine Welté
Chercheur associé, Laboratoire Chrono-environnement UMR 6249, Univ. Bourgogne Franche-Comté, Besançon, Toulouse, France.

Georges-N (Joel) Lambert
Chercheur Honoraire du CNRS (F), collaborateur de l'université de Liège (Ulg, B).
Conliège, France.

The Fontalès's shelter (Saint-Antonin-de-Nobleval, Tarn-et-Garonne, France) is situated on the left bank of the valley of the river Aveyron, 150m above the sea level at the bottom of a limestone Jurassic cliff, in the outlet of a dry valley originating in the Rocher-d'Anglars. Facing the confluence Aveyron-Bonnette, where there are several fords, not flooded, it opened to the North and so benefited from a natural protection against winds, channeled by the East-West weakness-flexure of Saint Antonin and weakened by their passage in the meanders of the valley. The closeness of Aveyron river (approximately 50 m) and the presence of a spring inside certainly had an influence. The easy access by the dry valley to a platform where the vast sight allows the observation of the herds turning into the valley and trapped by the steep slopes was also an advantage, because animals were forced to go away where people could wait for them (figure 1).

Discovered by V. Brun in 1865, the shelter was exploited by Paul Darasse from 1936 to 1960 according to the methods of his time: trenches dug with a pickaxe, lack of horizontal cleaning or sieving with water, the recording limited to the mention of the layer of objects, with sometimes a brief drawing. A short stratigraphy was proposed from the available observations: 5 periods of occupation were distinguished. No remains of the arrangement of the site seem to have been found, except for traces of fireplaces at the bottom of the layer. At Fontalès, a radiometric dating was carried out on the bilateral barbed points of a reindeer's antler; the result was 13 140 ± 120 years BP (Gif-A96-327-Tisnerat-Laborde

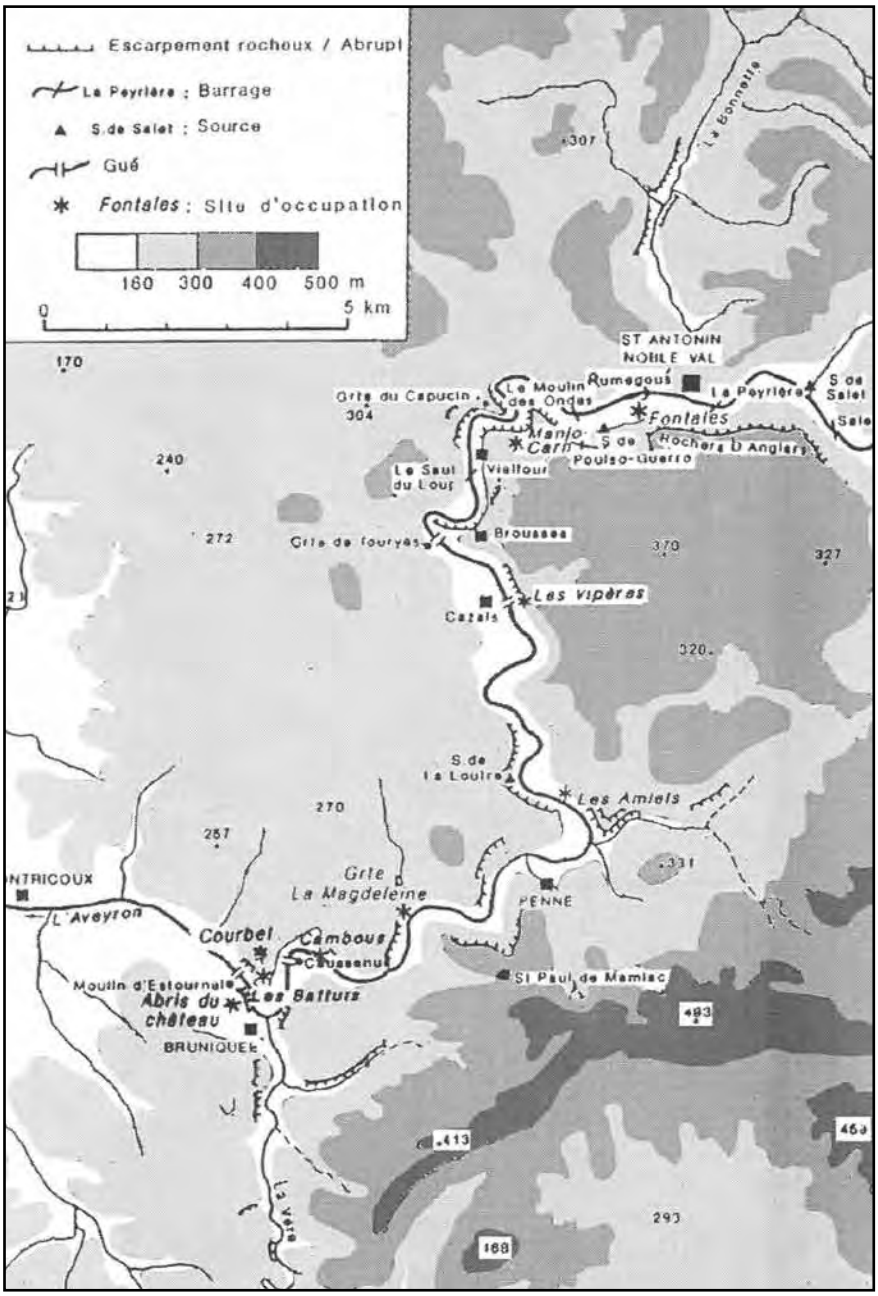


Fig. 1. Map of the Aveyron Valley . Drawing GNL.

and coll. 1997), that is 16 406-15 585 cal. BP (Reimer *et al.*, 2009). It fits into the chronological limits known currently for Magdalenian in the upper part of the valley. It is the only dating for this site, but according to the notes of P. Darasse, mono and double barbed points coexisted at every level of the archaeological layer.

Magdalenian people of Fontalès were hunters-fishers-gatherers. Hunting is confirmed by the presence of weapons: 160 organic points at least (500 according to Darasse), several hundred "armatures" and numerous bones of reindeer and horses, of ibexes, chamois, cervids and bovids, as well as numerous birds (Bouchud, 1966). 137 barbed points (200 according to P. Darasse), 22 fishgigs rare fishhooks, and some vertebras of large-sized salmon show fishing activities. But the animal game is not only a food resource. Awls and needles (about 200), indicate that it was also used for sewing activities. These elements, associated with the importance of the lithic industry—12 000 blades and raw strips, 350 cores in plenty (and then cutting activity even if intermediate products were not collected) and about 5000 tools (Pajot, 1969)—tend to suggest a long human activity. It seems to have been seasonal, especially during the six winter months according to the study made on reindeer (fall male antlers, antlers of slaughtered females and young), milk teeth (David, 1996 in Welté, 2001) and salmons. Was the site frequented by a human group which returned there periodically? Where did these Magdalenians come from when they arrived in autumn and in which direction did they go when summer came back?

Activities other than economic and domestic appear to have taken place in the site. First of all music is confirmed by the presence of rhombuses and other scraping music instruments, but also by aesthetic or not immediately utilitarian concerns as the numerous organic or lithic engraved tools made out of local materials tend to prove: bones and antlers of reindeer abound, as well as different kinds of limestone (outcrops in slab or blocks), brown coal (for a statuette), river pebbles, shells, dental ivory and fossils (ammonite, sea-urchin) for the jewelry. All of the decorated supports (especially the engravings) currently concern 477 objects among which 390 in organic matter and 87 in lithic material. The engraved organic supports contain 313 tools and weapons, among which 6 "bâtons perforés", 1 "baguette demi-ronde", 87 organic points, 122 barbed points, 18

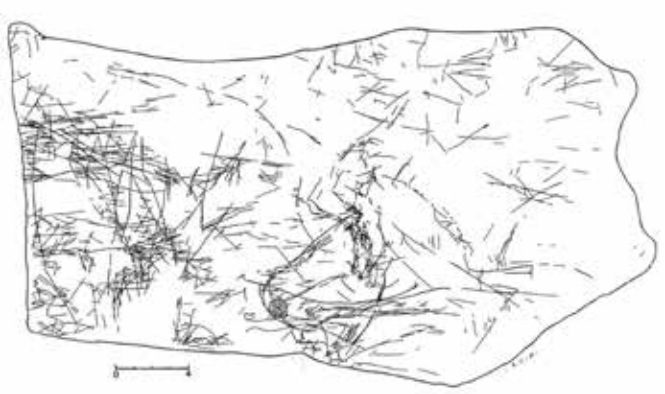


Fig. 2a. Fontalès (Tarn-et-Garonne, France)- Dalle MHNT-1970-Dar-12, limestone (34,8 x 19 x 6,9 cm; 7,5 kg). Drawing ACW. Two Horse and Izard heads are in the front of long oblique lines. They are imbricated, directed to the left and share the same eye. Several groups of lines or line segments are arranged of the both sides. The theme of the fusion of a horse and a caprid exists at the same period on a smoother in Pékarna (Moravie, Czech Republic).

darts, 79 varied objects : scraping music instruments, a spoon, a needle, a fishhook, 2 intermediate elements, 4 awls, 26 "lissoirs" (smoothers), 43 round rods. There are also 12 objects to be hung, 56 bone fragments among which 20 of birds, 7 cervids' antler fragments. Lithic supports engraved include 2 pendants, 4 jars, 18 pebbles and 63 slabs, blocks and paving stones.

The non-figurative decoration is very present, sometimes exclusive. Almost all of the using supports contain series of parallel lines, unique or parallel slots, right, curved, broken straight lines? … The bones of birds bear protuberances and notches. On almost all of the stones are also engraved lines, segments with their

Fig. 2b. Fontalès (Tarn-et-Garonne, France)- Dalle MHNT-1970-Dar-12, Details of the heads. Photo Berthélémy.

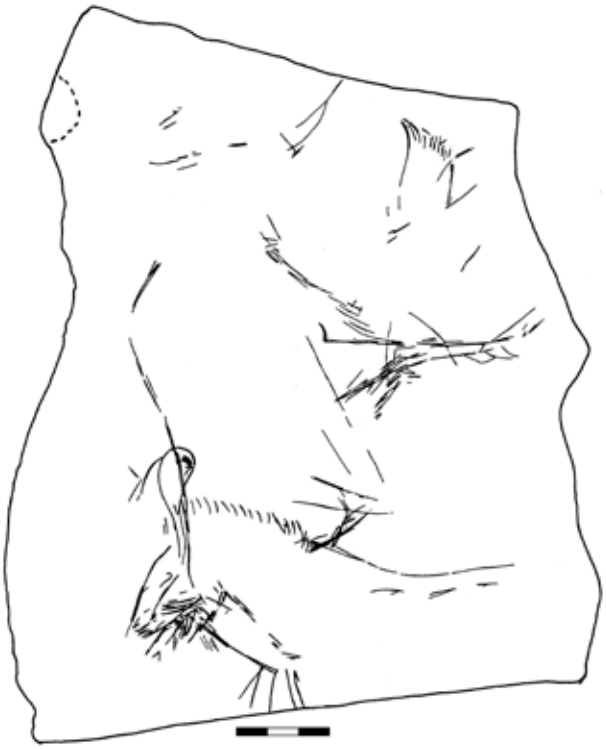


Fig. 3a. Fontalès (Tarn-et-Garonne, France)- Dalle MHNT-1970-Dar-418, limestone (24,84 × *19,52* × 2,90 cm; 2,1 kg). Drawing ACW. At the centre, a bison is going to the right. A breast and forepart of a horse, directed to the left, is over-engraved perpendicularly. The profile of an anthropomorphic figure is inserted at the precise intersection of both figures.

variants, and simple graphics (punctuations, spindle-shaped signs, oval, fringed, digitiform and branched themes). The figurative decorations represent 165 images, namely 20 human beings (7 anthropomorphic representations and a drawing represents a hand, 11 schematic female figures among which 9 engraved and 2 in relief, 143 animals (119 determined, 24 unknown) and 2 objects (1 barbed point, a hut?). The bestiary is organized: horses (57) dominate, and then cervids (26) and ibexes (19), the most frequently hunted species (Bouchud 1966). Bovine animals so frequent elsewhere are rare (5). "Rare" species are represented: canine species (1), reptiles (1), birds (2) fishes (2), batrachians (3). The representations of animals limited deliberately to the head dominate, except for bison which are represented in full. Whatever the support and the state of figures, representations of animals rather turn to the left, except for the bison, which are turned right.

The contrasts are numerical—there are approximately 20 human beings and 119-143 animals—, sexual—female-predominant sexualisation as far as human

Fig. 3b. Fontalès (Tarn-et-Garonne, France)- Dalle MHNT-1970-Dar-418, Details of the insertion of both figures ; photo Berthélémy.
Fig. 4. Fontalès (Tarn-et-Garonne, France)- Pebble MHNT-1970-Dar-27, sandstony limestone, broken and partially rebuilt, very smooth (23,30 ´ *2,90* ´ *11,90 cm ;* 820 gr). Each face shows a palimpsest of animals (Ibex, cervus, herbivore), an anthropomorphic and not figurative pattern. We may identify a "flight scene", animals flying from humans.

beings are concerned and male-dominant sexualisation as far as determined animals are concerned—, and stylistic (elaborate and repetitive schematization of the female figures, extreme reduction of anthropomorphous figures and realism of animals with frequent individual anecdotal notations). There seem to be some preferences: human beings are engraved only on stone; reindeer are more frequent on organic supports, ibexes on stone.
What is the purpose of the achievement of those engravings? And in what context were they made? In the traditional groups art has multiple functions, most of the time associated: utilitarian, ergonomic, religious, magic; it may also be an identity mark or have a temporal function to which is added an aesthetic content difficult to to define.
Do some images tell a fact, an event that must be maintained? If people a re represented with a great precision, it is not the case of all. Were those drawings made to assure the reproduction or the success of hunting with magic rites? But no mark associated to this magic (deliberate absence of head, arrowed or drilled sides) exists on the images of the most illustrated and most hunted families (horses, ibexes, cervids) unless considering spindle-shaped marks as wounds? On the contrary, how can we explain representations deliberately limited to the head for the majority of the species?
Had some pieces shamanic functions? It would be the case of the reindeer's antler spoon, decorated with reindeer figures, which might be used for offerings? Or that of the pendant-rhombus-spatula with the salmonids and the bovids "protected" in a hiding place? Or that of the scraper made out of reindeer's antler with a symmetric composition of horses accompanied with a fish and a bird, which in the instrument notches follow each horse? Or else those of lithic supports, the outlines or reliefs of which are integrated into the animal image, which seems to emerge from some stone, in this particular case a deer including a geode? Several representations raise questions. It is the case of animals in spatial connection on the same face, in spite of the differences of proportions, and in mutual unusual situation: a paving stone contains the head of an ibex included in the head of a horse (figure 2) and they have a common eye. The combination is all the more curious as it exists on a rib engraved in the distant site of Pekarna (Czech Republic). Another possibility combines humans and animals,

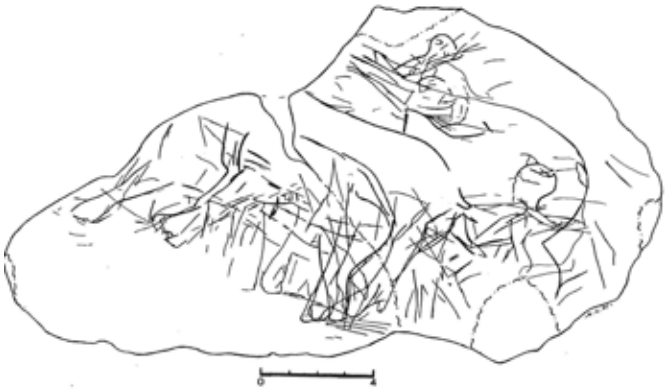


Fig. 4-1a. Recto – Drawing ACW.

Fig. 4-1b. Recto – Details of the palimpsest of animals (ibex, cervus, herbivore) and anthropomorphic pattern. Photo Berthélémy.

Fig. 4-1c. Recto –Detail of the main anthropomorphic figure.

always on stone. The first situation shows "whirling" schematic female figures, surrounded with a cervid and a bird… On another paving stone (figure 3), a human representation is drawn at the crossing of the dorsal line of a bison and the mane of a horse. Finally, both faces of a pebble present us with what can be interpreted as a scene of flight (figure 4): on one face a human figure is on the croup of an animal (ibex?), and one or two others around seem to have caused the movement of a herd of 7 individuals in a movement that seems to also concern the animals on the other face (10), carrying them in a "turbulence" where some are tangled or knocked over. Indeed, in the stampede of a herd, animals generally run forwards, without being hindered but it is not the case of all: speeds being different, there is a jostle, some are knocked over, some even bounce on the others, some can find themselves in the opposite direction for a few moments then recover and take their position among

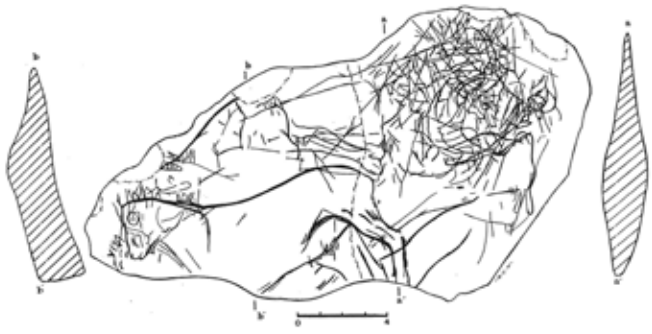


Fig. 4-2a. Verso- Drawing ACW.

Fig. 4-2b. Verso- Details of the palimpsest of animals. Photo Berthélémy

their fellow creatures (Welté, 2011). This kind of scene, rare, is known in Magdalenian as far as Ettiolles and Gönnersdorf.

The union of animals of different species on the same support, the unusual characteristic of their mutual situations (found in other distant and more or less contemporary sites), the (possible) presence of human figures, seem to us to relate the expression of mythological, magic or religious thought, certainly complicated and only partly understood by us.

The mobile art of Fontalès raises all the questions raised by Paleolithic art in general, because it presents us with all the facets of the complexity of the relations between necessity, deliberate intent, the precision of the perception, the ability to abstraction and the cleverness of the Magdalenian's people. The making of these numerous engravings expresses the extent of the conceptual thought of their authors. For them, the practice of this activity was certainly linked to the site and to the gesture that tries to control at the same time questions raised by everyday life and metaphysics.

References

Bouchud, J.

1966 *Essai sur le Renne et la climatologie du Paléolithique moyen et supérieur*, Périgueux (Imprimerie Magne), VI & 301 p.

Brun, V.

1867 *Notice sur les fouilles paléontologiques de l'âge de Pierre exécutées à Bruniquel et Saint-Antonin*, Montauban (Imp. Forestié), 46 p.

Darasse, P.; Guffroy, S.
1960 Le Magdalénien supérieur de l'abri de Fontalès à Saint-Antonin (Tarn-et-Garonne), *L'Anthropologie*, t. 64, p. 1-35.
Pajot, B.
1969 *Les Civilisations du Paléolithique supérieur du bassin de l'Aveyron. Toulouse: Université des Lettres et Sciences humaines de Toulouse*, (Travaux de l'Institut d'Art préhistorique de Toulouse, XI), 583 p.
Reimer, P.J.; Baillie, M.Gl.; Bard, E.; Bayliss, A.; Besk, J.W.; Blackwell, P.G.; Bronk Ramsey, C.; Buck, C.E.; Burr, G.S.; Edwards, R.L.; Friedrech, M.; Grootes, P.M.; Guilderson, T.P.; Hadjas, I.; Heaton, T.J.; Hogg, A.G.; Hugen, K.A.; Kaiser, K.F.; Kromer, B.; Maccormac, F.G.; Manning, S.W.; Reimer, R.W.; Richards, D.A.; Southon, J.R.; Talamo, S.; Turney, C.S.M.; Van Der Plicht, J.; Weyhenmeyer C.E.
2009 Radiocarbon 51, 1111-1115.
Tisnerat-Laborde, N.; Valladas, H.; Ladier, E.
1997 Nouvelles datations carbone 14 en SMA pour le Magdalénien supérieur de la vallée de l'Aveyron, *Préhistoire ariégeoise, Bulletin de la Société préhistorique Ariège-Pyrénées*, *t. LII*, p. 129-135.
Welté A.-C.,
2001 *L'art mobilier magdalénien de Fontalès (Tarn-et-Garonne) dans la vallée de l'Aveyron: les représentations anthropomorphes et zoomorphes*, Besançon (Université de Franche-Comté, UFR des Sciences du Langage, de l'Homme et de la Société, et UMR 6565, Laboratoire de Chrono-Écologie). (Thèse de doctorat d'État ès lettres), 5 volumes.
2011 Propositions pour une nouvelle lecture d'un galet gravé de l'abri de Fontalès (Tarn-et-Garonne), collection Darasse, Museum d'Histoire naturelle de Toulouse, *Bull. de la Société d'Histoire naturelle de Toulouse, 147*, pp. 55-66.
2014 Observations sur l'art mobilier magdalénien supérieur de trois sites de la vallée de l'Aveyron (France): Le Courbet, Bruniquel-Montastruc, Fontalès. Mélanges A. Roussot, sous presse.

APPRENTICESHIP IN CONCEPTUAL ANTHROPOLOGY

Applications for the position of Research Assistant at Atelier in the Camonica Valley, in the Italian Alps, are being considered.
The apprenticeship, under the guidance of Prof. Emmanuel Anati, may last from a minimum of two months to a maximum of one year. It grants the apprentice the title of ´Research Assistant`. It involves the apprentice in active participation in research, compilation, organization and layout of exhibitions and publications, arrangement and cataloguing of ethnological collections, and planning of cultural and scientific projects.
During the active presence in the Camonica Valley, the selected apprentice will have access to self-catering accommodation on campus, at a symbolic fee.
The application, as an informal letter, should specify the motivations and skills of the candidate and be accompanied by a curriculum vita. Preference is given to university graduate students.
Applications are considered at each end of a month. The timing of apprenticeship is agreed upon with the candidate. Applications should be addressed by email to: atelier.etno@gmail.com.

LETTER TO MEMBERS AND FRIENDS OF ATELIER

September, 2015

Dear friends,
Operating from its headquarters in Valcamonica, Atelier confirms the role of activities taking place in the remote periphery. The meetings, exhibitions and publications have forged a path to the new discipline of Conceptual Anthropology.
In this same Alpine valley, the Camonica Valley, half a century ago, another new discipline was born and disseminated: the scientific study of rock art. Young people of every age are working on the pioneering task of research and culture in Europe, the Middle East and elsewhere in the world. Atelier is a laboratory of ideas for the renewal of culture.
In collaboration with the UISPP (Union internationale des sciences préhistoriques et protohistoriques), Atelier is promoting an online international journal, EXPRESSION, a human sciences quarterly focusing on art, archaeology and anthropology, in which authors from the four corners of the world are participating. The journal is published in English with online translation now widely available, we foresee its circulating in other languages. Atelier is publishing books devoted to humanistic interests. Disseminating them contributes to expanding new horizons in research and culture. But, before offering them to your friends, please read them yourself.
Publication of books is developing in various ways: monographic volumes and collection of papers by various authors on specific projects. A forthcoming volume will put together about 50 authors of the WWW Project (*Prehistoric and Tribal Art: when, why and to whom*).
Atelier has also launched a volunteer program in Valcamonica, (Camonica Valley, Italy). This program concerns not only university students seeking internships; it is open also to those all interested in actively participating in the cultural and scientific dynamics of Atelier. Individuals competent in data-entry, information technologies, publishing, exhibitions design and museography, audiovisual production, writing, editing, translating into various languages, researchers and graphic artists are welcome.
For further information please contact
Atelier Secretariat, <atelier.etno@gmail.com>.

EXPRESSION

N°9 September 2015

Atelier Research Center
Città della Cultura, via Marconi, 7
25044 Capo di Ponte (BS), Italy

Annual subscription (4 issues)

Individual subscribers	€ 20
Institutional subscribers	€ 40

EXPRESSION is published by Atelier Editions in cooperation with UISPP-CISNEP. Proposed news and texts should be sent to: atelier.etno@gmail.com

To subscribe or unsubscribe contact: <atelier.etno@gmail.com>.

TO RECEIVE INFORMATION FROM ATELIER

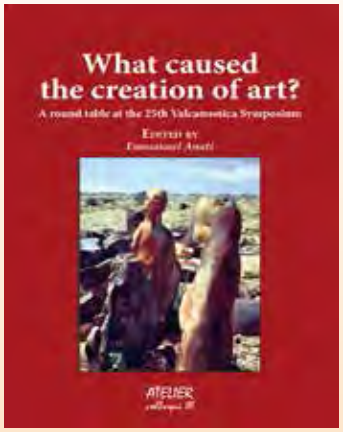
Dear Reader,
- If you do not wish to continue receiving information from Atelier, please send the following message to: <atelier.etno@gmail.com>

"Please **cancel** from your mailing list the following address:.....".
Your email will be cancelled.
- If you wish to receive Atelier mail at a different address, please send us the following message:
"Please **change** my mailing address: Previous mailing address:...; New mailing address:..."
- If you wish other colleagues or friends to receive Atelier news, please send the following message:
"Please **add** the following email to your mailing list: ....."
Many thanks for your cooperation,
Atelier Secretariat

ATELIER PUBLICATIONS IN CONCEPTUAL ANTHROPOLOGY

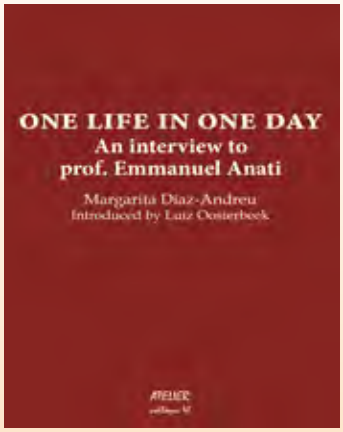
ENGLISH EDITIONS

COLLOQUI



Anati, E. (ed.) 2013. *What Caused the Creation of Art? A Round Table at the 25th Valcamonica Symposium*, Capo di Ponte (Atelier) 44 pp. € 10.

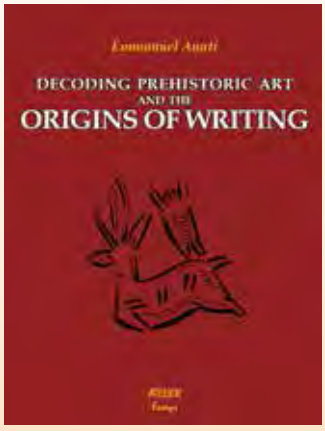
'What caused the creation of art?' People from different disciplines and different cultural backgrounds present contrasting views. And yet, the same question has bothered thinkers for generation.



Díaz-Andreu, M. 2015 *One life in one day, an interview to prof. Emmanuel* Anati, Capo di Ponte, (Atelier), 104 pp. 51 pls. € 20

In the gardens of the campus of Burgos University, while delegates were moving from sessions and lectures to coffee breaks and back, Margarita Diaz-Andreu recorded, for hours, the words of Professor Emmanuel Anati. It was the 5th of September 2014 and when the electric lights of the evening replaced the sunlight, a life-long story was drafted.

ESSAYS OF ATELIER



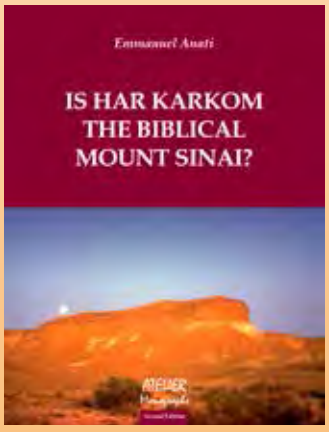
Anati, E. 2015. *Decoding Prehistoric Art and the Origins of Writing*, Capo di Ponte (Atelier), 152 pp. 83 pls. € 20.

This text examines the cognitive process that led to the invention of writing and highlights constants of memorization and associative synthesis held in the mind of Homo sapiens for thousands of years. Some examples of decoding prehistoric art propose a new vision for the beginning of writing.

MONOGRAPHS

Anati, E. 2014. *The rock Art of Spain and Portugal, a Study of Conceptual Anthropology*, Capo di Ponte (Atelier), 104 pp. 87 pls. € 20.

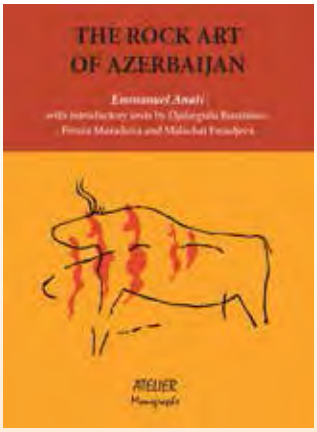
An analytical synthesis of the rock art in the Iberian peninsula from the conceptual anthropology approach.
The major concentrations of rock art are considered as expressions of their different cultural and social patterns.



Anati, E. 2013. *Is Har Karkom the Biblical Mount Sinai?* (II ed.), Capo di Ponte (Atelier), 96 pp. 53 pls. € 20.

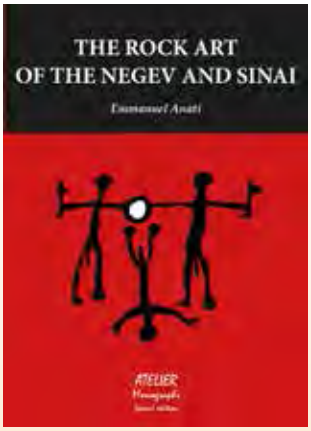
Remains of ancient sanctuaries and camp-sites tell the story of a hitherto unknown mountain in the heart of the desert of Exodus. Is Har Karkom the biblical Mount Sinai? To what point can we consider the biblical narratives as a source of historical documentation?

MONOGRAPHS



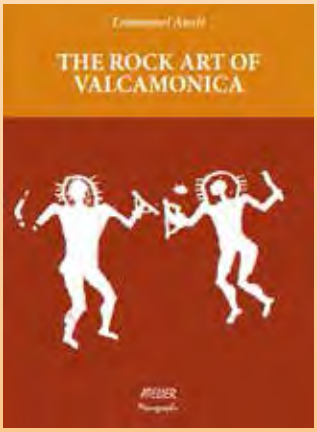
Anati, E. 2015. *The Rock art of Azerbaijan*, Capo di Ponte (Atelier), 156 pp. 190 pls. € 20

In the course of centuries, Azerbaijan, was a great centre of rock art. This gateway of Europe, between the Caucasus Mountains and the Caspian Sea, was a major way of migrations from Asia to Europe. New chapters in the history of art are revealed by beautiful design and stylisation.



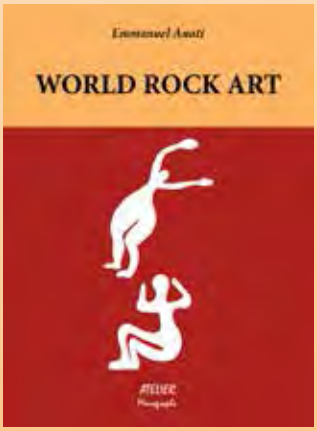
Anati, E. 2015. *The Rock Art of the Negev and Sinai*, second edition, Capo di Ponte (Atelier), 242 pp., 190 pls. € 25.

The present volume is concerned with a new theme of archeology and anthropology: the rock art of the Negev and Sinai, which never had before a general analysis in English. It elaborates on articles and a book written in the last 60 years, to produce a synthesis and an overview.



Anati, E. 2015. *The Rock art of Valcamonica*, Capo di Ponte (Atelier), 260 pp. 153 pls. € 20

Valcamonica, in the Italian Alps, with over 300,000 images engraved on rocks, is the major rock art site in Europe. It is the first "World Heritage Site" listed by UNESCO in Italy and the first rock art site listed in the world. Its study reveals the largest archive left behind by the ancient inhabitants of Europe. After having excavated, traced, descri.bed and analyzed it for over half a century, the author presents this synthesis bringing new light on 10,000 years of history. The present work represents a turning point in the methodology of archaeological research. Europe acquires back mil.lennia of its forgotten history.



Anati, E. 2015. *World Rock Art*, Capo di Ponte (Atelier), 208 pp. 193 pls. € 20

This book is a fundamental introduction to rock art studies. It marks the starting point of a new methodology for rock art analysis, based on typology and style, first developed by the author at the Centro camuno di Studi Preistorici, Capo di Ponte, Brescia, Italy. He can be seen the beginning of a new discipline, the systematic studi of world rock art.

BOOKS PURCHASE AND MEMBERSHIP

www.atelier-etno.it; PayPal (atelier.etno@gmail.com).

By bank transfer order by email to <atelier.etno@gmail.com>.

Books are also available on Amazon as printed versions and e-books.

To receive the general catalogue of Atelier Edit, request <atelier.etno@gmail.com> free of charge

MONOGRAPHS