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EXPRESSION

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Melanesia. Tapa bark cloth painted in brown and black. 40 x 80 cm. (Archives Anati).

EDITORIAL NOTES

FEAR OF ALTERNATIVE THINKING

During a survey in the Negev desert we found that some rock surfaces had been obliterated by hammering in ancient times. The newly cleaned surfaces had Bronze Age engravings of the third millennium BC. It is likely that earlier engravings or paintings had been intentionally erased at least 5,000 years ago. The recent destruction of works of art in museums and monuments in Syria and Iraq by jihadists wishing to obliterate the pre-Islamic past continues an old tradition. During the Cultural Revolution in China, as in other contexts, in other places round the world, attempts to destroy memories of the past are a recurring cultural pattern. The destruction of idols in the early times of Christianity and of Islam alike, or the destruction of idols as narrated in the Old Testament, tell us that similar events repeat themselves throughout the ages. Humans try to shape not only their future, but also to shape, or rather reshape, their past. Destroying idols may eliminate the physical evidence but can it reshape history? All the trails of our past are inside us, forming our identity. The unwanted parts of our conceptual heritage, which is inside us, can only be hidden, not destroyed. Indeed, they may become sources of alternative ideology after attempts to destroy them. As we have seen in recent events, World Heritage, what UNESCO classifies as the invaluable patrimony of the whole of humankind, is considered by some to be a disturbing testimony, which should be cancelled.

Our hidden memory may inspire alternative thinking and alternative thinking is a fundamental source of conceptual awareness. Juxtaposing global trends with specific cases helps figure out a cultural context for specific archaeological or anthropological problems.

The memories of the past are the main intellectual resource for all human societies, transmitted from generation to generation, often transformed into myths of origins, other times considered to be history. Some make of the past a matter of pride and identity, some mythicize it, and all select what to remember and what not. What is considered worth recording and remembering by a certain society may be an undesired testimony for others. A challenging task of conceptual anthropology is the reconstruction of the mental processes behind the formulation of what is history in myth and what is myth in history.

Most people practise censoring memory, be it personal, ethnic, national or mythical. Parts of the memory may be hidden or even denied, others emphasized, magnified or transformed. These conceptual processes are creating what can be termed "subjective reality". Wishful thinking, or preconceived thinking, may look like an easy solution providing self-gratification, but it prevents a broader overview. Fear of alternative thinking is a widespread mental process present in both literate and non-literate societies. It is a factor in the formation of subjective reality.

Some years ago during an archaeological survey in the Sinai Peninsula, I was assisted by a local car-driver, who stopped five times a day for his prayers. He was reading the same verses of his holy book all the time. He spoke English and I thought he might like to know more about the region we were surveying. I offered him a book on the geography of Sinai. He was horrified. He refused it, saying: "All I have to know is found in one book, I do not wish to read other books or to know anything else". The only things he was reading were those he knew by heart. His memory focused on a specific topic avoiding deviation. His reaction indicated that he was disturbed by, or even afraid of, other ways of thought, an attitude that may be considered a commendable quality by some, a crippling of the brain by others.

I asked myself if we have similar attitudes in our academic world: are some of us brainwashed by our sacred prophets or by pre-conceived ideas? A clear, unequivocal structure of ideological or technical framework eliminates doubts. It ensures that humans are efficient operators in their defined tasks. Orthodox indoctrination eliminates doubts and provides a sense of relief. Ideas or idols that do not fit into the doctrine are kept away. Curiosity made humanity evolve. But,

as we learn from myths, the gods do not appreciate excessive human curiosity. And gods, if you consider them as such, are the masters of your destiny.

The presence of concepts, beliefs and traditions different from your own awakens alternative thoughts and causes doubts. Fearing alternative thinking may be a sign of intellectual weakness and probably is as old as man. Myths tell us what chased Adam from the Garden of Eden. If one wishes to remain in his Garden of Eden one has to refuse the forbidden apple. However, things have changed since Adam's time. If we are able to walk on the moon and if we can communicate from one corner of the globe to the other in a few seconds, many apples of knowledge have been tasted. And yet the taboo of the holy apple never dies. Tasting the forbidden apple should bring down the curse of eternal wondering, the wondering of our intellect. Each human being aspires to his own Garden of Eden: the test is the response to the temptation of the forbidden apple.

Radical orientations in philosophy, science, religion or politics tend to be opposed to confrontation. The reasoning is that the truth is one: the one you believe in. It is disturbing and distressing, if not useless, to listen to the "lies" of other ideologies. Is a sharp division possible in our minds between knowing and believing? Knowledge is evolving and beliefs are changing. Until a few centuries ago, proposing that the sun does not turn round the earth, but the earth turns round the sun caused scandals. More recently, declaring that a bad economy is a bad economy or that a dictatorship is a dictatorship led one directly to a gulag. In some corners of this planet declaring that a corrupted regime is a corrupted regime is still causing physical elimination. Does such censorship apply just to political regimes? What happens to a student if he/she tells his professor that his reasoning is wrong?

Is it worth giving up apples to stay in the Garden of Eden? For some, tasting the apple is a must, even if they cannot predict its taste. For others it may depend on the kind of the Garden of Eden and on the taste of the apple. For others again the choice is the Garden of Eden, no matter of what kind; since it is offering other fruits, the forbidden apple can get rotten. We are over 7 billion people and there are no two individuals identical to each other. We are all different but all equal, some taste the apple and others don't. Some stay in the Garden of Eden, others don't. Both knowledge and beliefs are variable. Both new and old knowledge and beliefs are rooted in both, our conscious and our hidden memory. Anthropology has to define patterns and identify trends.

The Neolithic temples of Malta in the heart of the Mediterranean Sea, 5,000 years ago, contained icons of fat beings with interchangeable heads. The body remained the same, the heads could be changed. The need for the adoration of idols appears to be a recurrent trend, though the faces or the names of idols may change. Also modern idols are not eternal. We have seen what happened with totalitarian ideologies that attracted masses of acolytes. Their idols collapsed and the worshippers acquired new idols and new ideologies. Both sheep and sheepdogs found easy ways to shift to new flocks. Similar processes may happen at different levels. New faces replace the previous faces of the idols. New ideas replace old ideas. The rock surface is hammered to eliminate past stories and engrave on it the fashionable ones. The new ones are first alternative thinking; then when they are accepted, the old ones may become alternative thinking.

Some years ago, in the university in which I was teaching, in a different faculty from my own, a candidate for professorship was rejected because his ideas were considered to be unreliable. He went abroad, and there he received the Nobel Prize for his unreliable ideas. Likely, the colleagues of his discipline rejected him not for his wrong ideas but because they were afraid of his ideas or to avoid confrontations that might have upset their quiet lives in their own Garden of Eden. He survived. His ideas survived. He got both, his Garden of Eden and his forbidden apple. But many talented scholars cannot have access to research or to teaching positions, not for lack of ideas, but for having ideas, for not conforming to the taboos of the holy apple. The question is how much is culture and science losing for not listening to their voices. If new or old ideas risk upsetting the current ones, the establishment tends to remove them, just like the erasing of the Negev rock art 5,000 years ago, the changing of the face of idols in Neolithic Malta, or a modern university's loss of the opportunity of having a Nobel Prize.

Ideas are elaborations of our memory. They are the cores of the cultural process. Time should tell if they

are right or wrong: time is the true censor. Let us avoid being censors. An old proverb says: "It is easier to accept as truth a lie repeated a hundred times than a truth said for the first time." If you believe in new ideas or in what you consider to be a rejected truth, do not be afraid of repeating it a hundred times. It may or may not work. But you have to try. Ideas reflect consciousness and identity. What would culture be without them? New thinking is the source of new trails in the immensity of the unexplored jungle. Humankind has been testing trails ever since its dawn. Some lead nowhere, others lead somewhere. Until tested, you do not know which are the good ones. But for science and research it is better to consider ten doubtful trails than to miss a promising one. Let us not be afraid of new thoughts. Let us listen and let us speak, let us keep all the trails open. Some of them will lead somewhere. Meanwhile, consider that the rock engravings that were destroyed 5,000 years ago still awaken our curiosity. What did they represent? Why were they erased? Their censors prevented us from knowing their content.

E. A.

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. 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 favouring 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 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. In this issue, we made two exceptions for two cases, which will be useful to stimulate debate. In one case the author is arguing, saying almost nothing new, apparently using the paper to express his personal disagreement with the ideas of a colleague. Reviewers turned this paper down. Nevertheless, it was considered to reveal an ethical problem and it was decided to make an exception and publish it.

In the other case, the author displayed a science-fiction approach, claiming that a rock art panel demonstrates the interference of extraterrestrials in the cultural development of Homo sapiens. How can one identify images of extraterrestrials? The main issue at trial is in the following short debate: "The images of this panel look like extraterrestrials." Reply: "Nobody ever saw extraterrestrials, how can you accept the idea of their existence?" Reply: "Nobody ever saw God: how can so many people believe in God?" "But God appears in your dreams." "Also extraterrestrials may appear in your dreams." "But we have proofs of the existence of God." "The same proofs can be valid also for extraterrestrials".

Despite the current opinions on rejecting papers and ideas on extraterrestrials, shared by most scientific magazines, we considered this issue worthy of provoking further debate. Believing in God or in extraterrestrials is a personal matter. The main issue is the easy and widespread confusion between believing and knowing. Again, another exception was made, and the paper is being published.

Nevertheless, in both cases, the editors agree with the reviewers that the papers turned down were not publishable. The editors in both cases were bad boys

(and girls); they did not follow the advice of the reviewers and decided that publishing would help a healthy debate.

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 of 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 the 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 an immense 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

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 of memory in visual art myths and other aspects of oral traditions? What is the function of rock art as the 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 in forthcoming issues of EXPRESSION magazine, and will then be published in volume form, representing the most interesting contributions from 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) 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 as soon as possible 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 July 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 SOME OF THE PAPERS OF THE WWW PROJECT (PREHISTORIC AND TRIBAL ART: WHEN, WHY AND TO WHOM?). OTHER PAPERS OF THE SAME PROJECT WILL APPEAR IN THE NEXT ISSUE.

FORTHCOMING NEW DEBATES

Readers are proposing themes for debate. Two 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.

Suggestions on possible developments of these and other issues are welcome.

Contents

Mara Basile, Norma Ratto (Argentina)
Images in time: an overview of rock art manifestations in the Fiambalà region (Catamarca, northwestern Argentina) 8
Jaâfar Ben Nasr (Tunisia)
The Rock Art of Tunisia: When, Why and to Whom? 15
Luigi J. Boro (USA)
Lluta Valley, Atacama Desert, Chile 21
Christopher Chippindale (UK)
Meaning in the axe-carvings on Stonehenge 25
Jessica Joyce Christie (USA)
Layered Messages through Time: A Case Study of Blue Bull Cave, Canyon de Chelly, AZ, United States 29
Fernando Coimbra (Portugal)
Semiotics in the Rock of the Signs (Barcelos, Portugal) 34
Ib Ivar Dahl (DK)
Danish viking marks on stone? 37
Sofia Soares de Figueiredo (Portugal)
Paintings from northeast Portugal: beyond script and art 39
Inés Domingo Sanz (Spain)
LRA (Levantine Rock Art) 44
Bernadette Drabsch (Australia)
The Wall Art of Teleilat Ghassul, Jordan: When, Where, Why, to Whom and by Whom? 50
Louise Felding (Denmark)
Rock Art: When, Why and to Whom? Two Danish Examples 58
Dánae Fiore, Agustín Acevedo (Argentina)
Hunter-gatherer rock art in two regions of Central-Southern Patagonia (Argentina): contrasting visual themes, techniques and landscapes 63
Natalie R. Franklin, Phillip J. Habgood (Australia)
The Venus of Hohle Fels and mobiliary art from Southwest Germany 69
Marisa Dawn Giorgi (Australia)
Chalawong: a forgotten site 74
Philippe Hameau (France)
A commemorative schematic iconography in the Neolithic period 79
Arnaud F. Lambert (USA)
The cup-marked stones of Chalcatzingo, Morelos, Mexico, a multi-millennial tradition of inscribing the landscape 83
Arnaud F. Lambert (USA)
The olmec-style rock paintings of Oxtotitlàn Cave: new insights and interpretations 86
J. David Lewis-Williams (South-Africa)
San Rock Art 91
Kenneth Lymer (UK)
The prehistoric petroglyphs of Terekty Aulie in Central Kazakhstan 97

Images in time: an overview of rock art manifestations in the Fiambalà region (Catamarca, northwestern Argentina)

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Introduction

The Fiambalá region has several distinctive settlement and chronology features. It has been archaeologically defined as a wide territory with scattered settlements and a low population density, based on the interdisciplinary research carried by the Proyecto Arqueológico Chaschuil-Abaucán[1] (PACh-A). There is evidence of environmental instability as a result of volcanic events. There is a selective discontinuous occupation of the lowlands and highlands during the first millennium. This is followed by depopulation of the lowland areas of the valley by the displacement of people towards the ravines and highlands 1250–1000 BCE. There is a later resettlement of the lowlands that coincides with the improvement of environmental conditions (after 1250 BCE) and the arrival of foreign populations in the frame of the Inca conquest, resulting in the coexistence of different interacting lifestyles during this process (Ratto *et al.* 2012; Ratto, 2013).

Rock art images and media are of fundamental analytical value during socialization processes, where visual preferences are expressed and ways of seeing are constructed (Gell, 1998; Morphy 2009; Jones 2007, among others). In each context, visual manifestations help to delineate lines and body movements (Quesada, Gheco 2011). The production of any visual depiction involves the transformation of specific raw materials into images by means of different techniques and the use of specific elements and artefacts. This creative process requires the investment of energy, time, skills, manual dexterity, knowledge and perception (Fiore, 2007). This theoretical premise is the basis for our approach to the study of rock art in the Fiambalá region (Province of Catamarca, Argentina) (fig. 1).

The distribution analysis shows that in this region rock art is restricted to specific locations in the valley (1,400–1,800 m above sea level, m.a.s.l.), the ravines of the Sierra de las Planchadas y Narváez (3,000–3,500, m.a.s.l.) and the Cordillera de San Buenaventura (2,700–2,850 m.a.s.l.). The sites do not present enough sedimentation to characterize or date the archaeological contexts. There is also no evidence of overlapping images, recycling or marked differences in the shades of patina. Consequently, dating was carried out by comparison with documented images from: rock art in extra-regional sites dated with absolute calibration (Aschero 1999, and others) and images on other types of materials (ceramic and textile) in sites in the Fiambalá region and neighbouring areas also temporally calibrated (Basile, 2012; 2013). This allowed us to time the production and use of rock art at the different periods of development of peasant communities in the region. There is no rock art related to hunter-gatherer groups, probably due to the effects of the volcanic eruptions (Fernández-Turiel *et al.,* 2013; Ratto *et al.,* 2012; Ratto, 2013). During the first and second millennium shown here, communities used different ways to define, construct and place the images. Rock art was usually placed on selected bedrocks either on or near natural paths that connected settlements located at different altitudes and allowed access to a particular kind of resources or productive spaces (Ratto *et al.,* 2012; Basile 2012). All the regionally recorded rock art sites were assigned to three periods. The earliest images, found at Las Papas and La Salamanca cave, were assigned to a still undefined moment predating the start of the first millennium CE. Other images were contained in the first millennium CE at Suripotrero, Alero Peña Abajo 1, Piedra Grande and Los Morteros. Only one site, Guanchincito, contained images dating to the second millennium CE during the Inca state conquest.

We present a brief discussion of the regional rock art, trying to address the questions of when, why and by whom it was made. In order to do so, we analysed the continuities and changes over time of the types of images as well as the way they were executed and the places where they were displayed (Basile and Ratto, 2011).

1 This is the generic name given to the different research projects since 1996, financed by several scientific and academic agencies under the direction of Dr N. Ratto.

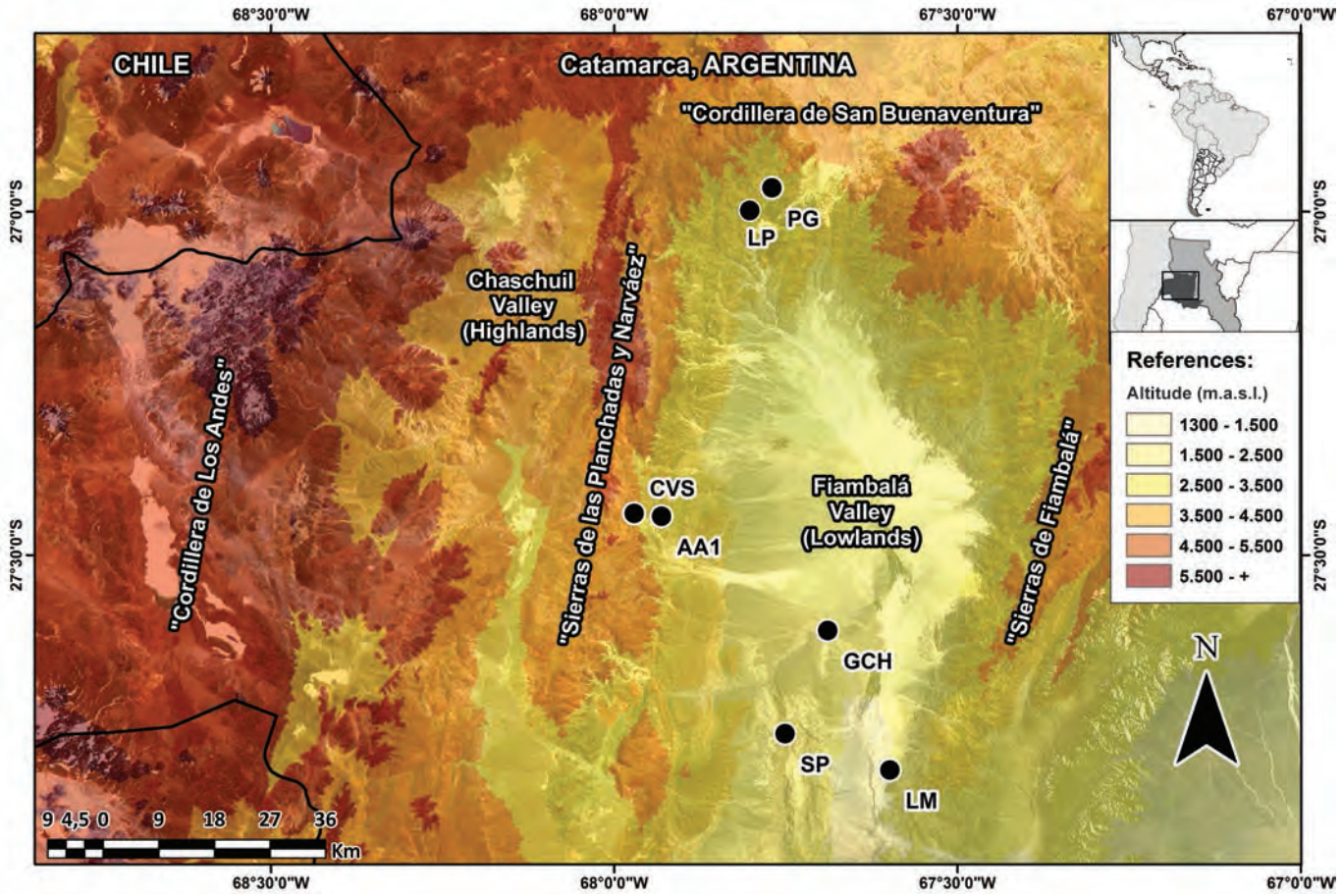

Fig. 1. Map of the Fiambalá region showing rock art sites and principal geographical locations. Key: CVS: La Salamanca cave; LP: Las Papas; PG: Piedra Grande; SP: Suripotrero; AA1: Alero Peña Abajo 1; LM: Los Morteros; GCH: Guanchincito.

The earliest images

The earliest rock art manifestations are at two sites. The first one is the only cave with painted designs in the region (La Salamanca) and the other consists of a group of engraved blocks associated with a path (Las Papas) (fig. 2).

La Salamanca cave is in a narrow ravine with restricted access. The cave does not receive direct sunlight, resulting in a cold, wet and inhospitable place that has no evidence of having been inhabited permanently or temporarily. There were also no artefacts or biofacts in the excavated cave deposits, neither was there any soot adhering to the rock walls (Basile, Ratto, 2011). The inner space of the cave is small. It is located in a perpendicular ravine some 800 m away from the main connector that links the regional lowlands with its highlands. Therefore, it is not located on a main connecting trail. All the paintings are displayed on the roof and the high part of the lateral walls that received the better solar illumination, but they cannot be seen from afar. As a consequence, the cave would have been difficult to find unless you had a previous knowledge of its specific location. We believe that the cave was a secret place, protected with special symbols, which might have been used for some kind of ritual by specific or small groups of early farmer communities moving along these paths.

Las Papas consists of 184 images engraved on 23 blocks displayed along a path going towards the valley lowlands. This path avoided transit along the river when it flooded, but also marked the beginning or end of an extra-regional communication line with the southern Puna.

Most of the images documented at both sites are non-figurative designs (zigzags, curvilinear crosses, simple and concentric circles). These kinds of images are not present in the thematic repertoires of the remaining sites assigned to the first or the second millennium CE in the region. It is on this basis we

believe that they predate the beginning of the first millennium and are related to the early agropastoral societies which inhabited the region. Additionally, at Las Papas there are patina variations between most of the non-figurative images and the few figurative ones (camelids), suggesting different execution times. The latter are associated with more recent engraved images that were probably done during the first millennium. This reinforces our classification of most non-figurative designs documented at both sites as the earliest images known in the Fiambalá region.

First-millennium rock art scenario

Rock art sites related to this moment in time are located in places where there is no restriction to the number of people frequenting them. They are also located on blocks or panels with viewing conditions indicating long-distance visibility and probably serving as signalling structures at certain points in the landscape along the paths that traverse the region. All these paths would have been well-known and used by small-sized groups of people who regularly accessed the highlands, traditionally considered a hunting space (Ratto, 2003). Nevertheless, these images are also signalling a different kind of path. Some images are placed along regional paths that link valley lowlands with productive areas at middle or high altitudes (hunting, herding or farming zones). There are three engraved bedrocks located at these spaces (Suri Potrero, Piedra Grande and Alero Abajo 1 with 40, 24 and 34 images on each respectively). Others are located 0n extra-regional paths that mark the access to the eastern valleys (Los Morteros, 66 images engraved on four blocks) (fig. 3).

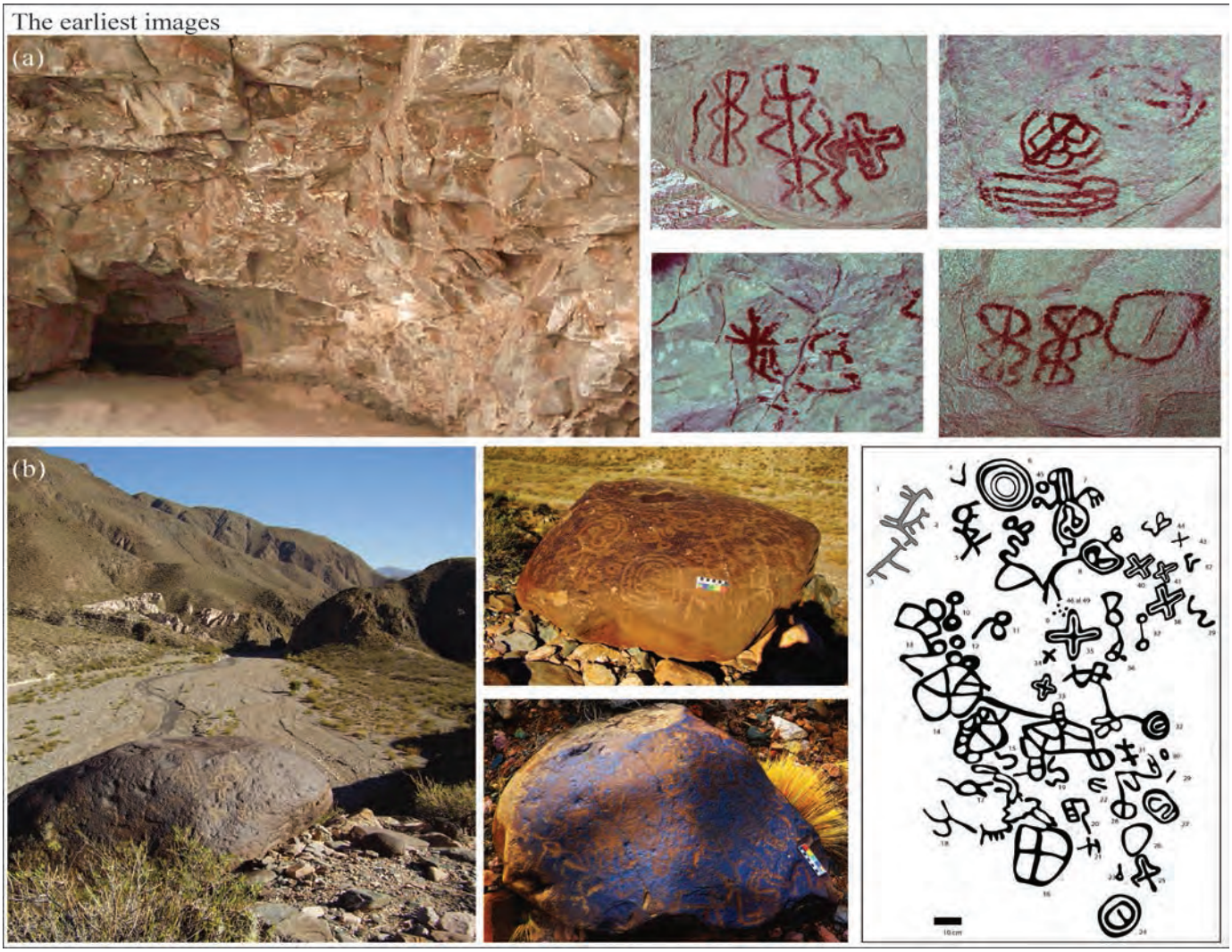

Fig. 2. The earliest rock art images of the region. Some examples from the sites: (a) La Salamanca cave and (b) Las Papas.

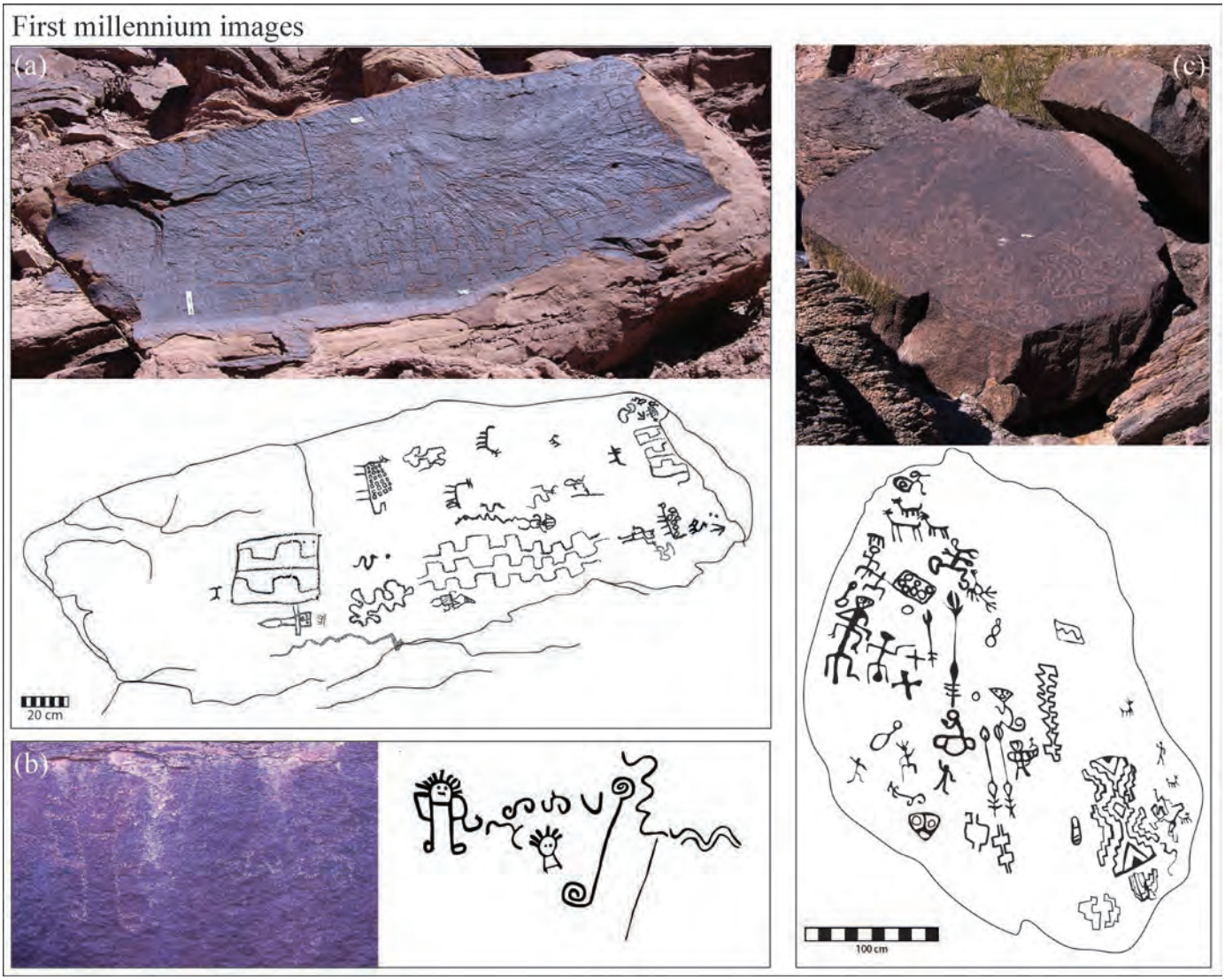

Fig. 3. First-millennium engraved images. Some examples from the sites: (a) Suripotrero, (b) Los Morteros block 1 and (c) Los Morteros block 2.

The types of images documented on these sites correspond to the repertoire assigned to the first-millennium societies: four-legged camelids, felines, feline-like animals, animal tracks, some kind of anthropomorphic figures and non-figurative designs (Basile, 2012; 2013; Basile, Ratto, 2014).

All these rock art sites assigned to the first millennium contributed to configuring places of transit that were visually and spatially segregated from places where everyday activities occurred. They are also segregated from the dwelling places of both the living and the dead (villages, temporary posts, crop fields or burials). Societies inhabiting the Fiambalá region during the first millennium lived in villages located in the valley lowlands, but they still maintained a high level of mobility through the landscape of the region. We believe that small-sized groups of people moved across the territory, through connecting paths that linked the lowlands and the highlands, and used transitory posts located at middle or high altitudes for herding or hunting. It is possible to imagine for this period a territorial structure based on specific places of settlement and paths that connected them all through the region (Bradley, 2000; Ingold, 2000).

Second-millennium rock art scenario

The later regional rock art is distinct from the earlier in several respects. The engraved images are distributed on 22 engraved blocks placed along one of the paths connecting different altitudinal points in a south-north-south direction in the valley lowlands (Guanchincito, 256 images) (fig. 4). But this site is

also associated with a vast area of agricultural fields with burial structures inside (Ratto *et al.,* 2000–02; Orgaz, Ratto, 2012). According to available dates, occupation of this place spans approximately the years 700–1400 CE. Nevertheless, these agricultural fields were abandoned, together with the rest of the valley lowlands, around 1000 years C.E. and reactivated after 1250 years CE. This is based on the fact that the regional lowlands were not fit for human occupation for many decades, owing to the environmental instability that started around the year 1000 CE (Ratto *et al.,* 2012; Ratto, 2013). The engravings have been associated with farmer societies which entered the region with the Incan conquest and after the valley's environmental conditions improved.

Within the thematic repertoire there is a predominance of images that are typical of the second millennium (hooks and simple and compound spiral strokes, two-legged camelids and some synthetic anthropomorphic figures) over those referring to previous times (feline, feline tracks and feline-like animals, see above). We believe that all the images engraved on these blocks belong to migrating farmer populations that entered the region with the Incan conquest, evoking the

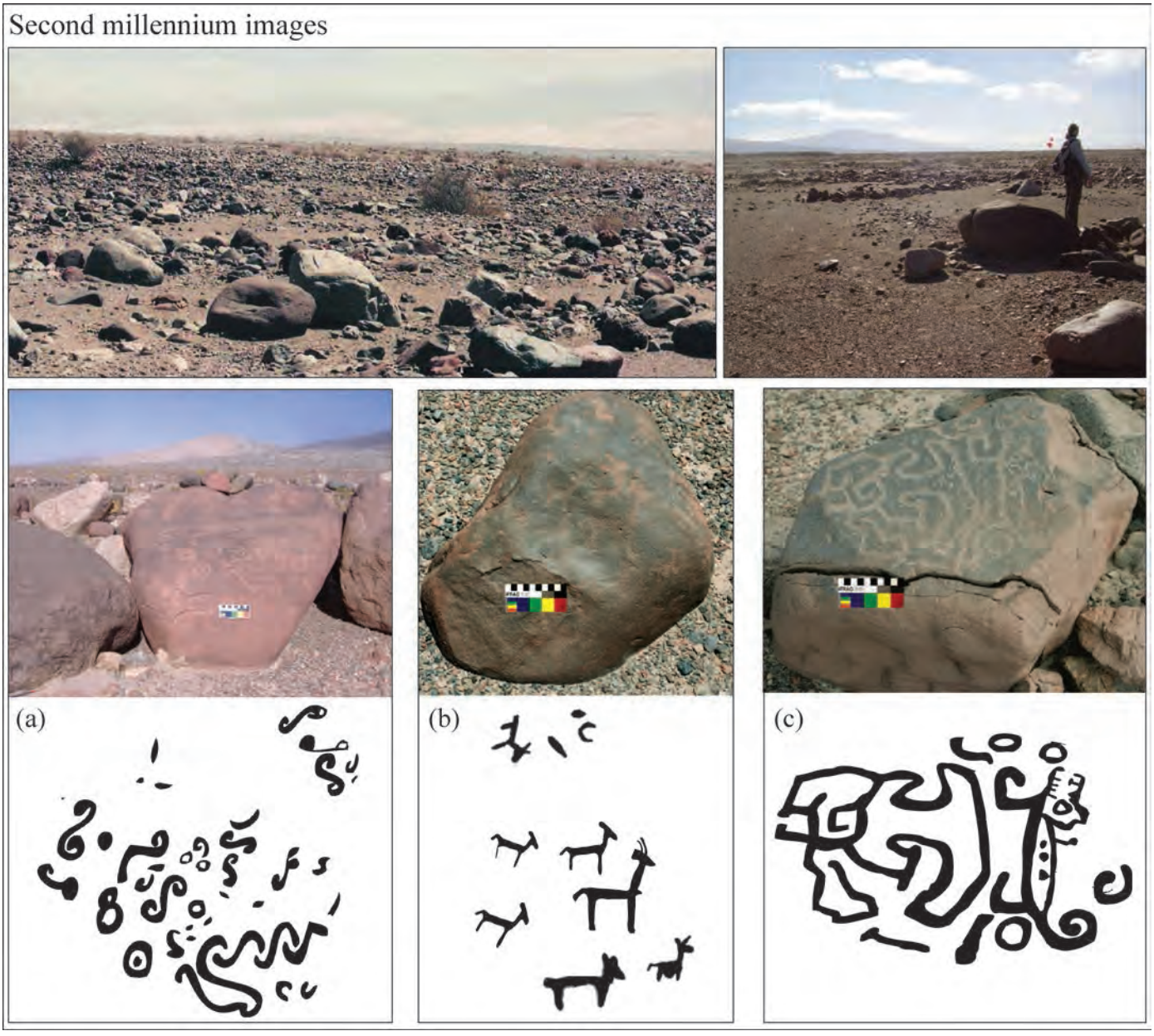

Fig. 4. Second-millennium engraved images. Some examples of the images typical of (a), (b) the second-millennium societies and (c) the first-millennium societies displayed on Guanchincito engraved blocks.

ways of image-making and history of the earlier rock art sites. This statement is based on the substantial differences between this site and those ascribed to the first millennium CE.

The landscape of Guanchincito was constructed implementing a visualization strategy for the whole site, with the intention of hiding the 256 images displayed in the 22 visually intervening blocks. This strategy contrasts markedly with that carried out in earlier rock art sites (see below). There is also no evidence of overlapping or differences in shades of patina or execution techniques. Therefore, we believe these images are an expression of the relationship between the populations entering the region under the Incan conquest and the local populations that kept certain previous stories alive in the context of the new political conditions of domination. In this way, a meeting place between the living and the dead was created where a shared use of productive areas prevailed or was legitimated. It was a landscape in permanent construction that had great significance and condensed a memory materializing in the combination of images from different moments of regional history in a political context marked by the Incan domination strategies (Basile, Ratto, 2014).

Concluding remarks

The earliest rock art images and those dating to the first millennium in the Fiambalá region are mainly located on or near naturally connecting paths that communicate the lowlands with the highlands. New engraved blocks were recently reported to us by the current population of the Fiambalá region. These rock art sites have not been analysed yet but they are also located inside ravines that naturally connect the region's different heights. Rock art was made by and for groups of people who regularly used those paths and whose production and consumption activities were separated from dwelling places.

This changed during the second millennium. At this time, engraved blocks were still associated with regional paths but were also linked to a vast area of agricultural fields and burials. The production and consumption of engraved images at this moment were connected to other daily activities such as farming, food production and burial. These changes were related to the new political context in which these societies were immersed.

Nevertheless, there were certain images, techniques and methods of execution that prevailed through time whereas others are observed more frequently in early times and then fell into disuse. We believe this to be the result of a dynamic articulation between people who inhabited the region in the first and the second millennia CE. The absence of images typical of later times engraved on first-millennium bedrocks and the presence of emblematic earlier images on second-millennium blocks signal that ideas and stories behind these images and on marked stones were available for interpretation, reinterpretation and transformation through the ages.

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The Rock Art of Tunisia: When, Why and to Whom?

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Rock art documentation in Tunisia is limited, due more to the lack of scientific research than to evidence in the field. In fact, after a long stagnation period marked by a few works (Roux, 1911; Solignac, 1936; Gragueb, 1988; Gragueb *et al.,* 1991), renewed field research (Ben Nasr, 2001–02; 2007; 2011; 2012; Yahia, 2007; 2009; 2011), has revealed that rock art in Tunisia is not as rare as it was thought and that the Tunisian territory has a great potential.

The best-preserved and richest rock art images so far are the paintings and engravings of Jebel Ousselat (central Tunisia), the rock paintings of Ghomrassen (south-east Tunisia) and the engravings of Douken Jefara (Redeyef, central west Tunisia).

Thus, drawing on the limited data offered by rock art iconography of these sites, I will attempt here to synthesize and answer the following questions: when, why, and to whom?

Needless to say, answering these substantial questions is relevant to our understanding of rock art as a source of knowledge about prehistoric groups, their lifestyle, and their symbolic and spiritual thought.

Images and chronology

As any direct dating is missing, whether it is provided by rock art images or by the associated archaeological material, the chronological position of Tunisian rock art sites remains critical and open to doubt. However,

Fig. 1. Ancient buffalo (Ramada shelter, Jebel Ousselat).

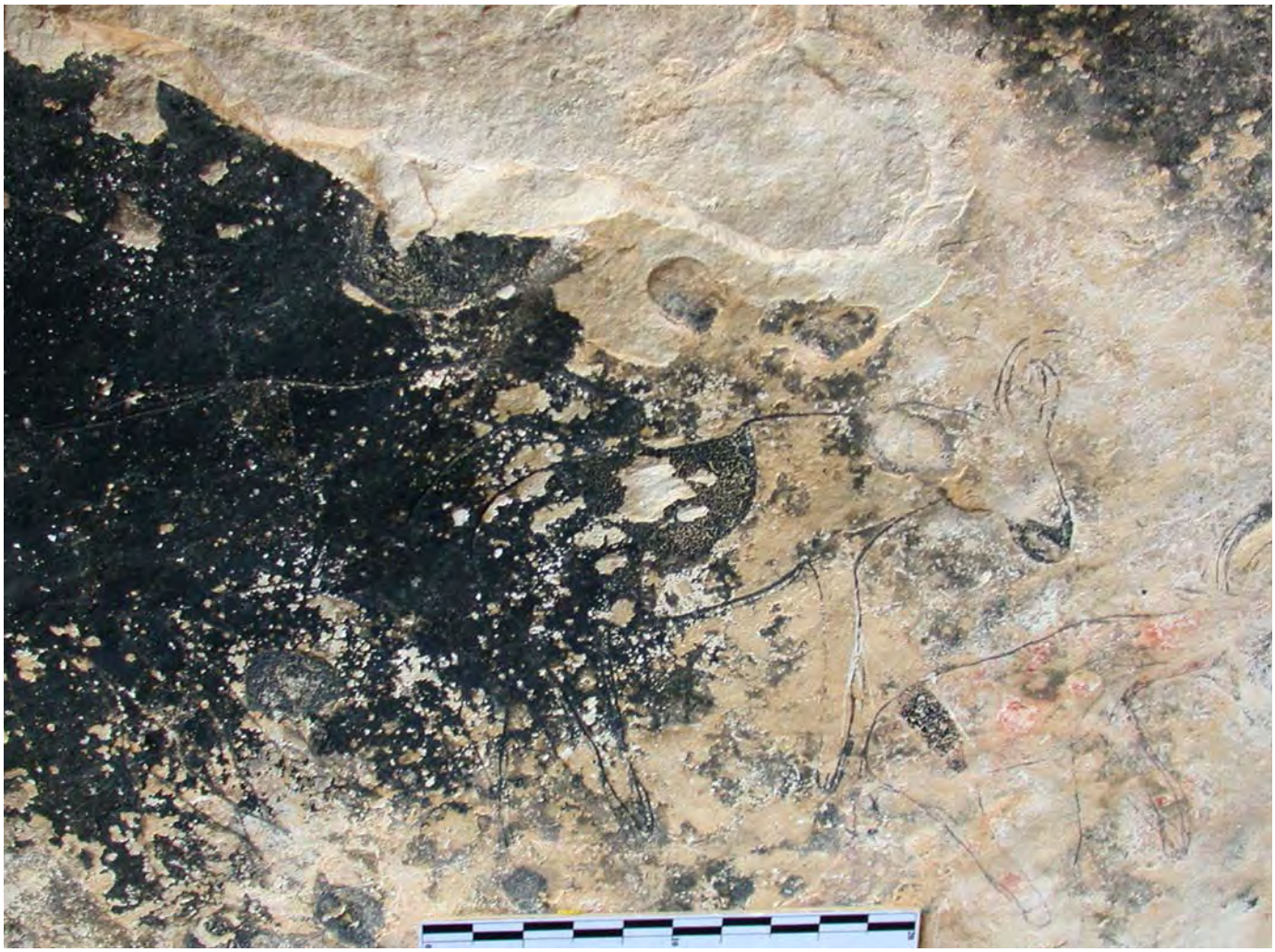

Fig. 2. Domestic rams (Dar H'ssine cave, Jebel Ousselat).

despite the fact that sites with rock paintings are not numerous, the painted and engraved iconography allows us to draw interesting chrono-cultural data.

Several conventionally recognized styles and periods of Saharan rock art are represented in Tunisia. The Bubaline naturalistic style is attested in Jebel Ousselat[1] (Kairouan region, central Tunisia), precisely in the Ramada shelter (Ben Nasr, 2007; 2012; Yahia, 2007), which contains the oldest engravings of Tunisia judging by the style and the fauna represented.

The engravings indeed show wild fauna (rhinoceros, ancient buffalo, antelopes, swine) (fig. 1) and of domestic fauna, in addition to dog, rams (some of which are adorned) and domestic cattle. Dar H'ssine's cave, a few metres away from the Ramada shelter, also yielded fine coloured engravings of domestic cattle and domestic rams (Ben Nasr, 2011) (fig. 2).

The engravings of the Ethiopian fauna may date back to the Neolithic Wet Phase (between 6500 and 4500 BP), a uniform and relatively enduring climatic event, which allowed an expansion of bodies of water and, therefore, the wild fauna as well as the development of pastoralism (Ben Nasr, 2007).

Furthermore, one cannot exclude that a part or even all the engravings of the Ramada shelter are possibly the work of herders compelled by the climatic conditions of the post-Neolithic arid phase (after 4500 BP) to move to the Ousselat mountain, which has maintained a sufficient humidity rate and thus formed a region with a rather favourable climate which sheltered residual fauna until these were definitively removed by the climatic deterioration of 3500–3000 BP.

Presumably, the paintings of Chaabit El-Maarik

1 Twenty painted and engraved shelters were inventoried in the Ousselat massif.

(station No. 1, Shelter No. 2) (Ghomrassen, south-east of Tunisia) date back to the same period (the last great post-Neolithic arid phase).The rock art iconography, mainly consisting of wild fauna (*Oryx dammah, Gazella Dorcas*, elephants, ostriches and lions), did not reveal any other typical details about the lifestyle of these artists which might be used as cultural markers (Ben Nasr, Ghourabi, 2007).

When it comes to the so-called Tazina style, vaguely identified in some engraved subjects of the Ramada shelter (Jebel Ousselat), it is indubitably present in the Douken Jefara site (Redeyef Region, southern Tunisia) in the extension of the Saharan Atlas.

The site is indeed distinguished by a density of engravings unparalleled in Tunisia. The Tazinian engravings, of all dimensions, whether fine or deeply incised in rock, show shepherds, domestic dogs, cattle and ovicaprids, either singly or in herds, alongside wild animals (ostriches, antelopes, hyenas). All of them refer to a pastoral atmosphere.

Nevertheless, there are no depictions of painted or engraved real bovidian or pastoral scenes (as in the bovidian Saharan scenes), whether in Jebel Ousselat (Aïn Khanfous, Oued Chaara, Bourrime, Ramada and Dar H'ssine) or in Jebibina (Zaghouan, in the north region of the country) or in the south in Ghoumrassen (Ain Sifri, Taguet Hamed and Chaabit El-Maarik). There are only representations of a few figures which are either isolated or set in iconographic contexts which are not significant enough to be openly acknowledged as pastoral scenes.

The Caballin and Camelin periods, which come later chronologically (on the edge of historical times), are also represented in Ghomrassen paintings (Chaabit El-Maarik; Station No. 1, shelter No. 2) (Ben Nasr, Ghourabi, 2007) and in Jebel Oustalet's paintings (El

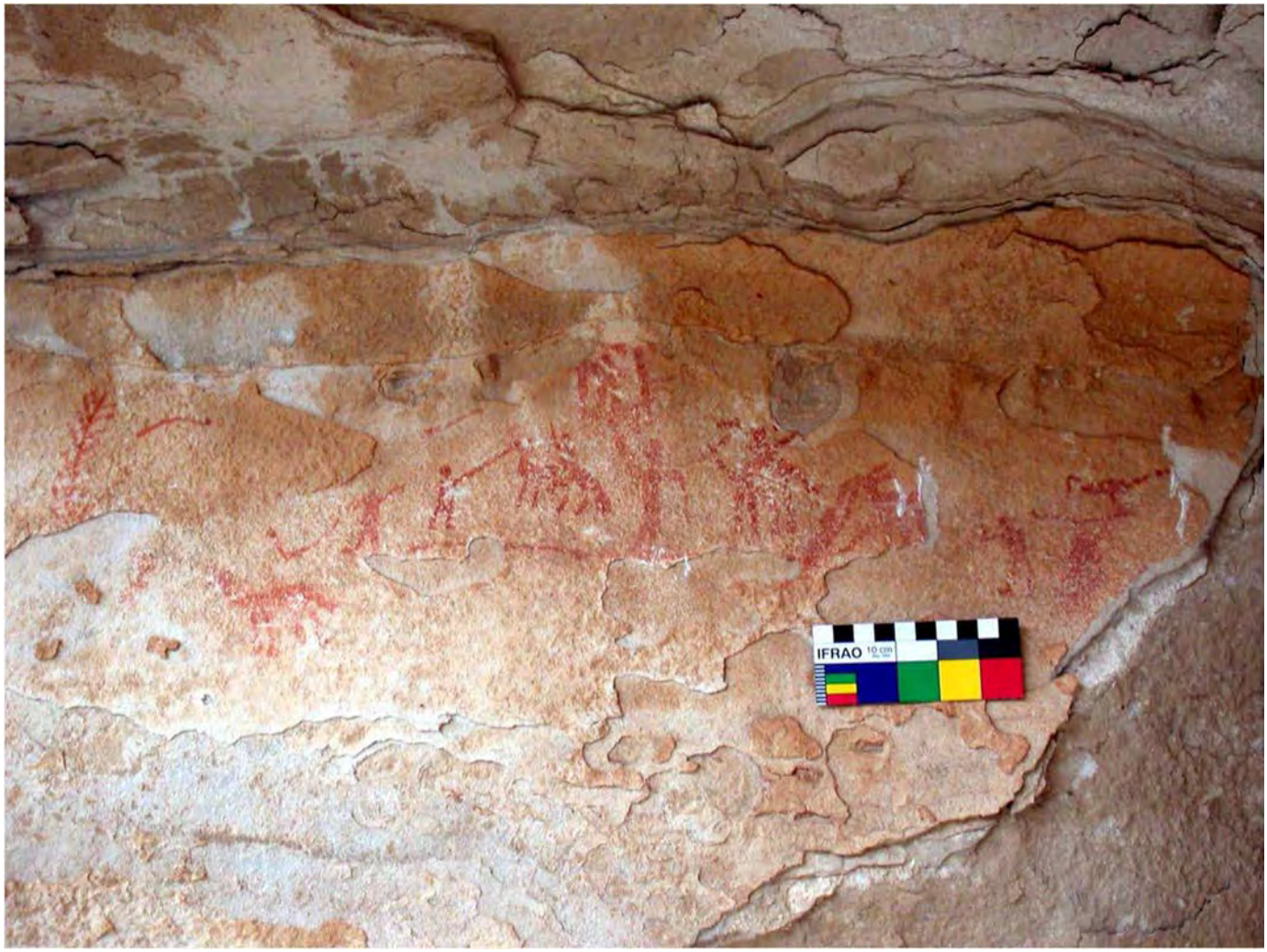

Fig. 3. Camelin paintings (El Guelta el Berda shelter, Jebel Ousselat).

Fig. 4. A decorated ram (cephalic attribute and collar) combined with an anthropomorphic figure wearing an animal's skin (Ramada shelter, Jebel Ousselat)

Guelta el Berda's shelter) (fig. 3) (Ben Nasr, 2007, p. 53).

A series of rudely dotted engravings have been recorded at Jebel Ousselat (Ain Khanfous and Dhraa Lassoued), portraying horsemen armed with spears and javelins, a distinctive feature of the Libyco-Berber period, in addition to a few Libyc characters. The paintings on the shields and probably a few painted Libyc characters inventoried in a small cave of Jebil (Jebel Ousselat) (Ben Nasr, forthcoming) calling to mind those of the Chendoub shelter as well as Grabich and Kef Bibina paintings (showing the same type of round shield recorded at Jebil), are to be connected to this last phase of rock art.

What can these images convey?

Reading rock art is complicated when its meaning is searched for, deciphering its messages and tracing the mentality which guided its realization in order to grasp the motivations of its creators.

In fact, attempts to draw on the impulses of prehistoric artists, to unravel their real motivations and identify the reasons behind rock art works broadly belong to the subjective and arbitrary realm. Is rock art simply a message? But what kind of message? Could it be inter-human messages or just a kind of communication between the worlds of the living and the spirits?

It can also be an act of commemoration, of memorization, or one aimed at immortalizing, so to speak, the marking moments in the lives of groups and individuals. It can equally be a form of pictorial communication which paves the way for handwriting, or simply the result of an arbitrary form of entertainment lacking any communicative or symbolic reference.

Tunisian rock art is performed in full daylight on the walls of shelters and small caves along the banks of wadis (river valleys which are dry nowadays), near which, a thousand years ago, some human groups either permanently or temporarily settled, then set their artworks on rocks, thus revealing their typical manner of seizing the moment, defying time and, above all, of lingering through space and memory.

A major part of rock painting images refers, explicitly, to a kind of realistic art whose main motivation is depicting certain aspects of daily life: pastoral scenes (Doukken Jfara-Redeyef), fighting scenes (Jebibina and Guelta Berda-Jebel Ousselat), or scenes of archers (Ain Jebel Khanfous-Ousselat). Still this everyday nature is not the only reason behind the desire to

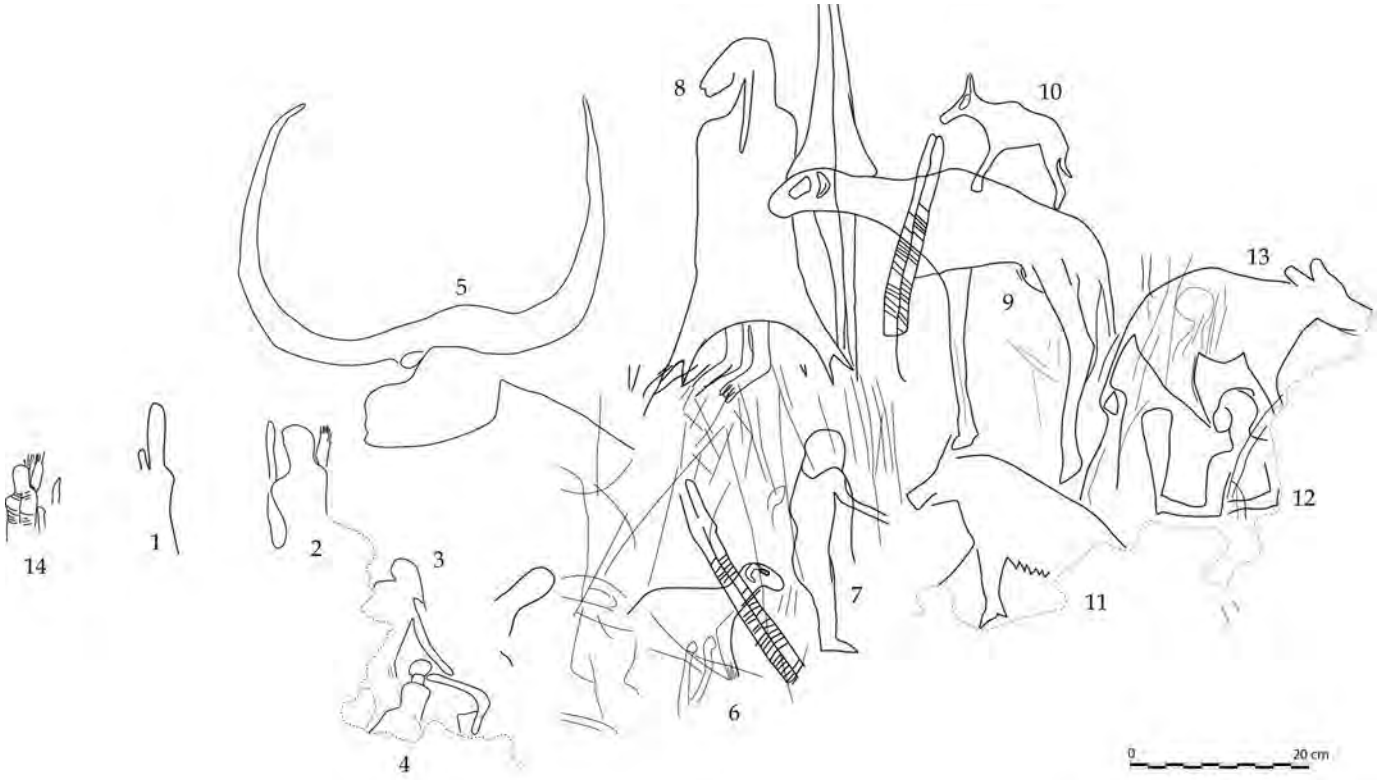

Fig. 5. Tracing of surfaces of figs. 1 and 4.

paint and engrave. Rock painting images are indeed not always easily decipherable.

In fact, some of the rock art compositions are explicit enough, disclosing a ritualistic and mythological aspect. Their highly symbolic connotation can bring about different possibilities of interpretation. One may consider for instance the therianthropes (probably involved in a hunting scene) identified in the paintings of Chaabit El-Maarik-Ghomrassen, whose exact nature is still questionable: masked men participating in a hunting scene, gods or surreal heroes (Ben Nasr, Ghourabi, 2007)?

Moreover, the Jebel Ousselat engravings (Ramada shelter) provide an interesting iconographic record showing a decorated ram (cephalic attribute and collar), which refers to the famous ram with spheroid of the Saharan Atlas, combined with an anthropomorphic figure wearing an animal's skin in a noticeably symbolic posture. It is seemingly an adornment skin, the wearing of which is tied to actions or ceremonies of a ritualistic nature (Ben Nasr, 2007) (fig. 4). This scene is particularly interesting in as much as it may refer to some prehistoric ritual whose relics still exist today.

The anthropomorphic wearing of an animal's skin hints at the Boujloud character or the man dressed in animal skins (sheep's or goat's), present in the rites of the Berber mountaineers' carnival in the Atlas and southern Morocco. Boujloud can be the lord of the river, hence the existence of some connection between this figure and a wide-ranging rite of water in the Maghreb (rain or even river flood rites) (Joleaud, 1933). This interpretation is enhanced by an investigation of ethnographic data available for the Maghreb as a whole.

Other abstract themes (as signs of an elementary structure) remain enigmatic and do not provide any possible satisfactory semiotic reading, although they could still hold a specific meaning.

However, a few geometric and punctuated painted signs from Jebel Ousselat, from Grabich (Ben Nasr, 2001–02) and Jebil shelters (Ben Nasr, forthcoming), might represent Libyc alphabetic characters.

Despite its diversity, the rock art iconography available in Tunisia is still somehow sparse and does not allow suggestions of a coherent timeline, or a relevant reconstruction of the cultural and symbolic system. Thus no more than a few basic answers are provided to these questions (answers which bring about other further inquiries). Nevertheless, the possibilities that

new rock art materials could come to light and allow us to fill in these gaps are great and the present-day Tunisian territory may potentially offer a wealth of rock art collections.

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Lluta Valley, Atacama Desert, Chile

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Place: Northern Atacama Desert, Arica (Chile)
Site: Lluta Valley, 60 km (37.3 mi.) from Arica
Panel: "...los extraterrestres..." (the extraterrestrials)
Size: 2m by 3m (6' x 9') approximately
Glyphs: Petroglyphs

Fig. 1. View of the archaeological site in the LLuta Valley, Arica, Chile. (Author's photograph).

This site has a peculiar rock with engravings: 'The Extraterrestrials Panel'. What is the message behind the images? Are they the recording of an event or of a myth?

When

The site, where the *extraterrestrials* panel is located, was not scientifically dated (carbon dating or other) and no detail study was ever done. Its approximate size is 2m x 3m. The general agreement seems to place this site from 400 B.C. to 1400 A.D., but it could be older. The exact date of petroglyphs is related to the time it was made, but the content they convey could concern an oral ancient tradition. This site and this panel belong to the Andean costal agricultural natives, that only in 1950 were referred to as the *AYMARA* people and it seems to convey a belief of a fact so ancient that the author could not have been present at that time: the myth or the story of the presence of extraterrestrials on earth in the down of time, their coming to earth via space flight and their influence in the development of homo sapiens?
When in 1962 I visited, photographed and studied the majestic site, this panel was not visible. It appeared sometime in the decade of 1980 from under the steep sloping and debris at the base of the rocky side of the valley. It seems that the coastal mountain chain in the north of Chile may have been rising during several strong earthquakes exposing this long time buried panel.

Why

Panel *...los extraterrestres...* (the extraterrestrials), as I named it. Was it done to record what they knew about ancient beings called *gods* that came down from the sky? Certainly, in the traditional oral word of history and in the cultural traditions of the natives of the Andes there could be imaginary miths, however this panel account seems to coincide with other glyphs and sites in other parts of the world and with some tentative recent hypotheses.

It took several tries and hours of waiting for a sufficient sunlight to take pictures, due to the location of the panel and the fainted figures eroded by time. To trace the content of this panel presented other problems. The use chalk tracing or watering, all destructive methods, were out of question. So we adopted the following time consuming but safe and pretty accurate method to this panel and to all the 90 figures of the site:
1. Scan the picture into the computer and project it in an external colored 27" old style TV.
2. Cover the glass of the TV with a thin clear type plastic sheet.
3. Trace the content with a fine point permanent black marker.
4. Scan the content of the plastic sheet back into the computer.
5. Resize the tracing to the original picture.

Fig. 2. Petroglyph panel photographed by the author in 1998 in Lluta of, Arica Chile.

Fig. 3. Tracing of the content of the whole panel obtained with our method.

Fig. 4. Tracing superimposed to the picture.

Is this art, imagination or a statement of knowledge of some events of prehistoric human history handed down for generations? Can we interpret the content of this panel with modern scientific means? Let us examine this content by sections:

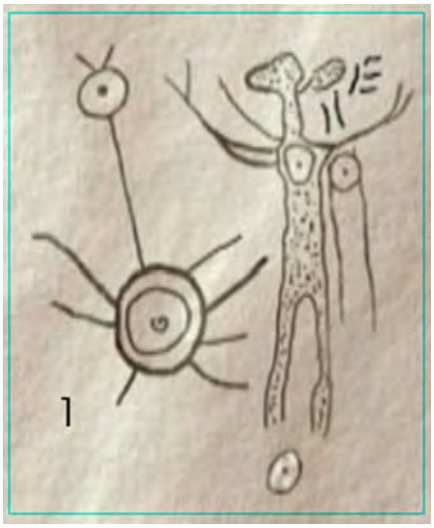

Fig. 5. Two anthropomorphic figures, arms raised as in wander, with a center small dotted circle on their chests, looking at a center dotted circle (a planet?), tied (gravitating?) to a bigger double line dotted circle with rays (the sun?) *...Extraterrestrials looking at their home planet appearing in the sky...?*

Much is said pro and con about the hypothesis that at one time in the fog of the past some beings (called gods) came from heaven down to earth. There is no scientific evidence to be certain, but we do know that our civilization today has reached a turning point in history and space travel with us is a reality. Did our ancestors have knowledge that some beings, came down from the sky? And if so, could this figure be a statement of such a fact?

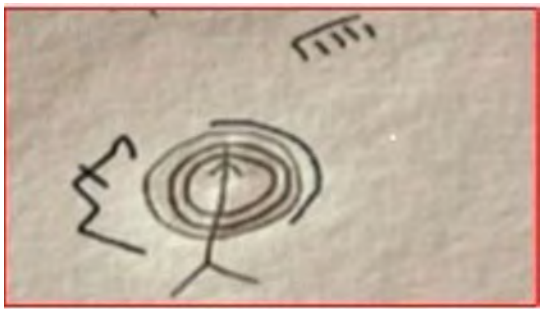

Fig. 6. Symbol of planet earth at the top and the way of entry into our solar system to reach earth at the bottom?

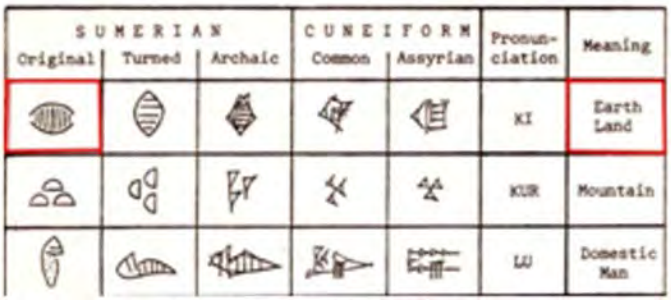

Fig. 7. Earth pictograph in Sumerian table.

Descending artifact?

Fig. 8. Rocket?

Fig. 9. Tracing of Crete's seal by H. Frankfort.

In the reproduction engraving of the above seal found in Crete by H. Frankfort, dated 800 B.C., there is a representation, with all clarity, of what may appear as a rocket crossing the sky propelled by flames exhausting from the rear. There seems to be a striking similarity between LLuta's petroglyph and the Crete's seal.
We cannot deny that among the millions petroglyphs recorded all over the world, there is a good number of images really showing some kind of unknown artifacts roaming in the sky!

Fig. 10. Lluta petrogliphs.

Fig. 11. Sumerian pictograph.

SUMERIAN			CUNEIFORM			
Original	Turned	Archaic	Common	Assyrian	Pronunciation	Meaning
					KI	Earth Land
					KUR	Mountain
					LU	Domestic Man

Fig. 12. Man pictograph in Sumerian table.

Homo Sapiens ? The author of this panel must have considered that between thousands of figures available to be chosen, this glyph, was for him of the highest importance. Its value could be determined today for possibly representing one of the big turning points of the history of mankind: the apparition of homo sapiens suddenly and not in accordance with normal evolution development.
The big question though is ...what is this figure doing in a panel depicting extraterrestrials...? A remainder ... a statement of whom made the change?

To whom
The glyphs are the oldest *text* of humanity. This site and every other site in the world are open text in open air, made by volumes, books, chapters and words to preserve history, art, culture and beliefs. Was this panel intended to preserve on stone certain important prehistoric happenings then transmitted by words of mouth so that the future human generations could be informed about?
Until the time that we will be learn to decipher the glyphs, we will not know their real intended meaning. The effort, though, to accomplish this goal is important...and the result will eventually follow.

...we cannot keep looking at the prehistoric glyphs with the old bifocals... we need to use the telescopic lenses of modern science...

"... La variedad de formas, temáticas y contextos culturales sugieren que el arte rupestre del desierto participa en una serie más amplia de prácticas simbólicas, las cuales podrían relacionarse, por ejemplo, con la culturización del paisaje, la transmisión de mensajes de orden ideológico, representación de ciertos principios socioculturales o hechos históricos, entre otros…".
"...The variety of forms, themes and cultural contexts suggest that the rock art of the desert participates in a wider series of symbolic practices, which could relate, for instance, with cultural education of the landscape, the transmission of ideological messages, representation of certain sociocultural principles or historic facts, between others...".

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Meaning in the axe-carvings on Stonehenge

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I have been fortunate in knowing Emmanuel Anati for thirty years now, and all that time admired his energy and imagination, still unflagging today. It was at his Centro in Valcamonica that I first learnt about recording and studying rock-art, in 1984. So I have chosen for my art example a surface known both to me and to prof. Anati, who traced it in close detail in 1975. Perhaps the major surface I have know longest, it is one of the several stones at Stonehenge which bear ancient carvings: Stone number 4, one of the uprights of the outer circle of that famous ancient structure, shaped from sarsen, a very hard metamorphic sandstone, to which carvings were later added. The records made in that fieldwork, his «Mission to Stonehenge», have been in the archive of the Centro Camuno di Studi Preistorici ever since, until just now excavated from it and published (Anati, Gomez, 2014).

A debate is made valuable by differences of view, plainly stated, and there is one certainly here: in my opinion, Emmanuel is wrong when he says prehistoric art always contains messages that can be read and decoded today.

Much art in many traditions is simply decorative. Here are two examples from the western cultural tradition. An example from an urban, literate society may appear to be out of context but it is to those kinds of examples we must turn. By definition, an example taken from prehistory cannot help us, as in prehistory we can have no independent evidence as to whether an image was or was not of symbolic meaning. An example from "tribal scoiety" is attractive but risky, since it is so dangerous to guess that all "primitive and prehistoric" societies – in the habitual phrase used in the west by the 20th-century art market –were essentially the same as regards image, symbol and meaning.

My first example is one of the thousands of "printer's flowers", decorative devices to add a graphic to printed books, especially those like novels which are not illustrated as such: fig. 1 (left). They have been used for centuries in European printed books. Many are the simplest geometric shapes – lines, dots, plain forms like diamonds or squares; others are more elaborate like this one. Others may derive from the shape of objects, like leaves. In whatever variant, they have no meaning, they carry no message.

The same is true of the habit in middle medieval times of decorating doorways in north European churches with geometrical patterns, the 'dogtooth' decoration common in the Romanesque period, and panels of walling with geometric forms: fig. 1 (right). Again, it has not been shown these have a meaning or were intended to carry a message. But alongside these, and in the same structures and made with them, are other designs with meaning and message, the sculptured gargoyles often in the form of human or animal heads, of which there are several in the photograph.

It could be asserted, against this, that prehistoric times were different: in prehistory everything had meaning. But the evidence for that is lacking. If these things were fundamentally different in prehistoric times, then we cannot know what they were by rational inquiry.

My chosen Stonehenge panel is the lower part of a sandstone block, one of a set of 30 (if all were indeed placed there) matching uprights neatly shaped into

Fig. 1. Western graphics without and with meaning or message.
(left) Printer's flower, this 18th-century example more elaborate and intricate in its decoration than many. No evidence at all this design, or the varied decorations collectively called "printer's flowers", had symbolism, message or meaning.
(right) Design without and with meaning on a Romanesque church, Ely Cathedral, England, 12th century AD.
"Dogtooth", deep zig-zag carving around the window opening, and geometric triangles carved on the wall. Again, no evidence at all these decorations had symbolism, message or meaning
Above and below the dogtooth, some gargoyles, sculptures usually of human or animal faces or heads, with meaning according to what they depict. (Photograph by the author).

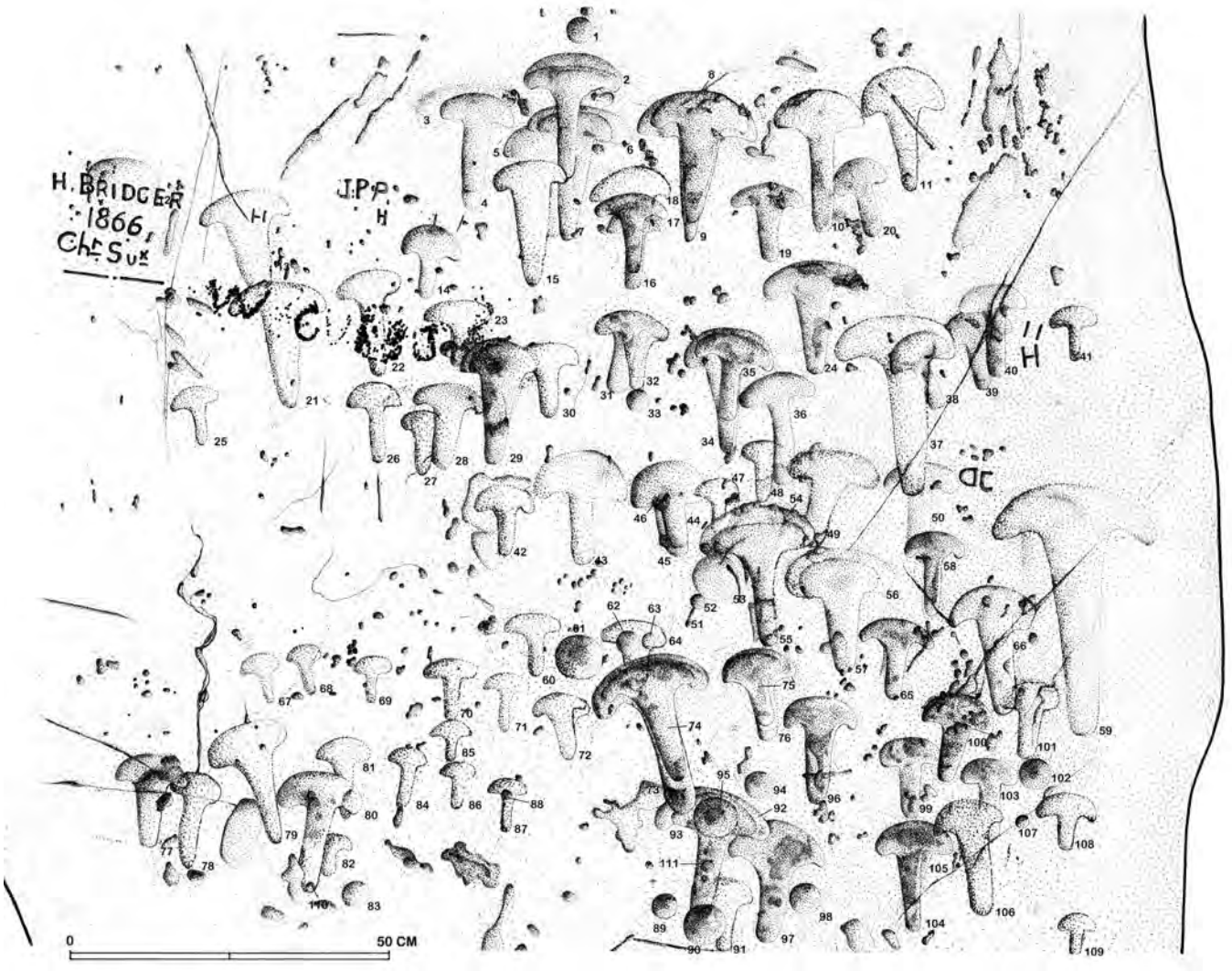

Fig. 2. Drawing of the axes and other prehistoric carvings on Stonehenge Stone 4, as published in Anati and Gomez (2014).

cuboids by cutting down natural boulders. Together they make a circle of about 30 metres internal diameter. Each stands in a hole cut into the chalk bedrock below shallow soil to hold it firm, and supports (or did support, for most of the horizontals are missing) two smaller horizontal stones – "lintels" – linking the top of each of its neighbours. This stone setting is now dated with reasonable confidence to about 2600–2400 calBC (Pearson *et al.*, 2007) or a little earlier (Darvill *et al.*, 2012).

An area of about 2.5 square metres on the outer face of stone 4 bears carvings (fig. 2). Beginning with the first notice of some in 1953, 26 were recognized. (It is a curious fact that these and other ancient carvings even clearer had not been noticed before that year although Stonehenge had been famous and much frequented by observant and studious visitors for centuries.) All these markings so closely follow the form of Bronze Age metal axes that we can be confident that subject is what the images show. The axes are so clear and consistent in form that they can be matched with actual objects, those metal axes called of the "Arreton Down" tradition (named after a site they were found), and thereby the carvings are dated around 1750–1500 calBC. Notice we can imagine the axe pictures may be images of axes as such, or the axe may represent indirectly something else, something of which an axe is the representation, symbol or indicator.

This study of Stone 4 – the surface is very rough and eroded, so it is hard to identify every carving with confidence – found many more, altogether 91 axe-heads on this one surface, also 19 humanly made cup-marks (not natural hollows), and a straight line (Anati,

Gomez, 2014). Independent fieldwork more recently using 3-dimensional laser-scanning identified fewer: 59 axe-heads, but no cup-marks (or anywhere else at Stonehenge, where all the hollows are considered natural by those researchers) and no straight line (Abbott, Anderson-Whymark, 2012)[1].

The axes on these and other Stonehenge surfaces are consistently placed with their cutting edges upright, not as one imagines their being used to strike and cut downwards; and none have a haft, although we know from axes found in bogs where timber is preserved, that they had wooden hafts.

(One can suppose placing the axe at a certain angle, with its cutting edge up, as is the case for every axe carving at Stonehenge, had some significance or meaning. But it might not have: in this and any text using the western alphabet, each letter has a correct way up. For the letters «b» and «p», it is critically important because «b» becomes «p» and «p» becomes «b» if so inverted. The history of the western alphabet is well understood: there is no evidence which way up a letter is carries any significance or symbolic meaning. Its being written always a certain way up simply is a convention. The same may be true of the axes: it was simply the way up they were drawn).

In a splendid remark from the era when Freudian psychology was the popular rage, and every cylindrical object could be taken to symbolize the phallus, it was said, "Sometimes a cigar is only a cigar."[2] There are photographs recording Sigmund Freud's own happy habit of smoking a cigar. Sometimes an image can be just an image.

Anati and Gomez have drawn attention to how very many axes are depicted at Stonehenge – 201 in their view, 115 according to the laser-scan researchers, who less often identify a weathered, faint and hard-to-discern mark as a figure – and have noticed a similar association of axes with cup-marks on a stone from Badbury Barrow, in Dorset, one of the other very few instances of axe carvings in Britain.

In their fine book on the Stonehenge carvings, especially section 8.2, Anati and Gomes imaginatively go beyond what strong evidence supports. They advance, for example, the notion that the axe was linked to the symbolism of the star. In my view, the stated grounds for so linking them are too tenuous: this is an attractive speculation about meaning, rather than a meaning that has been decoded, that is, one whose ancient form we can be sure we have recovered.

I do not share the authors confidence either that there is always a message or that it can always be decoded. Having accepted his request, I do diligently answer questions as best I can, seeking both a human understanding (above) and one which is based on evidence to link form to meaning. Vague generalizations or guesses – "Everywhere axes stand for *X* (say, the special high place of the woodsman in society) or for *Y* (say, masculine authority), so they must mean that at Stonehenge" "Copper or bronze axes are much the same colour as the yellow sun; they are shiny and reflect light; therefore their ancient meaning was related to the sun; and therefore related also to other shining heavenly bodies like stars " – will not do!

If there actually was no message, or the specifics of the message are not expressed in the evidence that survives for us to work with, then no optimism – "there is always a message, always capable of being decoded" – will enable us to know the message. We must accept there is much about ancient times which we yearn to know but do not know because the material evidence cannot tell us.

What kind of society produced the art: hunters, gatherers, agriculturists?

Agriculturalists with advanced skills in working bronze and gold.

When was it produced and by whom?

About 1750–1500 calBC (above), many centuries after the stones were erected on which they were carved.

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

Not known. There is no solid thread of evidence which goes from the physical evidence – markings on the

1 See Chippindale (in press) for a collected report with comparative remarks on the two studies taken together.

2 This remark is often attributed to Sigmund Freud himself, but there is no evidence he ever said or wrote it. In 1922, an elaborated account of why a cigar can symbolize the penis – so explicit that even today one reads it with embarrassment – had been published in the *International Journal of Psycho-Analysis,* a journal directed by Freud.

stones in shapes that closely match those of metal axes – to show any of these things. There are some indirect hints from e.g. the co-occurrence of cup-marks with axes; but not so clear one can say what was intended to be conveyed,

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

The same 'Not known'.

I do not enjoy ignorance. I would greatly prefer either hearing another or myself being able to advance solid and certain answers to each of these questions. But admitted ignorance is better than an answer given with false confidence.

Take just the last question, 'What did their makers expect to obtain as a result of producing it?' This, like the others, is an interesting question to which a reliable answer from the Bronze Age period in ancient England would be fascinating. But we need a method to do this. It needs to be shown with a good consistency across relevant contexts that some evident evidential aspect – of axes as physical objects, of carving images, of the shapes depicted, of the variation in their size and shape, of their being carved into stone, of their being on the uprights of a much older built structure, of ... – some aspect to what we can observe in the ancient traces is repeatedly associated with some clear intention or desire or ambition on the part of the makers. No such proof has been made or even – to my knowledge – robustly attempted!

Acknowledgements

I thank prof. Anati for this invitation and for stimulating discussions on these issues; Mário Varela Gomes for permission to print here fig. 2.

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Layered Messages through Time: A Case Study of Blue Bull Cave, Canyon de Chelly, AZ, United States

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The discussion takes us to Canyon de Chelly in the southwestern United States and one of its rock art sites locally known as Blue Bull Cave. Canyon de Chelly is a spectacular geological sandstone formation in northeastern Arizona (36 degrees 08'01.00"N, 109 degrees 28'10.00"W, fig. 1). It was successively occupied by Basketmaker, Pueblo and Navajo peoples and is now a heritage site of the Navajo, most of them living in the nearby town of Chinle. All three groups have graced the canyon walls with petroglyphs and pictographs. Blue Bull Cave is one rock shelter site displaying wall foundations and pictographs, now located on the property of Mrs Teller. In 1931, Canyon de Chelly National Monument was created, which is administered jointly by the National Park Service of the US Department of the Interior and the Navajo Tribal Council in Window Rock, AZ.

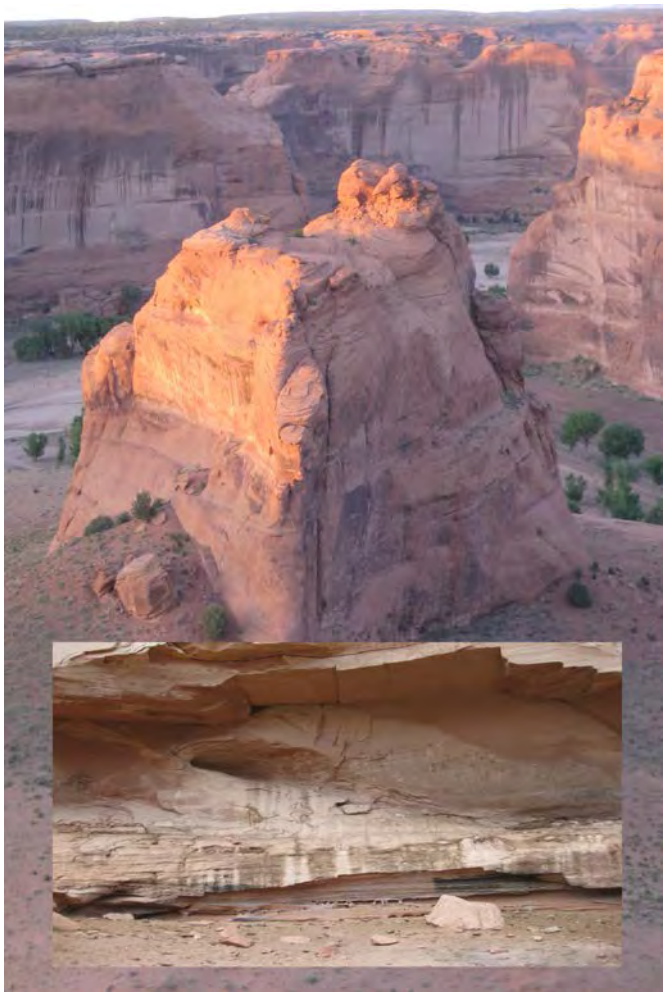

Fig. 1. Canyon de Chelly natural landscape and Blue Bull Cave in inset. (Photograph by Brian Garrett).

When?

At Blue Bull Cave, Basketmaker, Pueblo and Navajo pictographs can be differentiated. I am following here the rock art classifications proposed by Campbell Grant (1978, pp. 153–236), whose surveys of the canyon remain the most comprehensive and authoritative scholarly work of rock art in Canyon de Chelly. Grant's (1978, pp. 161–4) approaches to dating are first to associate rock art with cultural material at the same site which can be solidly dated; and second, in the absence of cultural material, to date rock art by stylistic comparisons with other areas where similar images exist in connection with a known and dated culture period.

At Blue Bull Cave, Basketmaker people painted large polychrome human figures in a frontal position with hands down during the first centuries AD up to about AD 450. These images appear in the left section of the cave, partially overlaid by later pictographs (fig. 2). The Basketmakers lived in the rock overhangs where they erected first simple brush shelters and later pit houses. They were semi-nomadic and their economy was based on hunting, foraging and rudimentary agriculture. The great majority of the rock art in Blue Bull Cave was created in the Modified Basketmaker/ Developmental Pueblo phase from c. AD 450–1100. These paintings show smaller and simplified anthropomorphic figures but exhibit great enthusiasm for the portrayal of wildlife, especially birds. Certain bird species can be identified, including the newly domesticated turkey (fig. 3). Ancestral Pueblo people continued to occupy the rock overhangs but abandoned pit house construction in favour of surface unit-type dwellings. The semi-subterranean pit house of the Basketmakers changed into the rounded ceremonial kiva of the Pueblo. Agricultural techniques were improved and cotton was now cultivated, beginning a weaving tradition. Ancestral Pueblo lifestyle carried

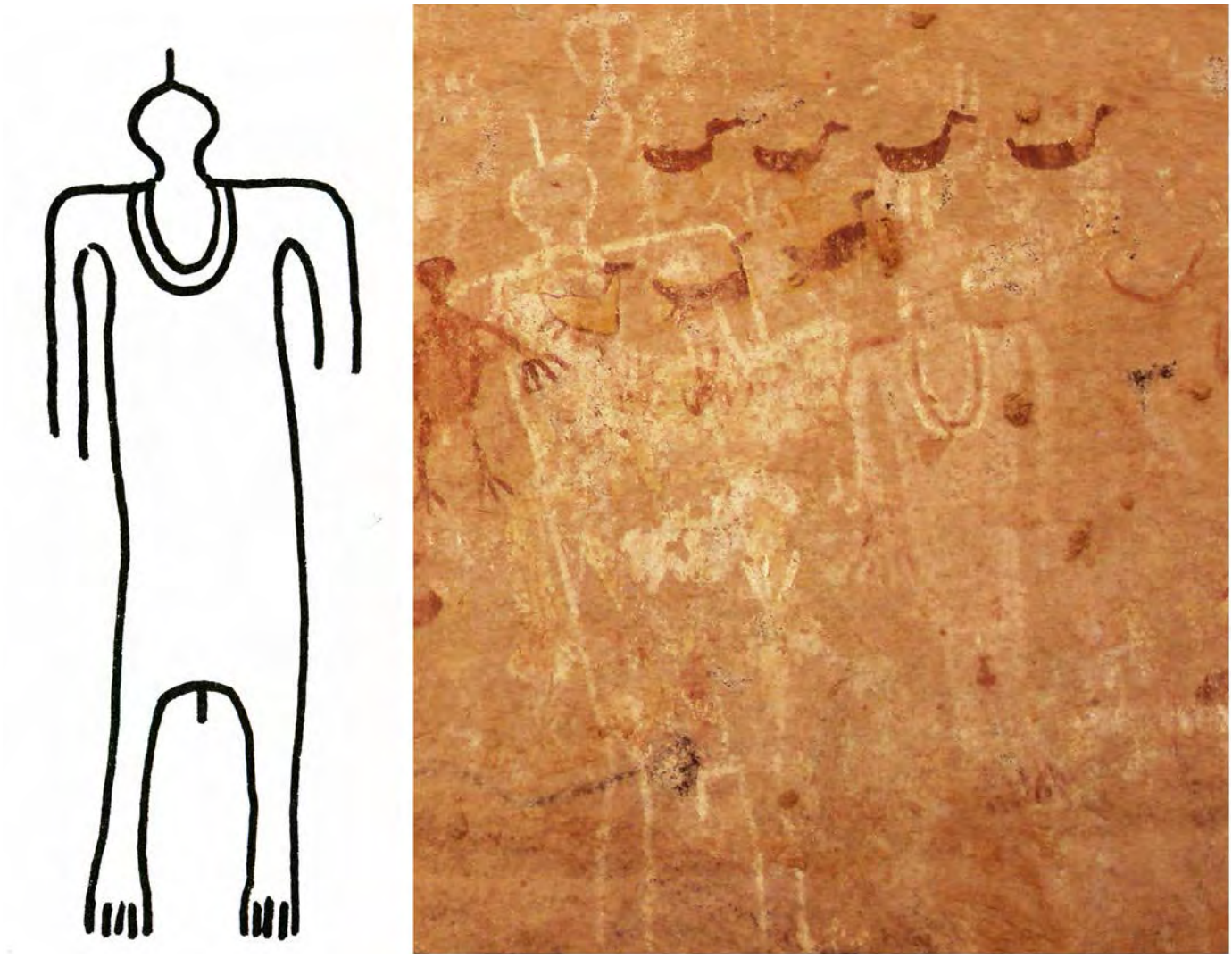

Fig. 2. Blue Bull Cave, large frontal Basketmaker anthropomorph. (Photograph by Brian Garrett with drawing copied from Grant, 1978).

over into the Great Pueblo Period (c. AD 1100–1300). Changes can be observed in the larger, multi-storied pueblos resembling fortresses erected in many Canyon de Chelly rock shelters. A significant stylistic change occurred in rock art which can also be registered in Blue Bull Cave: most Great Pueblo pictographs are white or buff situated in the higher sections of rock walls. Human figures are smaller, undecorated and more stylized than their Basketmaker counterparts but are shown in livelier, more animated positions and activities (fig. 4). The ancestral Pueblo people left after AD 1300 and the canyon with its water spots served as a thoroughfare for passing groups for the following 400 years.

The Navajo came to Canyon de Chelly in the late 1770s from their first home base in the southwest in northwestern New Mexico. The Navajo speak an Athapaskan language and are unrelated to the Pueblos. They migrated south from the northwestern part of the American continent and began to settle and mix with the Pueblo and learn Pueblo life ways sometime after AD 1300. In Canyon de Chelly, the Navajo have occupied and cultivated the bottom lands. They sought refuge in the abandoned Pueblo houses in the rock overhangs in times of military threats. They have further added realistic paintings of people and animals that were part of their daily lives on many shelter and open cliff walls. Selected sites exhibit supernatural ye'i figures and star panels. Blue Bull Cave features all three categories of subject matter (fig. 4). The horses and riders were executed in paint and charcoal. Grant (1978, p. 261) dates them to the mid-19th century.

Why?

The large Basketmaker anthropomorphs seem to reflect a discourse with authority figures. The visual

Fig. 3. Blue Bull Cave, pictographs of birds, Developmental Pueblo. (Photograph by Brian Garrett with drawing copied from Grant, 1978).

information is too sketchy to provide a solid context for how worldly or divine such personae were. Likely we are looking at products of shamanism. Shamans gained social recognition in small population groups through their abilities to connect with the supernatural world and intercede for the common good. Social status led to material as well as immaterial wealth and power. The tall human-like figures are the shamans themselves or the spirit-beings they encountered or a merging of the two with the shamans turned supernaturals. This interpretation is supported by Basketmaker elite burials and by similar pictographs of elongated polychrome anthropomorphs at numerous other Basketmaker sites in the southwest, for example, the lower Pecos region of Texas (Kirkland, Newcomb, 1967; Christie/Shults, 1986); the Cochimi of Baja California (Grant, 1974); and the Fremont culture of eastern Utah (Schaafsma, 1971).

Ancestral Pueblo pictographs appear to have been more secular investigations of the physical world, reflected in the smaller human figures portrayed in active profile positions and in the canyon animals. Grant (1978, pp. 69, 185) has argued that ceremonial interest may now have been concentrated in the kivas. At Blue Bull Cave and other sites, the Navajo painted over existing Basketmaker and Pueblo designs. This is likely to mark their current presence at the older sites. Many Navajo maintain ambivalent relations with the Basketmaker/Pueblo rock shelters. They have used the ancient ruins for protection and storage purposes. On the other hand, many Navajo project fears of potent and potentially evil spirits on to the rock paintings; for example, Brandon Teller identified the black figure next to the ye'i as well as the Basketmaker and Pueblo anthropomorphs in Blue Bull Cave as skin walkers who have powers to manipulate good and evil spirits (personal communication, 2013). The star panel occupies its own space on the shelter wall above all

Fig. 4. Top) Blue Bull Cave, Navajo star panel. (Photograph by Brian Garrett). Bottom) Blue Bull Cave, ye'i figure and skin walker, Navajo. (Photograph by Brian Garrett).

earlier pictographs. Scholars have attempted to read specific constellations into some star panels (Grant, 1978, pp. 218–19, 228–31). Among the Navajo, star lore has been specialized knowledge only shared among traditional ceremonial singers. Rock art sites with star panels have been treated as private sacred spaces (Britt 1975; Haile, 1947). In 2013, 19-year old Brandon Teller did not talk about the stars painted in Blue Bull Cave as anything special.

To whom?

The audience and primary viewers of the Basketmaker and Pueblo rock art were clearly the people residing in Blue Bull Cave. The cultural landscape of the Basketmakers was local and sparsely populated. De Harport (1950 in Grant, 1978, p. 37) gives a population estimate of 200 for the whole canyon area, including Canyon de Chelly and Canyon del Muerto. People were struggling to grasp and order the natural and social worlds around them and personified such desired order in the pictographs of the large and motionless anthropomorphs.

The Pueblo people had certainly achieved more control over their natural setting and populations in both canyons taken together rose to about 1,000 (De Harport, 1950). Their rock art evidences great interest in exploring this natural world, while spiritual questions appear to have been addressed in kiva rituals.

The Navajo did not reoccupy the Basketmaker-Pueblo rock shelters and only used them sporadically for practical purposes. They addressed rock art to essentially anyone who passed by and saw the images. At Blue Bull Cave, the ye'i and skin walker figures clearly state Navajo presence over the prior Basketmaker and Pueblo painted anthropomorphs and they may indeed have been directed towards these ancient peoples as the audience whom many Navajo claim as ancestors. The charcoal drawings of horses and riders are more informal executions and may have been added by herders or nearby residents in a leisure activity for their own enjoyment. The star panel certainly marked sacred space to traditional Navajo viewers; the younger generation in the 21st century acts as if they no longer know about such associations.

To conclude, today's Navajo cultural landscape of Blue Bull Cave and the two canyons includes the ancient Basketmaker and Pueblo ruins and rock art with whom they entertain an ongoing layered and practical discourse. They are actively shaping Canyon de Chelly into a cultural heritage site by increasing tourist services and reaching out to the global world via the internet. In this process, renewed attention is given to the rock art as it is marketed in promotional media, reinterpreted by the Navajo in personal encounters with outsiders, and added on as individual Navajo-make rock art of the 21st century.

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Semiotics in the Rock of the Signs (Barcelos, Portugal)

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The Rock of the Signs (in Portuguese Laje dos Sinais) is a carved granitic outcrop 7 m long and 5 m wide, flat to the ground, halfway up the hillside of the mountain known as Monte da Saia, in the parish of Carvalhas, in the municipality of Barcelos, north Portugal. It was first mentioned in 1881, in the notebooks of the archaeologist Francisco Martins Sarmento, who describes the engravings in another publication in 1895, and the first drawings of the carved figures appeared only in 1951, executed by Mário Cardozo (Coimbra, 2001). However, he did not see some engravings on the eastern part of the rock, probably because they were covered by soil, besides making some mistakes in the drawings, for example, representing as a spiral what in reality are concentric circles and not representing some figures on Panel 2 (Coimbra, 2004).

In order to make the description easier, we decided to divide the engravings into four panels, as follows.

Panel 1 (fig.1) is the more intensively carved area, with the following figures: a curved arm swastika inside a circle, three cup-marks, a 'hook' inserted into a sort of oval, 'crescents', concentric circles with concentric UU, half circles, simple circles and concentric circles, with or without an inner cup-mark.

Panel 2 is smaller than Panel 1, located at the south of it, after a big rock fracture. The engravings consist of half circles, concentric circles and concentric circles with four concentric UU (fig. 2), not detected by Cardozo.

Panel 3 engravings are much eroded, having been detected by the author and G. Brunod during fieldwork in 1996, and had not been observed before. The main

Fig. 1. Engravings from Panel 1.

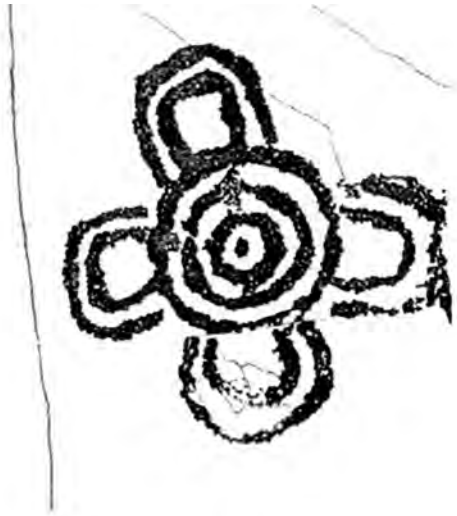

Fig. 2. Concentric circles with concentric UU.

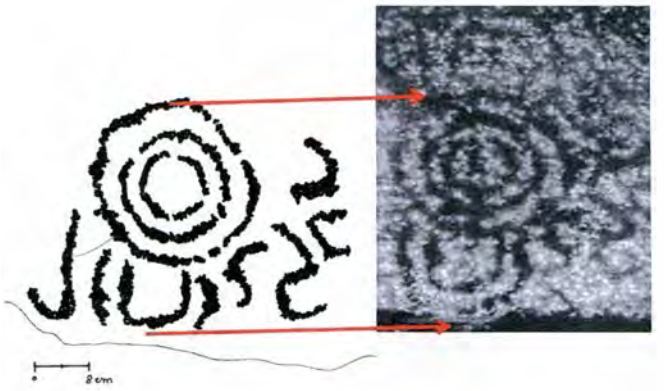

Fig. 3. Panel 3: Tracing (left) and frottage (detail) enhanced through software.

figure is constituted of three concentric circles with two concentric UU and is better seen in an enhanced image with computer software (fig. 3), because the bad level of conservation makes observation in situ and the consequent tracing process difficult.

Panel 4 is a spiral and a group formed by the following figures: a big cup-mark with a circle around it, two concentric UU and three grooves that depart from the circle to its exterior (fig. 4). These engravings were also only discovered in 1996.

When?

Chronologically, the rock art from the NW of the Iberian Peninsula, where the Rock of the Signs is located, is the product of communities that settled in that region during the transition from the third millennium to the second millennium BC (Peña *et al.*, 1996), corresponding to agricultural and cattle-raising people who knew about metallurgy and burial

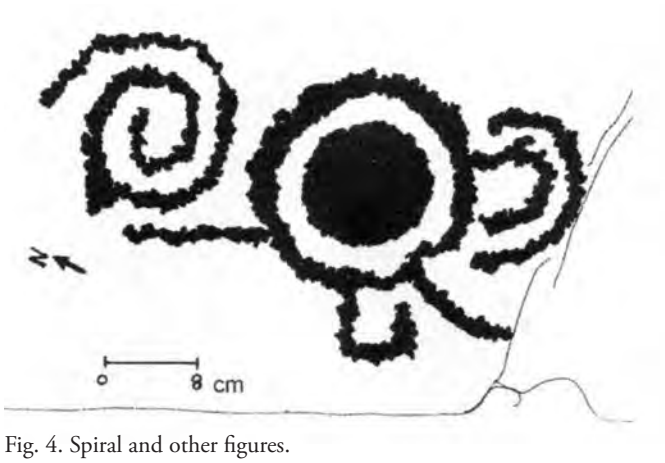

Fig. 4. Spiral and other figures.

in megaliths (Beltran, 1998).

Some of the engravings from Rock of the Signs, such as the concentric circles with concentric UU, are present in Irish megalithic art, like for example on a standing stone near Newgrange and in Cairn L from Loughcrew (Coimbra, 2004, figs. 3–4). However, in the Portuguese case there are four groups of concentric UU, while at Newgrange there are only two and at Loughcrew only one, but the examples from the Rock of the Signs seem to constitute a survival of megalithic art style in open-air rock art. This idea of an artistic tradition in petroglyphs that has its origin in megalithic art is shared by several Galician rock art researchers such as F. Costas Goberna, J. Hidalgo Cuñarro, P. Novoa Álvarez and A. Peña Santos, regarding rock art sites such as Coto de Barcelos, in Oia, Pontevedra (Costas and Pereira, 1996–97).

Why?

Observing Panel 1 it is possible to notice that the biggest figures are intentionally organized into a circle, leaving an empty space in its interior (fig. 1), seeming to correspond to a certain kind of grammar. This fact leads us to think about a semiotic purpose, the intention of transmitting a message or information.

Regarding the rock art from the NW of the Iberian Peninsula, A. Peña Santos and M. Rey Garcia (1993) called attention to the difference of language between the engravings made on vertical rocks, with the purpose of being seen from a certain distance (weapons, horse-riders, hunting scenes), and others made on horizontal surfaces, visible only in the place (circles, spirals, labyrinths, swastikas). This second group would be more private and connected with

symbolic and sacred rituals, constituting a reflection of a spiritual world, where certain individuals surely must have had an important role as interpreters of the messages carved on to the rocks and also transmitting them to posterity. This is the case of the Rock of the Signs, which is flat to the ground, only visible in the place and has the second kind of symbolic figures mentioned by these authors.

Following a semiotic and symbolic approach, P. Bouissac and M. Khan (1995) argued that heuristic assumptions can be carried out according to the status of a certain set of rock art, whether it is an iconographic reference (the visual record of an event) or a symbolic one, in the sense that identifiable objects and animals represent concepts, categories or values.

This way, the presence of a conventional astronomical sign such as the swastika on the Rock of the Signs could be also related to a mnemonic process – the need of memorization of a certain event – which can result in the creation of myths.

To whom?

Surely rock art was not produced to decorate the outcrops. Several authors consider that it seems to have been the support of complex combinations of sacred and profane values (Bradley *et al.*, 1994). Indeed, if some engravings seem to function as landmarks, many others have an undeniable symbolism. Therefore is coherent to think about rituals and cults in connection with many rock art sites such as the Rock of the Signs, which were probably considered as sacred, being places where the forces of nature (or gods) would manifest themselves.

According to L. Benito and R. Grande (1995), carved rocks would thus have a sacred quality, implying that the gods would return to manifest themselves in those sacred places, whenever man invoked them through rites of propitiation. According to F. Costas Goberna and E. Pereira Garcia (1996–97), some of the engravings were precisely done not to be seen by humans but instead by the 'spirits' or the 'forces' that would fulfil the expectations of the community.

Rocks have an almost eternal life, which gives them the character of immutability. They were present throughout the lives of prehistoric man, from childhood till old age and would so to speak survive men's deaths. Probably it was this eternal character of the rocks that was the reason men chose this material for carving figures with a symbolic meaning, as well as to receive the presence and the favour of the gods.

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Danish viking marks on stone?

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Non-literate marks on stone blocks in the form of images and symbols from the Stone Age, Bronze Age and Iron Age are known from many sites in Denmark. From the late Iron Age and Viking Age we know about texts carved on stone blocks, so called rune stones.
On two small islands, Illumoe and Vigoe in the Bay of Helnaes southwest of Funen, there are fragments of a 4-km system of upright monoliths. The construction consists of hundreds of stones. Some stand in distinct rows, others have fallen down from the stand. 68 monoliths with 163 non-literate marks have been observed.

Fig. 1. Denmark map.

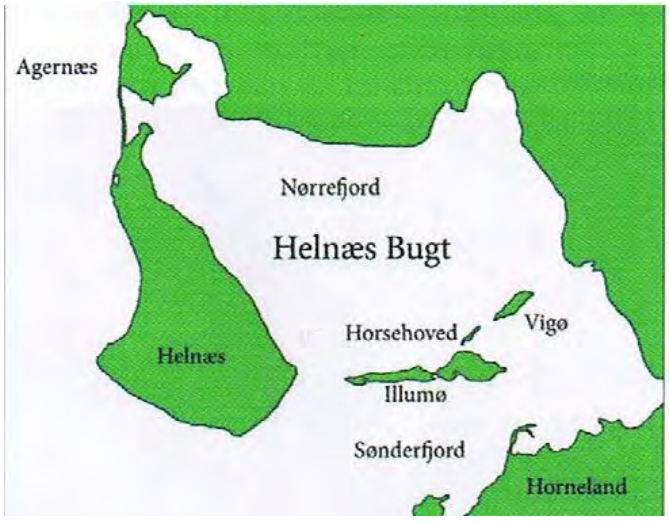

Fig. 2. Helnæs map.

Fig. 3. Stone series.

The small marks on the stones on Illumoe and Vigoe are circular and beaker-shaped with an average diameter of 37 mm and a depth of 40 percent of the diameter. The marks are different from the common Bronze Age/Early Iron Age cupmarks from southwestern Funen. They have an average diameter of 44 mm and a depth of only 16 percent of the diameter.
The marks are called beakermarks to express their characteristics.
Experiments to make copies of the beakermarks with different types of tools found that it was only possible to create them with tools of iron.
It is not possible to date the monoliths or the stone rows precisely, but the evidence from the experiments show that they must be from the Iron Age or later, i.e. from 500 BC onwards.
Geological research shows that the islands in the Bay of Helnaes were a joined landscape for a period in the past. There is also evidence that suggests that the islands were connected by land to Helnaes.
The name of the peninsula Helnaes means 'the holy peninsula'. It makes good sense to recognize Helnaes in the past as an overall landscape that included the small islands. Texts on a rune stone from Helnaes mention Roulv, priest of the peninsula. The rune stone is dated to the Late Germanic Iron Age (c. 700 AD). In the late Iron Age and early Viking Age the Scandinavian society of peasants and warriors was united in a religious community by the ancient Asa religion.

Fig. 4. Stone range west.

It is tempting to see the monoliths with beakermarks in connection with the text on the Helnaes rune stone. When looking for an answer to the question why the beakermarks were chipped in the monoliths, we must make this qualified guess. In the past the monoliths along the shores of the two small islands were a clear indication that the area was something special.

It seems reasonable to assume that the monoliths were a fence around a holy place where Roulv carried out sacred rituals.

Chipping experiments have shown that the Bronze Age cupmarks were very time-consuming to produce with tools of hard stones. Efforts to produce a cupmark were perhaps a sacred act with a specific purpose.

Creating a beakermark with tools of iron took only a short time. It is not the work, but the mark itself that is important. Runic writing came to be used in Scandinavia already in the first centuries AD. Early runic inscriptions are often associated with precious art objects or texts on stones set by kings, warriors, priests and chiefs. The three known rune stones from the southwest of Funen with Roulv's name are not written by him, but signed by the rune writer Aurir. The ability to read and write runes was perhaps reserved for the upper class, while commoners were rune-illiterate. Viewed in this context, Iron Age beakermarks are non-literate messages to the contemporary population.

Fig. 5. Cupmark.

Beakermarks on monoliths at Helnaes are a clarification of the message of the monoliths, which at least tells the visitor that he is entering a special area with different rules of behaviour.

It is possible that each beakermark shows that a holy act is performed by and on the stone. All the constructions' beakermarks show a high degree of uniformity. There are no special marks which could be interpreted for special deities, such as Tor, Odin and Freya.

Uniformity can be interpreted as a request to 'Regin', an Old Norse word meaning 'powers'. It is a holistic concept that includes the personified forces of nature, the ancestors and the divine.

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Paintings from northeast Portugal: beyond script and art

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Introduction

In this paper we aim to present a summarized and simplified understanding of a specific rock art tradition present throughout Iberian recent prehistory, focusing on schematic art. We will look at a specific geographical area, the Trás-os-Montes region, located in the very northeast of Portugal. This region is mainly formed of plateaux. There are mountains, sometimes of high altitude, and rivers that cut the surface forming deep valleys break this geomorphological regularity.

In the last decades, due to new investigations, Trás-os-Montes has been the scene of amazing rock art findings. From Palaeolithic and Iron Age portable art to remarkable historical engravings, it seems that recent prehistoric art is the most difficult to characterize. With this in mind, we conducted a study focusing only on schematic paintings. The careful collection of data from 26 rock art sites and the construction of a set of variables to organize and classify the data allowed a comprehensive statistic study. Altogether, 26 sites, 77 panels and 500 motifs were analysed. As a result of our investigations, we were able to differentiate two distinct groups within the schematic painting (Figueiredo, 2013).

When was schematic painting produced and by whom?

In general terms, schematic painting from the northeast at Trás-os-Montes was produced between the early Neolithic and the late Chalcolithic (6000–2000 BC). However, in this long-term graphic trend, the themes changed, as well as their combination and the places they occupied in the landscape.

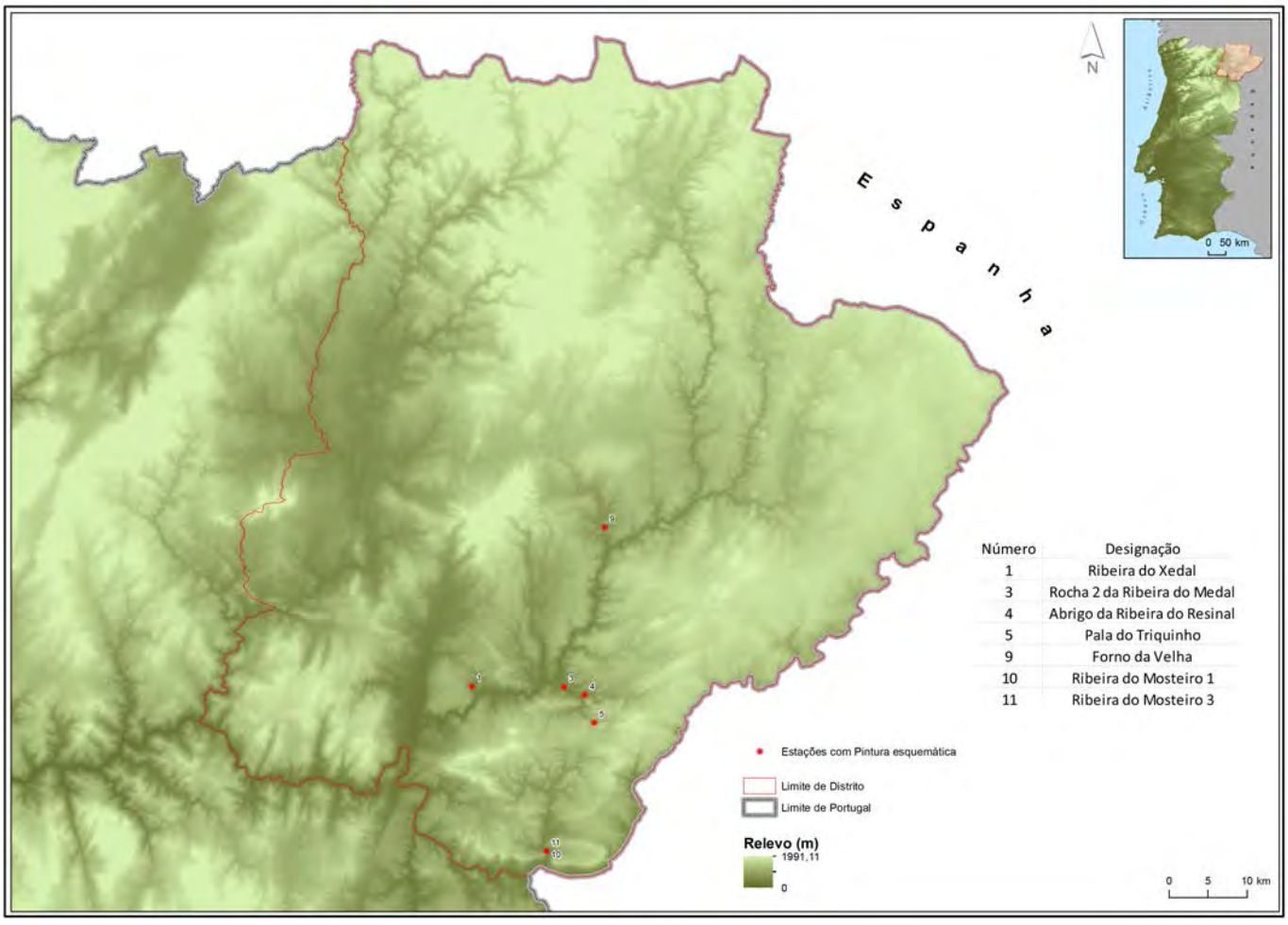


Fig. 1. Neolithic distribution of schematic paintings in Eastern Trás-os-Montes.

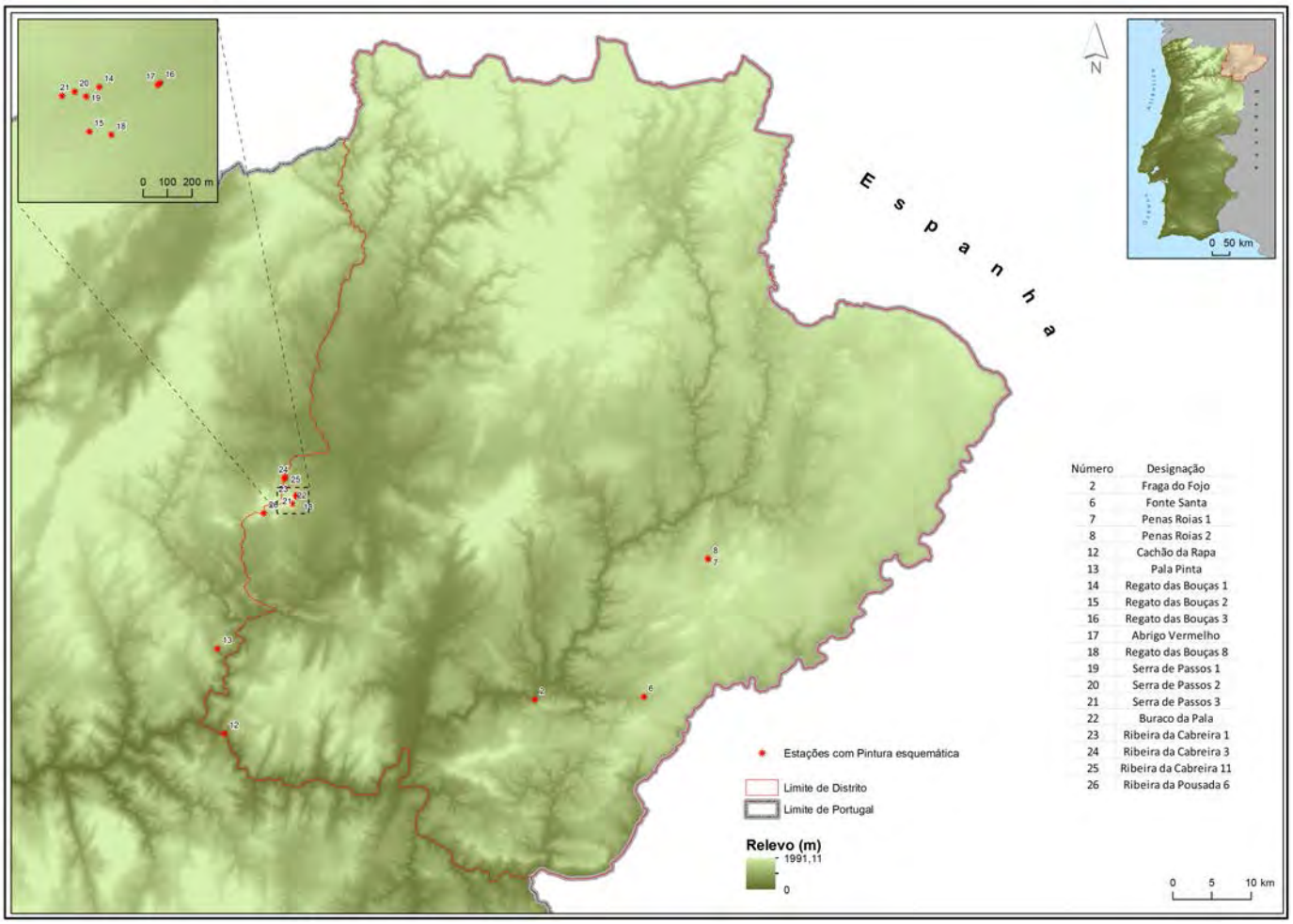
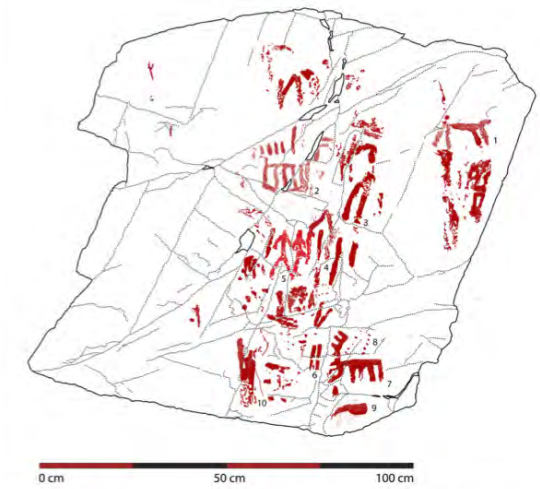


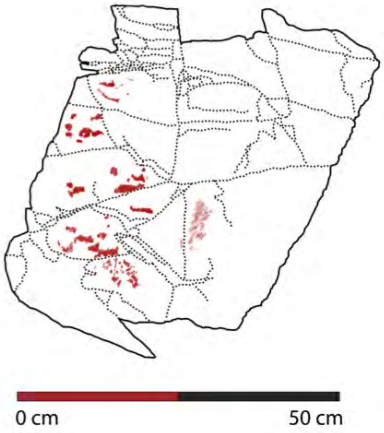
Fig. 2. Chalcolithic distribution of schematic paintings in Eastern Trás-os-Montes. From site 14 – Regato da Bouças 1 to site 26 Ribeira da Pousada 6, in the area of Serra de Passos.

During the Neolithic (6000–3000 BC), the motifs represented were human figures depicted in simple ways, sometimes associated with animals such as deer, and abstract and geometric signs. The most common non-figurative themes were bars, grids and ramiforms. The rocks selected to be painted were shelters or schist outcrops with big dimensions. But in spite of the size of the outcrops, the number of motifs was mostly low. In the Trás-os-Montes region, most of the rock art sites from this period are located in small valleys, near the rivers, and sometimes on the hillsides. Although they are not always visible in the landscape, they are usually easy to reach. Analysing their archaeological context, we observe that they overlap territories where we also find Palaeolithic art, as well as Epipaleolithic-Mesolithic art. When related to other evidence from the Neolithic, such as settlements or megalithic monuments, they appear to be quite isolated.

We believe that highly mobile communities created this art. Although there is early evidence in the region for both pastoralism and agriculture, they did not replace hunting and gathering. Instead, archaeological remains demonstrate that they complemented the existing subsistence practices.

In the Chalcolithic period, schematic painting changed. Zoomorphic figures tend to disappear, and when they occur, they are highly stylized. Human figures start to appear, represented in complex and detailed ways, with head-dresses for instance. Also the abstract and geometric figures expand, assuming sometimes extremely complex configurations. It is among this last group that we find numerous overlaps, which shows a constant reuse of the operating space of the painted panel. The outcrops painted in the Chalcolithic are smaller than the ones chosen in the Neolithic. But, in an inverse proportionality, the number of painted motifs increases. The location also changes, as in this period we find the rock art sites are





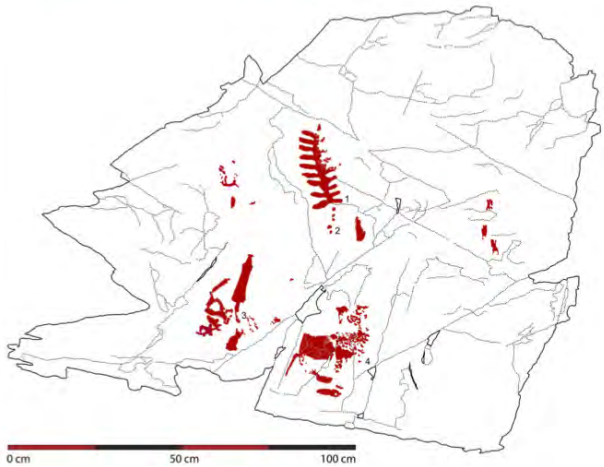


Fig. 3. Neolithic paintings representing a ramiform, human figures, deer, geometric and abstract motifs in Forno da Velha (Macedo de Cavaleiros), according to Figueiredo and Baptista, 2010.

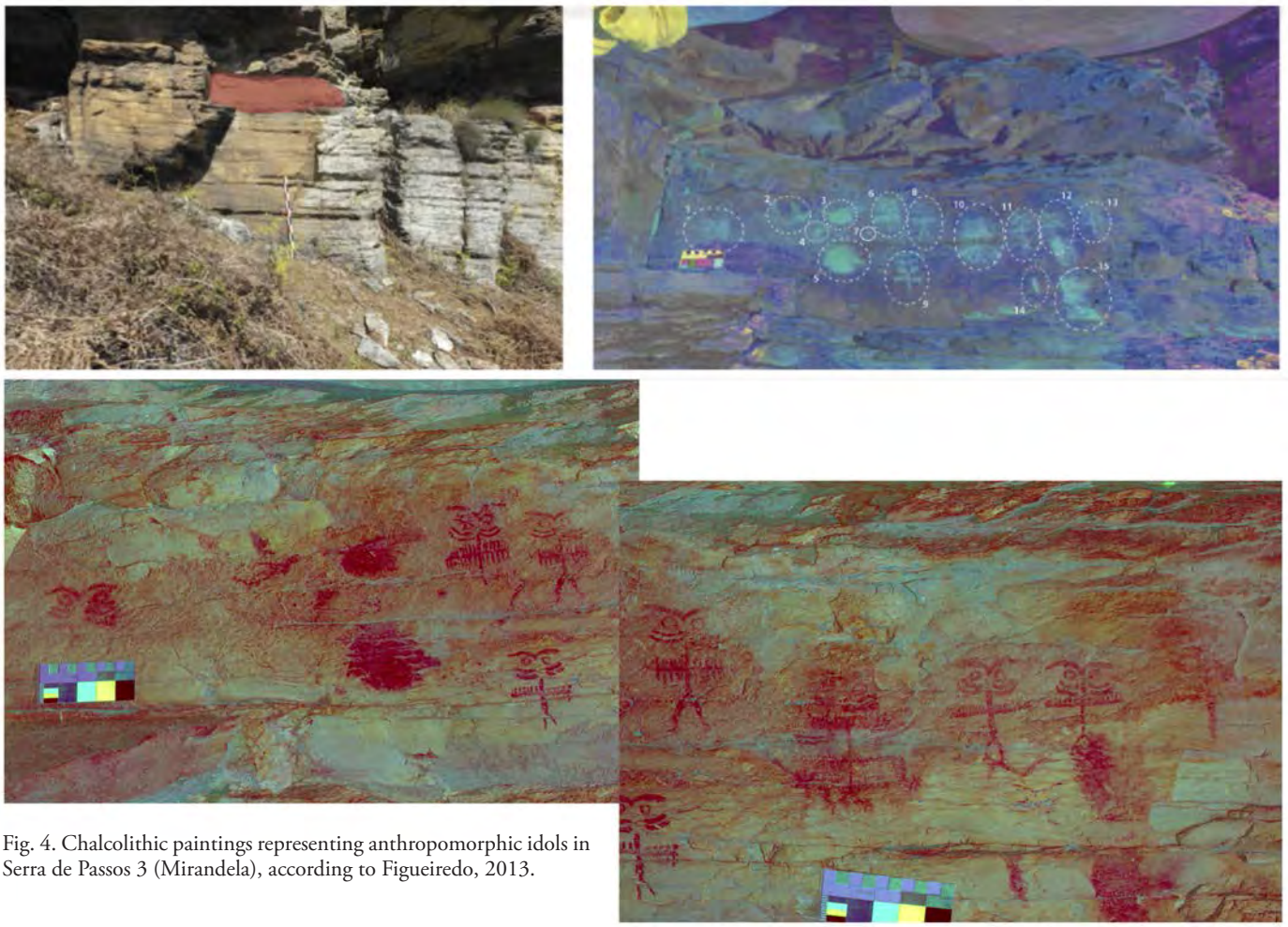


Fig. 4. Chalcolithic paintings representing anthropomorphic idols in Serra de Passos 3 (Mirandela), according to Figueiredo, 2013.

mostly on mountain or hilltops. In some cases, the view from these places to the surrounding landscape is astounding, although it is not easy to reach them. When analysing the archaeological context of these sites, we observed that the rock art is mainly found in the surroundings of or even inside Chalcolithic settlements. The sites form large or small networks that allow rock shelters or open-air painted rocks to establish intervisibility.

While in the Neolithic the process of farming was slowly initiated, in the Chalcolithic, the new subsistence economy was consolidated. The populations responsible for the rock art were more stable and seemed to be domesticating extensions of their territory.

Why was schematic painting produced?

In the Neolithic we find strong relations between schematic paintings and the valleys, rivers and megalithic tombs. The valleys have always operated as passageways in highland regions such as Trás-os-Montes. In societies with high mobility, having signs along the way to indicate for instance where supplies could be found was opportune. On the other hand, some of the richest panels from this period are located near crossings of streams, which could also indicate places where people used to meet, that is, places that could function as spaces for social cohesion. Another aspect to take into consideration is megalithic art, inscribed in the same tradition of schematic painting that had not only to do with the universe of death, but also with social cohesion. It is interesting to notice that in this period the relationship between schematic painting and temporary community settlements is unusual. In our opinion, the simplicity of the painted signs and their distribution in the landscape suggest that in this period schematic art was produced as a communication system that would serve different small communities to move in the region, as well as to mark the points where meetings could occur.

In the Chalcolithic, schematic paintings arise in the landscape and are mainly concentrated along habitat places sometimes enclosed by walls or pits. As human societies began to settle down and invest in a territory – through cultivation, cattle herding and building structures – rock art seems to play the role of the medium that separates or creates the dialogue between the wild or untamed world and the human space. This is even visible in the rock art sites, where the human figures are clearly separated from the geometric or the abstract motifs through the different panels. Because the human figures grow in number and in some cases become very complex, we also believe they could be the representation of figures that had the status to negotiate with the wild and protect the human. But also in the Chalcolithic period we can connect some of the paintings with the world of death. The recent discovery of Chalcolithic idols in Serra de Passos, painted in rock walls outside empty shelters, led us to the idea that given the connection of these figures to the mortuary world, these shelters could have been used as places to deposit or bury the dead. In its connection to the living and to death, in this period schematic paintings seem to have been produced to establish limits between different worlds or contexts, that is, to create boundaries.

For whom was schematic painting produced?

In the Neolithic, due to the implantation of the sites (usually very easy to reach) and the simplicity of the forms, it is possible that the art was made mostly to conduct people along pathways or to evoke stories of ancestors. The recurrent nature of scenes where deer are represented can be related to symbols of continuous cyclic renewal (due to their periodically renewed antlers) that would be of major importance to people moving through vast areas establishing seasonal habitats. In this sense, and following very simplified ideas, we can argue that schematic painting was mainly made for humans in the Neolithic, although in some cases it could also have had strong bonds to ancestors. The execution of some of the rock art in high cliffs of the Chalcolithic communities, almost impossible to reach, although close to the settlement, opens new paths of interpretation. In fact, although in this period the rock art sites seem to be closer to the communities and concentrated in networks, the access to the rocks or panels is much more difficult. Moreover, the complexity of some of the depicted motifs would make them more difficult to interpret. As the societies grew and dominated certain areas of the land, social stratification became more intense, transforming power and its legitimacy. In this scenario, the control of the gods and the access people had to them could be operated through rock art. The characteristics of some anthropomorphic figures turn them into more than humans, possibly gods or ancestors, probably created to establish dialogue with other universal forces above human beings, in order to look after distinct persons or a whole community.

Conclusions

The issues raised in this paper are those every rock art researcher should try to understand. However, they seem to be extremely difficult to grasp, due to the lack of a reliable method that can demonstrate the ideas. Too often, as in the case we have analysed, the interpretation of a single site only makes sense when placed on a larger scale which relates it to the archaeological context and the landscape.

For schematic paintings, when posing the questions who were they, what did they want to express and to whom, we should bear in mind that concepts such as art or script certainly did not exist among prehistoric societies. Therefore, any method used in its decoding should be outside art and writing.

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LRA (Levantine Rock Art)

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The Mediterranean side of the Iberian Peninsula guards one of the most exceptional visual samples of our prehistoric past: Levantine rock art (LRA). This artistic tradition provides a unique visual window into the past of these lands. It explicitly reproduces all sorts of narrative scenes where finely depicted humans (men, women and occasionally children) perform different activities in which various facets of the past, rarely visible in other archaeological remains, are illustrated. These include past human traits (facial features, hairstyles or beards), equipment (bows, arrows, quivers, boomerangs, bags and bundles), clothing (short and long trousers, skirts) or adornments (head-dresses, bracelets, belts, straps) (fig. 1), cultural practices, social behaviour, hunting tactics (locating, tracking animal trails, targeting, killing a targeted animal and even carrying the prey) and other forms of human impacts and relationships with wildlife and the environment of the surrounding landscapes. The wildlife depicted includes deer, wild goat, wild boar, bull, horse and more rarely bees, canids or even rabbits. LRA sites are generally palimpsests, and diachronic and regional variations in the method of depiction (scale, technique, subject matter and so forth) within

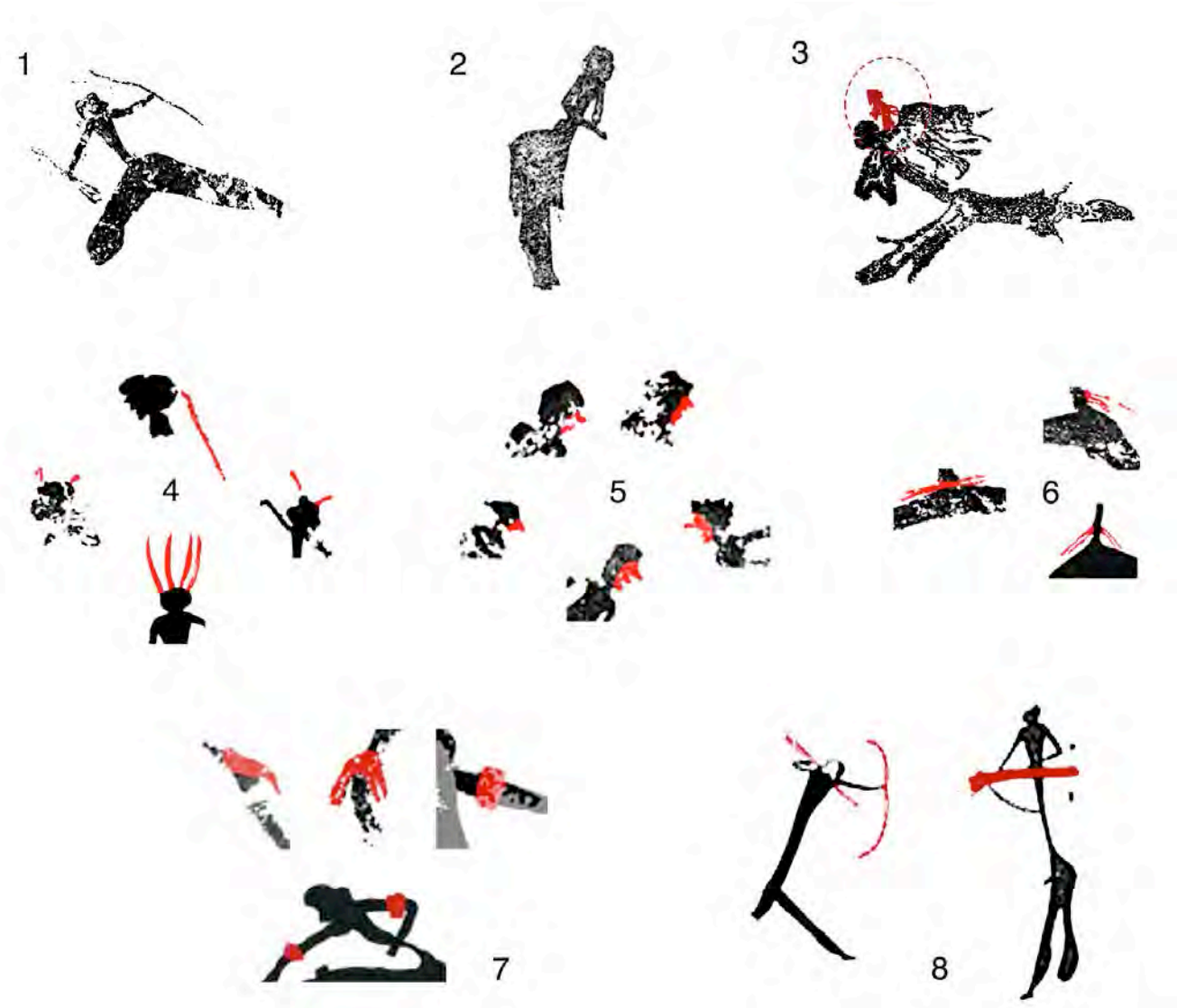

Fig. 1. LRA includes representations of humans: man (1), women (2) and children (3), their clothing and equipment: 4. Head-dresses. 5. Facial traits. 6. Belts and straps. 7. Bracelets. 8. Bow, arrows and quiver.

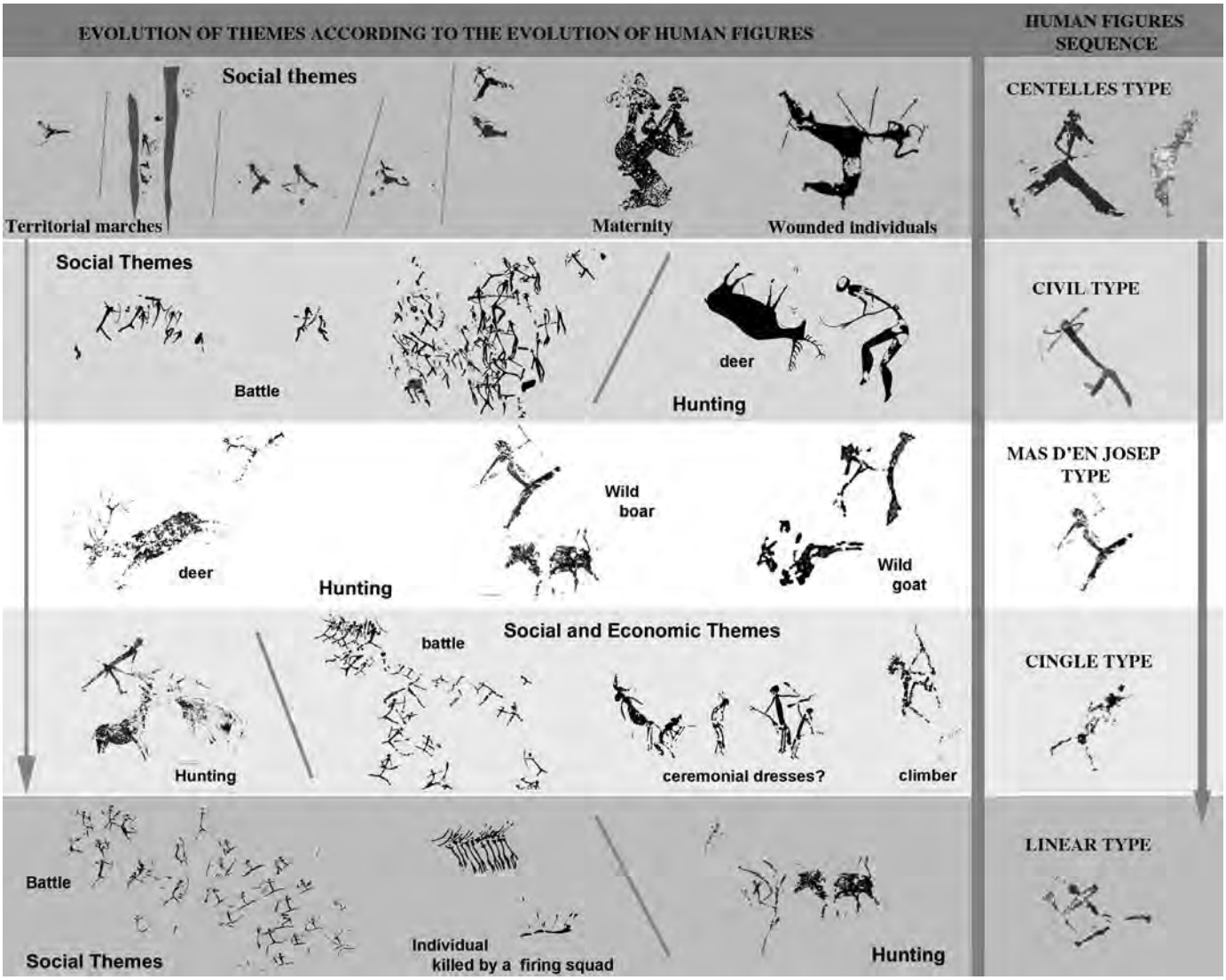

Fig. 2. Evolution of subject matters according to the stylistic sequence of human figures (Domingo, 2012b).

the Levantine corpus reveal regional specificities and different rhythms of temporal change in this tradition (Domingo, 2012a; 2012b) (fig. 2). Thus more than a uniform artistic practice, LRA should be seen as a network of artistic territories, where regional specificities coexist with other shared features, pointing to some common means of visual communication (Domingo, 2008a).

LRA is one of the three main post-Palaeolithic rock art traditions depicted in open-air rock shelters located in the major river basins of the eastern side of the Iberian Peninsula. The other two traditions are known as macroschematic and schematic art. These three traditions share landscapes, valleys and sometimes even rock shelters and panels. They also share chronology in a broad sense, since today they are all, wholly or partially, attributed to the Neolithic. But they differ in content, techniques and geographic distribution. While naturalism and fine brush strokes are specific to LRA, the other two traditions include very simplified depictions of humans and animals, as well as other geometric and abstract forms produced with thick strokes. LRA is exclusive to the eastern side of the Iberian Peninsula, while macroschematic is limited to Alicante province and schematic is dispersed throughout the Iberian Peninsula and even beyond (fig. 3).

There are 758 sites including any of these three post-Palaeolithic rock art traditions and located within the territory defined by LRA (from the Pyrenees to Almeria province), which were included in the UNESCO World Heritage list in 1998, which recognizes the

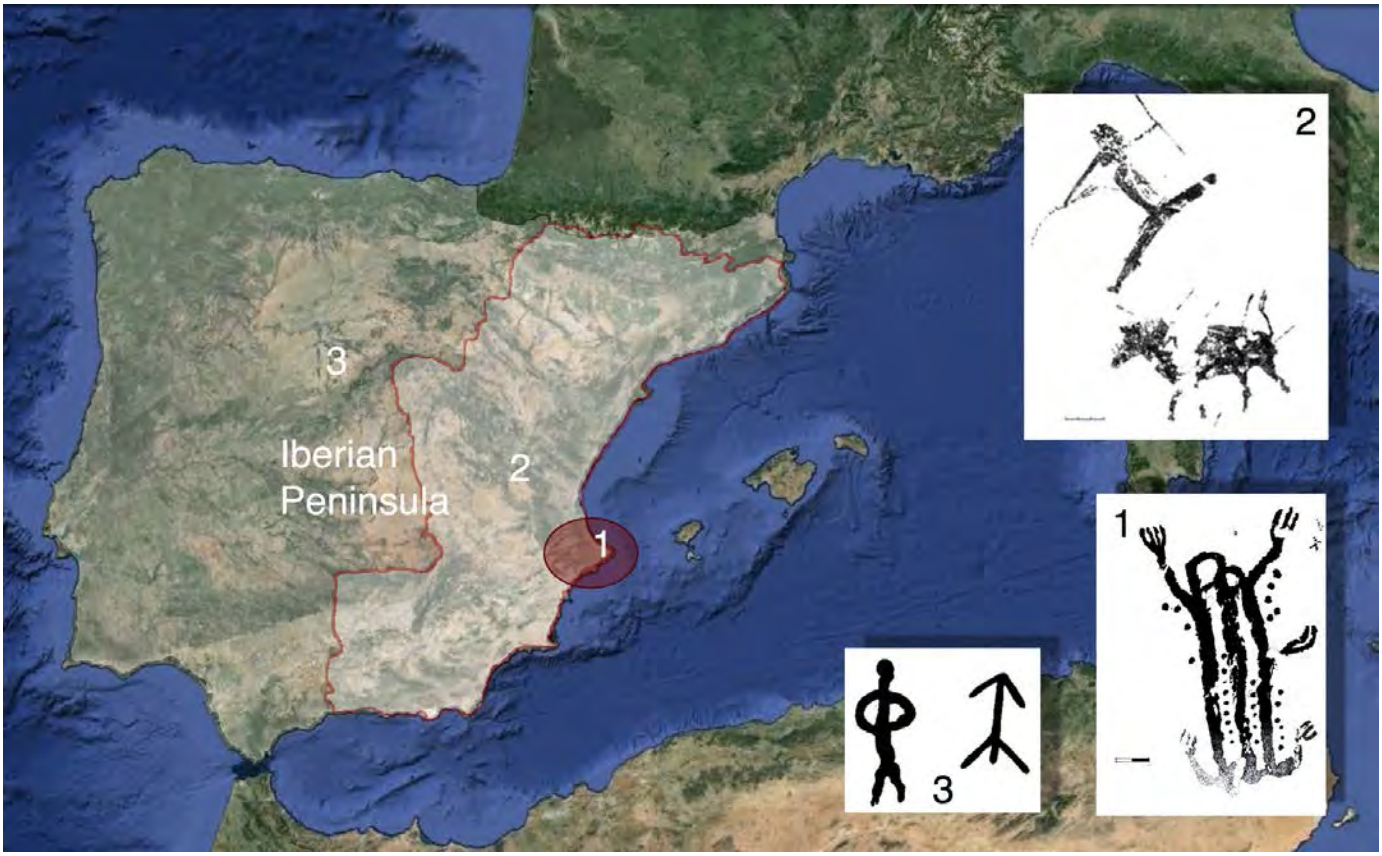

Fig. 3. Geographic distribution of macroschematic (1), Levantine (2) and schematic (3) rock art in the Iberian Peninsula.

universal historical, cultural and artistic value of these forms of prehistoric art and their surrounding landscapes.

When was LRA produced and by whom?

Questions of when and by whom have driven a century of continuous research on these rock art traditions. Unfortunately the scientific community has not reached yet a consensus on these questions due to the lack of absolute dates. Recent attempts to obtain chronometric dating through calcium oxalate AMS 14C dating have not solved the problem yet (Ruiz *et al.*, 2006; 2009), since this technique has been reported as unreliable because calcium oxalates are easily contaminated through the formation process. Thus, the results have to be carefully and critically considered (Domingo, 2008b; Hernández, 2009; Mas, Maura and Solís, 2012). Today we still rely on relative dating to answer these two questions.

LRA was originally dated to the Palaeolithic and interpreted as a regional variant of Cantabrian Palaeolithic rock art, with some specificities: the presence of humans and narrative scenes depicted in open-air sites (Breuil, 1910). However, soon after this hypothesis was dismissed and this tradition was progressively moved in time to more recent periods: the Epipalaeolithic, the Neolithic and even the Bronze age, based on the analysis of iconography, the archaeological contexts or the artistic sequence (for a good summary see Hernández, 2012 or Villaverde *et al.*, 2012).

Today it is almost agreed that LRA is linked in some way or other to the Neolithic, based on the superimposition of several Levantine motifs on macroschematic paintings at La Sarga rock shelter. However the lifestyles of the authors are still under debate. The discovery of stylistic parallelisms between macroschematic human motifs with raised arms and some similar humans impressed in cardial ware at the Cova de l'Or site date macroschematic art to the early Neolithic (Martí and Hernández, 1988) (between 6700 BP or 5600 cal BC and 5500 BP or 4358–4332 cal BC) (Hernández, 2012, p. 149). Thus the Levantine depictions located on top of the macroschematic humans have to be more recent. So what are the implications of this finding for dating

LRA? For some researchers LRA was produced by the last hunter-gatherers in Neolithic times. For them these superimpositions mean that at least some of the LRA phases were produced after macroschematic depictions, but some others could have been produced before (Martínez and Villaverde, 2002; Utrilla, Baldellou and Bea, 2012). In this theory both traditions could have been contemporaneous, but produced by artists with different economic and cultural backgrounds. While macroschematic art would have been the art of the early farmers, LRA would have been the art of the last hunter-gatherers, working before, during and after the Neolithisation process. But other researchers consider that LRA had no links at all with the last hunter-gatherers but was produced during the Neolithic by the new farmer communities (Martí, 2003; García, Molina and García, 2004; Hernández, 2012). The idea here would be that once these communities producing macroschematic art were fully installed in these new lands, social changes caused changes in their iconography, resulting in the emergence of LRA.

While the presence of hunting scenes was used in the past to support the Epipalaeolithic chronology, the truth is that hunting still played a significant role in the Neolithic diet (Hernández, 2012, p. 164). Furthermore, recent stylistic analysis of human depictions in LRA have shown certain thematic patterns within the Levantine sequence, with hunting scenes appearing only in the middle part of the sequence (Domingo, 2008a). Thus the iconography cannot be used as the main argument to support the chronology of this art.

Summarizing, while there is strong evidence to support the Neolithic chronology of LRA today, the lack of absolute dates and the analysis of the archaeological context in different regions provide arguments both in favour and against both theories: last hunter-gatherers versus early farmers authorship. Thus the question by whom is still far from being solved.

Fig. 4. Levantine scene showing human/animal interactions (Abrigo de Tortosilla, Ayora).

Why was LRA produced and to whom was it addressed?

As I have discussed elsewhere "prehistoric rock art is more than a sample of the aesthetic sensibility of past human groups. It is the graphic expression of past cultural systems of knowledge, composed of beliefs, thoughts, values and human perceptions of environmental and sociocultural contexts" (Domingo, 2012a, p. 306). In societies with non-textual records it is also a means of visual communication for sharing socio-cultural information (Conkey, 1978; Gamble, 1982; Smith, 1992) either to educate, regulate, mark, remind or celebrate.

While the message and meaning of LRA remains encoded in the panels, the temporal and cultural distance between the LRA artists and us precludes our interpretation of the art today, since we are unfamiliar with the culture, traditions and practices of the artists. Today we are able to recognize and describe the iconography depicted, since LRA is characterized by naturalistic motifs and narrative scenes (including hunting, battle scenes, dances, marches, representations of pregnancy, birth, maternity and death, etc). However, we are far from knowing if the motifs are literal representations of prehistoric realities and practices, or have some sort of symbolic meaning unreadable for an outsider. As an example, a wild board may well represent a prey, an ancestor, a desired strength or ability, a social identity and so forth. Similarly, a hunting scene (fig. 4) may reproduce a real episode of the daily life representing an economic activity of the authors or involve some sort of symbolism, as suggested by Martí (2003). In our opinion in such scenes it is more likely that "what really matters is not the narrative, but the symbolizing of the act of hunting, whatever its dimension or symbolism might be (appropriation, prestige or any other beyond our knowledge)" (Villaverde *et al.*, 2012, p. 93).

LRA is mainly located in the open air, and the analysis of the location, visibility and the number of motifs and styles contained in the sites has been used to deduce function. According to these features different researchers define various categories of sites, such as aggregation sites, geographical markers (to mark routes or specific traits in the landscape), observation posts and so forth (Fairén, 2002; 2004; Cruz, 2005; Bea, 2012). Thus, in these views rock art would have acted as a geographical marker that can be used today to deduce the potential uses of spaces and landscapes in prehistory.

Unfortunately, and broadly speaking, while the archaeological and geographic context of the art may provide us with information to deduce the potential function in the past, it is unlikely to inform us about the symbolic meanings. Similarly, deducing to whom LRA was addressed, whether a contemporary and/or future human audience, ancestors, spirits, gods and so forth cannot be solved from a visual analysis of the art in the present. While the degree of visibility is sometimes used to suggest the size of the audience, or to distinguish between public and private domains in the art (Bahn, 2010), our ethnoarchaeological experiences remind us that there are many ways to hide meaning in rock art beyond the degree of visibility of the panels (for example, by regulating the access to specific landscapes and sites, or by hiding the symbolic meaning of the motifs) (Domingo *et al.*, in press).

Thus to deduce the intended audience of LRA is beyond the scope of our archaeological analysis of this rock art tradition.

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The Wall Art of Teleilat Ghassul, Jordan: When, Where, Why, to Whom and by Whom?

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Abstract
The prehistoric paintings found on the walls of selected structures at Teleilat Ghassul in Jordan are stunning, mysterious and historically significant. While the subject matter of the individual scenes is undoubtedly intriguing it will not be the focus of the current paper. This discussion will concentrate on some of the bigger questions, such as, when these painting were created, why they were produced, where they were situated, who created them and who their audience was. This interrogative approach provides further insights into their significance within the socially enigmatic, symbolically rich culture that flourished beside the Dead Sea in the later years of the fifth millennium BCE.

The fragmentary and multi-layered wall paintings of Teleilat Ghassul came from a 20-ha site situated in the south Jordan Valley just above the Dead Sea, and were discovered by four different excavation teams. Of the seven most coherent wall paintings (Cameron, 1981), the first five were uncovered during the 1929–38 and 1959–60 seasons by teams from the Pontifical Biblical Institute (PBI) in Rome. They include the famous 'Star' painting; the 'Bird and Spook Masks' scene; the 'Notables'; the misnamed 'Tiger' fresco and the mysterious 'Geometric' tableau (Mallon *et al.*, 1934; North, 1961; Drabsch 2015, in press).
The second two missions (1967–77 and 1994–99) were largely sponsored by the University of Sydney, and the excavations revealed the 'Processional' scene and 'Zig-Zag' frescoes under J. Basil Hennessy's supervision (Hennessy, 1969; Cameron, 1981; Bourke, 2008; Drabsch and Bourke, 2014).
The frescoes reveal a highly developed form of visual communication with images that can still be read, to a certain extent, by the modern viewer (Drabsch and

Fig. 1. Map of Jordan showing the location of Teleilat Ghassul.

Bourke, 2014, p. 1095). These prehistoric narratives illustrate masked processions and allude to rituals rich in symbolism and iconographic complexity. Yet, despite their importance, these artworks have been largely overlooked by art historians and archaeologists, with very little research undertaken until the author's recent study (Drabsch, 2015, in press). This paper will summarize some of the conclusions from that study, exploring the questions of when, where, why and by whom these magnificent artworks were created, leaving the question of subject matter aside for the moment.

When and where?

Teleilat Ghassul was chiefly occupied during the Chalcolithic Period of the southern Levant, a prosperous millennium falling roughly between 4700 BCE and 3700 BCE, and positioned at the transition between the Neolithic beginnings of sedentary life and the first urban phase of the Early Bronze Age. Many facets of Chalcolithic culture reflect this transitional position. The small farming villages of the Early Chalcolithic gradually increased in size and complexity over the course of the millennium (Bourke, 2008; Rowan and Golden, 2009); the agricultural and pastoral practices became ever more sophisticated and provided a reliable and significant surplus (Mairs, 2009; Meadows, 2005); the open houses and external workplaces of the early phases gradually became more enclosed and private (Bourke, 2008); technological regimes revealed ever more specialized industries (Rowan and Golden, 2009); the focus of ritual activities turned from domestic-context lineage house shrines to larger purpose-built civic-focused sanctuaries (Seaton, 2008); and aspects of deities worshipped came to reflect the new requirements and concerns of the diverse populace, echoing age-old concerns about fertility and surplus (Bourke, 2008; Drabsch, 2015, in press).

This transitional period arguably saw changes in civil governance, as the mantle of power shifted from clan elders to practitioners able to manipulate ideological power rather than force of numbers (Levy, 1995). It is possible that these civic practitioners oversaw the building of communal structures, guarded and distributed surpluses, and materialized their ideologically derived authority by restricting access to the secret knowledge of production of key specialized industries (Seaton, 2008). This was a time of innovation, prosperity and peace. At its peak Ghassul had one of the largest populations across the region, and was the focus of creativity and ritualized activities, making it the cosmopolitan capital of the southern Levant in the Chalcolithic period (Bourke, 2008, p. 146).

The spectacular wall paintings created in this flourishing village were not merely unique masterpieces of visual art but reflect a brief and brilliant episode in a long history of outstanding artistic achievement in the ancient Near East. The frescoes have many exceptional technical elements that have often been overlooked, such as impressed ornamentation, architectural features drawn from a bird's eye view, landscape designs, depictions of arguably real-life events, highly individualized masked characters, the first employment of a ground-line, and the use of carefully drafted geometric elements, all demonstrating both technical innovation and extraordinary skills (Drabsch, 2015, in press).

Although there are fragmentary murals known from other Near Eastern sites, such as those found at Bouqras (Akkermans and Schwartz, 2003), Catal Hoyuk (Mellaart, 1967), Arslan Tepe (Frangipane, 2004), Munbaqa (Dunham, 1993) and Tell Halawa

Fig. 2. Illustration of re-adjusted 'Star' fresco (by Drabsch 2015 after Mallon *et al.,* 1934: Frontispiece).

(Luth, 1989), elaborate fresco construction does not seem to have been a common occurrence. Out of all the Chalcolithic sites uncovered in the southern Levant only two small fragments of wall art have been located outside Ghassul, with one piece found at En Gedi (Ussishkin, 1971) and another at Abu Hamid (Dollfus, Kafafi, 1993). The rarity of elaborate fresco production suggests that the technology was sharply restricted, with knowledge regulated in all likelihood by ritual practitioners. After the collapse of the Ghassulian culture, there were no frescoes produced in the southern Levant for at least a millennium. However, frescoes did become more commonplace along the Syrian Euphrates during the subsequent Early Bronze Age, suggesting a greater degree of cultural continuity in the north than in the south.

Why and for whom?

While always a challenging exercise, the attempt to evaluate the role and impact of the Ghassulian murals in their society should begin with a thorough review of what may be called the cultural biography of each of the structures in which these artworks were discovered. The majority of the wall paintings found at Teleilat Ghassul were located within apparently unexceptional dwelling units, each containing hearths, a variety of storage bins and built features, and the usual assemblage of material cultural items (Mallon *et al.*, 1934; Koeppel *et al.*, 1940; Hennessy, 1969; 1982; Bourke *et al.*, 1995). However, many of the painted structures also contained atypical elements of material culture, or uncommon concentrations of ostensibly standard items. These anomalous items included caches of ceramic cornet cups, concentrations of large animal horns and child burials, in addition to finely made and carefully decorated ceramic, stone, bone and shell items (Mallon *et al.*, 1934; Koeppel et al., 1940; Hennessy, 1969; 1982; Bourke *et al.*, 1995; Drabsch, 2015, in press). Finally, some of the painted structures, such as Building 78 on Tell 3 displayed an anomalous continuity of layout and structural design over several phases of occupation, perhaps spanning 200–300 years (Mallon *et al.*, 1934, p. 132; Koeppel *et al.*, 1940, pp. 45-46).

It is possible that the painted buildings of Ghassul may have served as lineage houses (Düring 2005, p. 9), in a similar manner to those identified by Düring at Neolithic Asikli Hoyuk and at Catal Hoyuk (Düring, 2005; Hodder, 2006; Watkins, 2012). In his ground-breaking work on the significance of building continuity, Düring (2005, p. 9) suggested that simple domestic structures could become increasingly elaborate over time, as they acquired ritual significance and became central to a larger group of households.
He states: 'Through their cultural biographies domestic houses can, over time, gradually become lineage houses that are the focus of ritual activities and bind together a group of kinspeople. These buildings are of major importance for the creation and reproduction of group identities beyond the household level. A metaphor often used in southeast Asian societies where these houses have been recognised is that of a tree, with the lineage house representing the original stem of the lineage, and dependent houses as branches developing from the main body' (Düring, 2005, p. 9). The ability of these continuously occupied, ritually elaborate buildings to embody group histories, communicate ritual information, and mediate status and prestige meant that each became the key locus of power for the clustered sub-urban neighbourhoods of Ghassul. The central role of the wall paintings contained within these structures, as social guide and medium of instruction, places them at the heart of Ghassulian social organization. The function of the wall paintings within these houses seems to recall significant episodes of ritual activity carried out by the associated lineage groups. The wall paintings were renewed and often changed completely, perhaps on an annual basis, so the episodic nature of events being illustrated and commemorated and the declining relevance of older events should be taken into account. It can be argued that some of these images acted as mnemonic devices, recording key events carried out by significant lineage individuals, recording their involvement in annual processions, initiations and rights of passage, acting as history houses or memory houses in a similar way to those at Çatal Hüyük (Hodder, 2006; Watkins, 2012). By recording these activities in a manner that acted to reinforce their social message, they became intricately linked with the constructed identity of the lineage group, and in so doing acquired a degree of intrinsic value independent of their substantial production costs. This intrinsic value was perhaps related in part to the importance of the creative ritual

Fig. 3. Fragments of Hennessy's 'Processional' fresco.

of painting in itself, rather than the illustration of the subject matter alone (Lewis-Williams, Pearce, 2005, p. 222; Hodder, 2006, p. 250; Drabsch, Bourke, 2014, p. 1096).

The spectacular polychrome artwork would have enlivened these lineage houses, making the structures suitable arenas for the celebration of all types of special events. The history houses may have been curated by key ritual practitioners, with access limited to appropriately initiated family members, special guests and visiting kinspeople. The combination of bright colours seen under flickering light, the employment of finely made and occasionally exotic items, the burning of incense, the drinking of alcoholic beverages and the presence together of respected members of the clan would have provided these structures with an accruing prestige all of their own (Mallon *et al.*, 1934; Koeppel *et al.*, 1940, Hennessy, 1969; 1982; Bourke *et al.*, 1995). The possible involvement in child burial ceremonies and potentially rites-of-passage rituals, as suggested in Hennessy's 'Processional' fresco (Drabsch, Bourke, 2014), would have invested these elaborately decorated buildings with a sense of drama and pathos, affecting the lives of all individuals connected with them. In his discussion of the role of wall paintings at Catal Hoyuk, Last (1998, p. 375) came to an insightful conclusion that parallels the situation at Ghassul, stating, 'Through them people found a design for living, a *habitus,* which individuals and households worked through in their own way. And the creation of new images was in turn the outcome of that *habitus.*'

The time period between re-plasterings of the history houses is unknown, but it is possible that the regular renewal of the frescoes (as hinted at by Hennessy's observations on repeated re-paintings on a very thin lime wash, 1982, p. 56) was a ritual act in its own right. The re-imagining of important compositions, evoking current events, perhaps generated as much pomp and importance as the actual ceremonial activities themselves, as here they were being honoured and encapsulated in permanent form. It is feasible that the wall paintings carried a similar function to those at Catal Hoyuk, of which Lewis-Williams and Pearce (2005, p. 111) noted, 'The act of making and remaking was as important as – or, perhaps, more important than – the finished image.'

By whom?

So who where the creators of these images? Recent experimental projects carried out by the author (Drabsch, 2015, in press) revealed that a very high degree of technical skill, knowledge and time are required to produce large wall frescoes similar to those found at Teleilat Ghassul. It is therefore quite likely that the original murals were created by talented artisans who specialized in this very technical field (Drabsch 2015, in press). The disappearance of this knowledge at the end of the Chalcolithic implies that it might have been a closely guarded secret husbanded by the ruling elite, and lost when this group ceased to function. Due to the fact that the murals contained cultic themes there is a strong possibility that the creators of the frescoes belonged to something akin to a medieval guild either closely associated with or controlled by the ruling elites as ritual leaders. As Maringer (1977, p. 120) pointed out in his exploration of the role of early priesthoods: 'The central function of the priesthood consisted undoubtedly of offering service to a super-human power or a personal deity in charge of a community. But other functions were also perceptible, such as praying, leading processions and dances, symbolic activities, producing cult pictures and probably also cult objects, presiding over sanctuaries, and perhaps even establishing a holy calendar to fix the times of annual ceremonies and the key points of the rural year'.

These cultic pictures certainly would have reinforced the important role of the ritual practitioners in the minds of their viewers, as the materialization of ideology was often undertaken by dominant social groups and played an important role in moulding the beliefs of individuals for collective social action (Stein, 1994, p. 43; DeMarrais *et al.*, 1996, p. 16; Rothman 2004). As DeMarrais (1996, p. 18) has suggested, leaders who ruled by ideological power tended to restrict access to the materials and technology needed to create the symbolic items associated with their creed.

It is possible that ritual artists played a significant role in the Ghassulian community, and may have been held in high esteem. However, their creations were frequently covered with lime-plaster and renewed. This suggests that the value placed on these murals was differently attained from that of modern Western

Fig. 4. Illustration of Hennessy's 'Processional' fresco.

modes of appreciation. In contrast to modern notions, the people of Ghassul frequently covered over their stunning murals and repainted quite different scenes on a reworked blank surface, supporting the view that the ritualized act of creation was perhaps at least as important as the finished artworks themselves. This does not mean that individual scenes were not significant in themselves, as the attested repetition of key design elements would indicate the opposite (Drabsch, 2015, in press). As proposed above, the scenes were probably very important to the curators of the decorated houses and/or sanctuary buildings, and most likely served a mnemonic function, recalling significant rites of passage, ritual performances or ceremonial events. It is likely that the ritual practitioners repainted these scenes when a significant event had been deemed to occur, with slight alterations made to reflect the latest circumstance. It is also quite plausible that the specialized artisans who perfected the pyrotechnical skills necessary for fresco production, were closely connected to the people who developed the complex and highly innovative metallurgical industry, another guild or fellowship that disappeared with the collapse of the Ghassulian society (Gonen, 1994: 80, Tadmor, 2003, p. 277; Seaton, 2008, p. 167; Rowan, Golden, 2009, pp. 71–72).

Discussion

The intricately painted wall frescoes of Teleilat Ghassul play a significant role in our understanding of the sociology of late prehistoric peoples in the southern Levant. The artworks from this time have been largely overlooked in comparison with earlier and later periods, yet they reveal significant insights into the organizational principles governing the lives of individuals during this transitional era. The compositions of the paintings reveal highly developed visual narratives, recording events, unique features and distinctive characters, and were most likely used to record and fix memories of special occasions which illustrated key elements of their beliefs. The depiction of these scenes on the walls of their communal dwellings emphasized a sense of place and a sense of belonging, binding the viewers together through shared memories in pigment.

The act of creation may well have contained a ritual significance in and of itself, one key component in a larger ritual event. The highly developed skills needed to produce the Ghassulian frescoes indicate that the artisans were most likely trained professionals

perhaps belonging to a specialized guild akin to that of metalworkers. The members of this guild were perhaps regulated by or attached to the evolving group of ritual practitioners who appear to have been a significant and powerful governing entity at this time. The fact that this closely guarded knowledge disappeared with the collapse of this distinctive culture reinforces the assumption.

By looking at the larger questions of why the paintings were produced, where they were situated, who created them and who their audience was, rather than focusing too closely on the albeit intriguing subject matter of the individual paintings themselves (for which see Drabsch, 2015), we can gain some further insights into their significance within the socially enigmatic, symbolically rich culture that flourished beside the Dead Sea in the later years of the fifth millennium BCE.

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Rock Art: When, Why and to Whom? Two Danish Examples

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Introduction

Danish rock carvings are generally dated to the Bronze Age (in Denmark, 1700–500 BC) and belong to the southern Scandinavian rock art tradition. Traditionally the core area for the southern Scandinavian Bronze Age Culture comprises northern Germany, Denmark, middle and southern Sweden and southern Norway.

The imagery is broadly seen as an expression of fertility based on an agricultural societal context, but regional differences within this region apply. It is clear that rock art in inland Denmark has a different expression and meaning from the rock carvings in coastal areas of Sweden.

The Bronze Age societal order in Denmark and Scandinavia represents a socially stratified society, generally labelled aristocratic, with chieftains and chiefdoms based on some form of heritable social ranking and a warrior ideology (Artursson, 2010, p. 90). In Kristian Kristiansen's words: 'It was a warrior culture based upon the farming economy of cattle husbandry' (Kristiansen, 1998, p. 289). This development of an elite ideology should be seen in the light of the trade networks that brought the bronze from central Europe to northern Europe (Kristiansen and Larsson, 2005).

Danish rock art

The most common motif in Denmark is the cup-mark, which by far outnumbers the figurative motifs (fig. 1). Most probably it represents the cyclical concept connected to birth, rebirth and fertility. However, the symbol has such broad possibilities for interpretation that the exact meaning must have varied in relation to other motifs, in which context it appeared and for what purpose it was carved.

The figurative motifs in Denmark are generally less varied and less complex than the other parts of southern Scandinavia. In Denmark the most common figurative motifs are geometric symbols, wheel crosses, ships, feet, hands and humans. A regional character is apparent in Denmark where ship motifs are most common on Bornholm, but geometric figures and wheel crosses more common in the rest of Denmark (fig. 2).

In some cases there is a clear link between motif, context and landscape setting. Here the most obvious example is the ship symbol which is connected to water. The hand symbol is almost always related to graves and therefore is clearly linked to death and burials (Kaul, 2004, p. 149).

Denmark is geologically distinct from the rest of Scandinavia because of the lack of bedrock, which only occurs on the island of Bornholm. Bornholm is famous for its rock carvings because here we find elaborate figurative carvings as we see them in the rest of southern Scandinavia. Rock art in the remaining part of Denmark is therefore carved on glacial erratic boul-

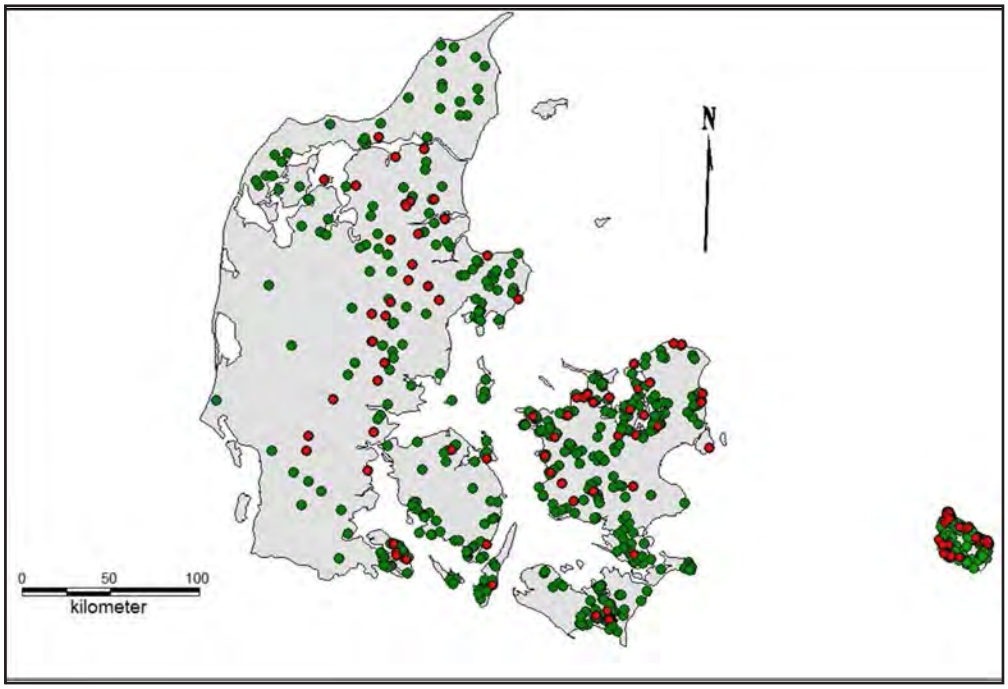

Fig. 1. In situ rock art. Green = cup-marks. Red = figurative. (Illustration by author. Fortidsmindedata©kulturstyrelsen).

ders, already erected megalithic tombs or on kerbstones and/or coffin slabs in burial mounds (fig. 3).
The following two examples of typical rock art settings in Denmark will be presented along with thoughts on why, when and for whom they were made.

Rock art and burial mounds

Rock carvings in burial mounds occur throughout Denmark but a concentration is seen on the Jutland peninsula. Generally, the rock art in burial mounds is found on the kerbstones surrounding the mound or as part of the burial on coffin slabs.
These burial mounds are typically situated on higher ground with good visibility of their surroundings. Burial mounds are often found in groups and often seem to be creating linear passages in the landscape, which can be interpreted as routes of travel and communication (Müller, 1904; Thrane, 1998; Johansen *et al.*, 2003).

Mørup burial mound

The burial mound from Mørup near Vejle, Jutland is an example of a burial mound from the (late) Neolithic with continued use in the Bronze Age. The mound (now gone) was built with a stone wall around it and one of the stones had been carved with a wheel cross.
The stone was discovered in 1918 and it was said to be one of the biggest stones in the stone wall circle. It was situated facing due south with the image facing outwards. The stone is 0.95 m high, 0.67 m wide and 0.33 m thick. It was decorated with a wheel cross, faintly pecked and 20 cm in diameter with furrows 1.5–2 cm wide. The mound itself contained two burial chambers that had previously been disturbed, leaving them with no remains. They are presumed to be of late Neolithic date (Glob, 1969, p. 246).
The stone from Mørup is a good example of how rock art in Denmark is expressed on available rock surfaces, but not just any available surface. The stones are carefully selected and would often be part of already existing monuments, as in this case. The time depth

Fig. 2. Common figurative motif types in Denmark.

of the landscape is an important factor when trying to understand the symbolic meaning of rock art.

It is no coincidence that the wheel cross was carved on a stone which was part of an earlier monument and it was no coincidence it was facing south. Here the worship of the sun, symbolized by the wheel cross, is clear, as the stone is facing south, that is, facing the sun when it is at its highest in the sky at midday.

There are plenty of other examples of rock art from burials mounds built in the Bronze Age. There is, however, an interesting distinction of the placement of the rock art in the burial mounds. Some are visible on the kerbstones facing outwards towards the public and have most likely been part of a scene for ritual activity. Other carvings are situated on coffin slabs, inside the mound, facing the dead and immediately covered after the burial. Such stones therefore must be understood in a different symbolic context related to the passing of the dead.

The open context of the rock art must, such as the kerbstone from Mørup, have involved the society as a collective and seeing the wheel cross as a symbol for the sun it is presumed that rituals involving fertility took place on the south-facing grounds at the burial mound at Mørup during the early Bronze Age.

Rock art on megalithic tombs

Another category of rock art in an open context is rock art carved on megalithic tombs. Megalithic tombs with rock art are generally situated on higher ground in the landscape, typically with a coastal location and connection to water. The visibility from the tombs is generally good and they dominate and inhabit their landscape with a powerful presence.

These monuments are some of the earliest monuments in Denmark built in the Neolithic and therefore they already possess great significance in the Bronze Age. As in the previous example, these rocks are not chosen randomly.

A dolmen from Sejet, Horsens

A dolmen near Sejet Nørremark, just outside Horsens, Jutland is a perfect example of a megalithic tomb with rock art (fig. 4). Cup-marks are seen on the capstone of the dolmen and it is presumed that the symbols were made some time after the primary use of the tomb in the late Neolithic or early Bronze Age. The dolmen is

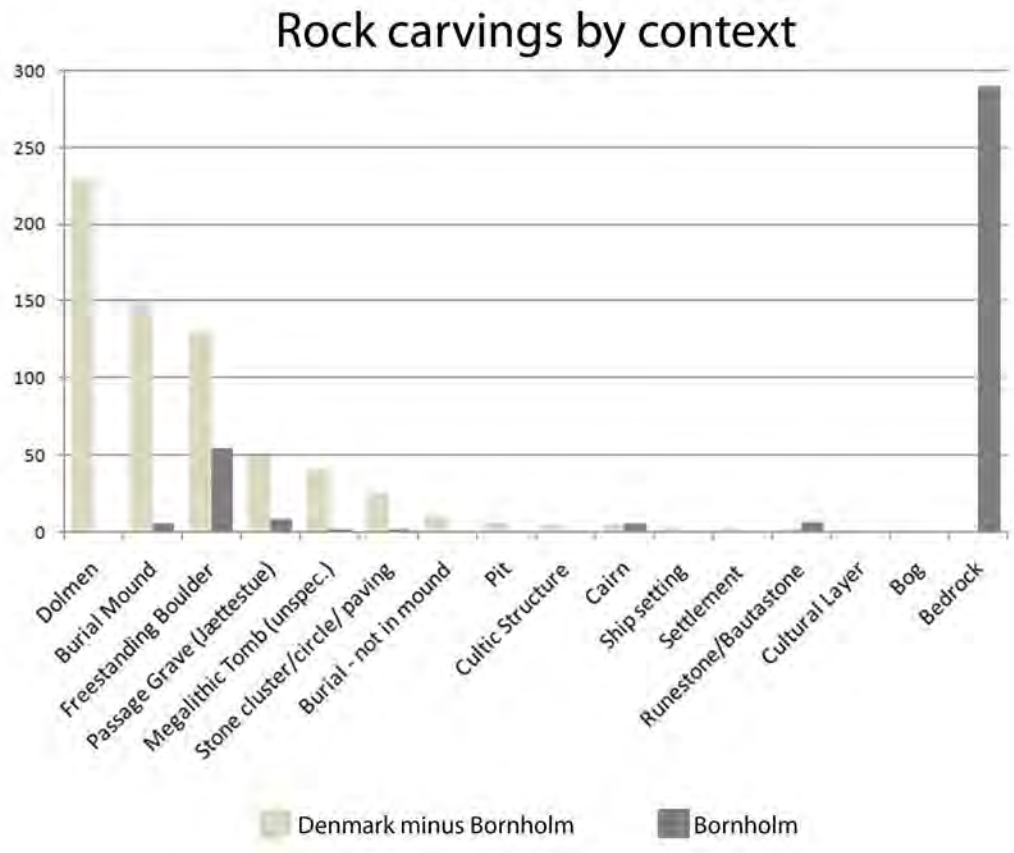

Fig. 3. Rock art by context. (Illustration by author. Fortidsmindedata©kulturstyrelsen).

situated on the southern side of Horsens fjord with a direct view of the water. This is a typical location for such a monument and a link between rock art and water seems to be apparent.
The cup-marks were first noticed in 1915 and the tomb has since been registered as a scheduled monument. The dolmen consists of seven carrier stones and a capstone which is covered with cup-marks. No further cup-marks have been registered on other surfaces (Fund and Fortidsminder, stednr, 170112-23, systemnr, 55435).
The use of capstones for rock art is a well-known phenomenon in Denmark. It is argued that the rock carvings on megalithic tombs along with rock carvings on bed rock and rock carvings on kerbstones in burial mounds were all purposely visible and involved the society as a collective for meeting grounds.The reasons for assembly at rock carving sites are likely to have been gatherings that involved sociopolitical and religious activities based on fertility rites that would secure the world order and the power of the elite.

The meaning of rock art

The meaning of rock art remains an enigma, but the rock carvings can be seen as an expression of ideology and religion. The sun and its journey across the sky is the major element in the Bronze Age cosmology and this is clearly expressed, not only in the rock art, but also on the bronze artefacts from the period (Kaul, 2004). Aspects of fertility, life and death are a natural part of the Bronze Age life and therefore naturally present in the iconography.
The contemporary Bronze Age settlements are often found in the vicinity of the rock carving sites, and it is therefore presumed that the local population would be very aware of the special places marked with the powerful symbols.
Although the rock art belongs to a super-regional iconography it is clear that local interpretations and use of the symbols must have occurred. The function of the rock art should be seen in light of expressing socio-religious myths where the local power elite would legitimize their claim to the land by communicating with the gods and ancestors. Excavations at rock art sites in Bornholm have revealed signs of activity near the rock surface but have also indicated signs of regulation of access to the site. These evidence suggests that

Fig. 4. Sejet dolmen with cup-marks. (Photo by author).

rock art sites have been sites with highly ritual activity, regulated by the higher orders of society (Adoranten, 2006).
Rock art in a visible and open landscape context seem to convey a shared symbolism where the rock carvings communicate with the surroundings communities as well as with other-worldly powers. The key point is that they have been visible and have involved the society as a collective when gathering at these sites to produce new carvings or perform rituals. Unfortunately not many excavations have been carried out near megalithic tombs with rock art in Denmark, but one could assume that these places were used as ritual meeting grounds (Felding, 2010).
Rock art played an important role in the Bronze Age and the motifs still convey stories we try to understand today. Rock art was part of the everyday as

well as being part of the religious and ritual sphere of Bronze Age society. Rock art should therefore be seen as taking part in a dynamic relationship between the land, the people and the power (Hygen and Bengtsson, 1999: 139).

Viewing rock art in relation to the contemporary settlement pattern and activities is paramount and signs of ritual activity near monuments with rock art should be seen in the light of the socio-political and cosmological order of Bronze Age society.

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Hunter-gatherer rock art in two regions of Central-Southern Patagonia (Argentina): contrasting visual themes, techniques and landscapes

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The discovery and study of rock art in Patagonia had an early start in the 19th century (Moreno, 1876; Burmeister, 1892), and it has been the subject of continuous research throughout the 20th and 21st centuries (see syntheses in Podestá, 1996; Fiore and Hernández Llosas, 2007; Fiore, 2012). Following the key questions raised in this project *When, Why and to Whom*, we present here a brief overview of our research on hunter-gatherer rock art from two archeological regions located in Central-Southern Patagonia (Santa Cruz Province, Argentina): the Extremo Sur del Macizo del Deseado (henceforth ESMD) and the Margen Norte del Río Santa Cruz (henceforth MNRSC) (fig. 1).

These two large regions (see map in fig. 1) are separated by more than 150 km, a long and flat space that includes the Chico river basin; the regions are clearly distinct in terms of their landscapes as well as of the resources available for hunter-gatherers in the past (Franco and Cirigliano, 2009; Acevedo *et al.*, 2014). Both regions are characterised by a steppe environment with small shrub vegetation. ESMD is characterised by ignimbrite and sandstone rock outcrops surrounding lagoon basins, as well as by short canyons, with a great number of caves and rock shelters of different sizes (Franco *et al.*, 2013). MNRSC is characterised by long basalt canyons which run transversely to the northern shore of the Santa Cruz river with a roughly North–South orientation (a few sandstone outcrops are also recorded); these canyons have high vertical walls of irregular shapes, and include fewer caves and rock shelters than ESMD (Franco *et al.*, 2014).

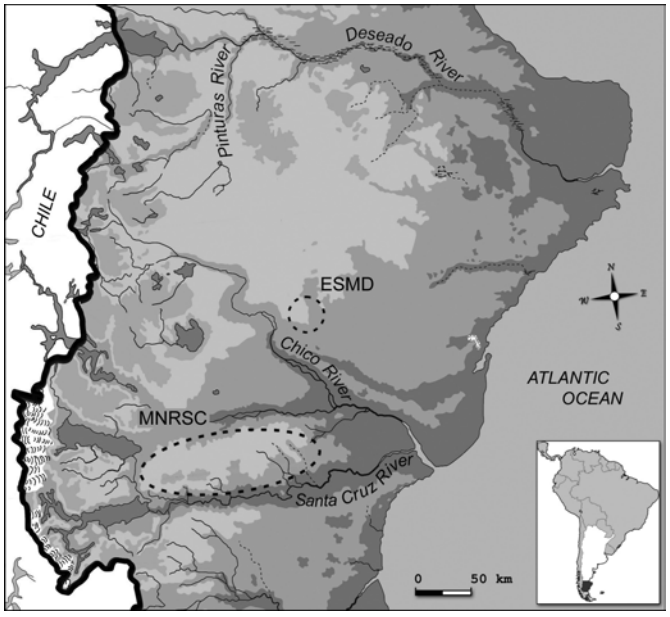

Fig. 1. Map of Central-Southern Patagonia (Argentina) with ESMD and MNRSC regions marked with dotted lines.

Both regions differ in terms of their environment and resources: while ESMD has greater availability of siliceous rocks of very good quality for knapping tools, as well as several natural pigment sources which are easy to locate and to access, MNRSC is currently less arid and has comparatively more water sources, a feature that paleoenvironmental studies seem to confirm for past times too (Franco and Cirigliano, 2009, Acevedo *et al.*, 2014).

Rock art shows great differences in both regions in terms of its motif types, themes, production techniques and site topography. ESMD is characterised by a motif repertoire of 54 types, which include hand negatives, guanaco[1] figures, geometric motifs made with solid lines (circles, meanders, zigzags) and/or with dots (dotted circles, U-lines, parallel rows of dots, etc), three digits (bird footprints), etc These were mainly made using positive and negative painting techniques to apply a vast series of colours, red (in different tones), black, yellow, orange, green. Most of these motifs have been recorded in caves and rock shelters which offer an effective shelter for the images from environmental factors which can affect their conservation (Acevedo *et al.*, 2014). MNRSC is characterised by a repertoire of 47 types, which includes circles combined with lines, straight lines, meanders, three digits, dotted motifs and a few guanaco figures. These were mainly made using engraving techniques: mostly pecking, as well as incision and scraping. Hand negatives have also been recorded. Most of these motifs have been found on

1 A camelid species named *Lama guanicoe*.

Fig. 2. Painted negative hands at Site 23, Viuda Quenzana locality, ESMD region.

open-air walls, which do not offer effective shelter for these images (Fiore and Ocampo, 2009; Acevedo *et al.*, 2014).

When?

Central-Southern Patagonia lacks so far direct dates for rock art motifs; therefore, the chronological sequence built by archeologists working in this area comes from inferences developed from images covered by dated layers, production remains found in archeological dated layers and chemical analyses of pigments found in dated strata, compared with pigment samples of painted motifs. Results of these researches suggest that rock art in Patagonia stretches along a wide temporal sequence, beginning c. 9,300 years BP at the site Cueva de las Manos (Gradin *et al.*, 1979) up to the contact period between indigenous peoples and European groups in the 16th century.

Given that rock art production can be dated preliminary through relative dates provided by the earliest and latest radiocarbon datings found in each region, which come from excavations at rock art sites: in ESMD, hunter-gatherer occupations range between c. 10,800[2] and 400[3] years BP; in MNRSC they range between c. 7,700[4] and 1,000[5] years BP (Franco *et al.*, 2013, 2014).

Also, one red pigment has been found in a layer dated c. 10,800 and 10,400 years PB at the site La Gruta 1, which suggests that colouring substances were being handled already in those initial moments of the occupation of the region, either to produce rock art or for other activities (Acevedo *et al.*, 2014).

In MNRSC, one yellow and two red pigment remains, of similar tones to the painted rock art images, have been found in the layers dated between c. 1,700 and 1,000 years BP at the sites of Mercerat 1, Bi Aike 3 y Yaten Guanjen 1 (Franco *et al.*, 2014). Given that the archeological signals of human occupation in the region are most frequent during this period, it is possible that part of the rock art images may have been produced at this time. The engravings, which are the most frequent type of rock art in this region, may also have been produced during this period; however, the

2 La Gruta 1 Site (Franco *et al.*, 2013).
3 La Gruta 1 Site (Franco *et al.*, 2013).
4 Yaten Guajen 12 Site (Franco *et al.*, 2014).
5 Yaten Guajen 1, Yaten Guajen 12, Bi Aike 3, Mercerat 1 Sites (Franco *et al.*, 2014).

beginnings of their production may have been earlier (c. 2,500 years BP), as shown by data from other Patagonian regions (Gradin, 1988; Re, 2010).
Different engraving patinas, states of conservation of paintings and engravings, and motif superimpositions indicate that in both regions several rock art production events may have taken place through time. However, given that patina and conservation depend not only on age, but also on local environmental conditions (e.g. rock type, shelter, weathering, etc), further studies will be required to identify such distinct events.

Why?

The reasons why rock art was produced by hunter-gatherers in Central-Southern Patagonia are evidently complex, since they involve multiple factors. Due to space limitations, we will focus on three of them: spatial location, image-making techniques and represented themes. Regarding spatial location, in ESMD rock art is mainly located in rock shelters and caves, while in MNRSC it is mostly located on open-air rocks.Why was art produced in these different topographies? As noted above, systematic fieldwork observations show that ESMD has many more caves and rock shelters than MNRSC, while MNRSC is characterised by large walls; therefore, a first answer to this question is that topography availability was different in each region, which may have led to the regional differences found in rock art location. Yet both regions share the fact that these images are not hidden, but are rather quite accessible and visible by any observer (past and present). In turn, this can be related to the question regarding image-making techniques: why are images in ESMD mainly painted while in MNRSC they are mainly engraved? This may be related to pigment availability, which, according to observations of the current landscape, is greater in ESMD, as well as to the fact that open-air walls in MNRSC do not offer proper shelter for painted images, while caves and rock shelters in ESMD can to an extent offer more protection from environmental factors affecting their conservation. This may be one of the reasons why hunter-gatherers chose engraving techniques to create images on the open-air walls of MNRSC, since they would last longer under such conditions (moreover, smudges of paint of unidentifiable shape suggest that they made some painted motifs, which were deeply affected by weathering, erosion, etc).
Regarding the question of what was represented, the process of visual communication underlying the display of rock art images can operate at different levels. These three analytical levels require a high degree of cultural knowledge shared between the producer and the observer. First, the formal perception and description (shape, colour, etc) of the motifs, their spatial layout and combinations: although both regions share some motif shapes (e.g. hand negatives, guanacos, bird footprints), they greatly differ in their colours, since rock art in ESMD is much more colourful because it is painted in several hues, while the engraved rock art in MNRSC provides a much more homogenous experience in terms of the visual perception of its patinas. The second level entails the identification of the motifs' referents (i.e. the real or imagined represented subject, if the motif did have a referent): this is only possible for the viewer if he/she knows the appearance of the actual represented referent of a figurative motif (e.g. an zoomorphic motif resembles a known fauna species), or if he/she knows the visual code underlying the representation of a referent through an abstract form (e.g. in a certain cultural visual code, a geometric motif represents the soul of the ancestors). As noted above, given the similarity between the formal aspects of some designs and the actual appearance of their referents, in both regions we can currently identify the representation of human body portions (hands), fauna species (guanacos) and fauna footprints (birds,

Fig. 3. Painted guanaco figure with curved lines at Site 08, Viuda Quenzana locality, ESMD region.

possibly some *Rheidae* species); to this we can add the identification of motifs representing human footprints in MNRSC, which have not been identified so far in ESMD (Fiore and Ocampo, 2009; Acevedo *et al.*, 2014). Highly geometric motifs, such as circumferences and meanders, are extremely frequent in MNRSC, while dotted lines forming different shapes are typical of ESMD: in these cases, we cannot pass from the first analytical level – formal description – of the motifs, since we cannot identify the represented referents (if such geometric motifs were indeed representational). Finally, the third analytical level refers to the interpretation of the referent's meaning/s (i.e. the concepts, values and/or feelings connoted by the referent itself as well as by the combination of two or more motifs). Such interpretation requires knowledge not only about the motifs and their represented referents, but also about the information (data, concepts and/or values) they encoded (Panofsky, 1972; Washburn, 1983; Conkey, 1984). Given that we are dealing with prehistoric contexts and lack ethnographic information that might help build such interpretations, we cannot offer rigorous analyses of what these images may have meant for their authors and past viewers. However, even if we currently cannot decode their meanings, the recurrent use of specific motif types, sometimes combined in the same manner and with similar spatial layouts, constitute identifiable visual themes (Leroi-Gourhan, 1967; Aschero, 1997). Thus, contrasting themes can be identified in both regions under study: while ESMD is characterised by a human and animal theme (representations of hands of all sizes denoting individuals of all ages and guanaco figures denoting key hunting prey for these Patagonian hunter-gatherer societies), MNRSC is characterised by a highly geometric theme (of unknown referents and meanings for present viewers), while hand negatives and guanaco figures are present in a much smaller proportion. Therefore, although at present we cannot read the past meanings of these images, we can approach some levels of their contents.

Fig. 4. Engraved geometric and footprint motifs at Yaten Guajen III, MNRSC region.

To whom

Rock art is fixed in space, located in certain bedrock topographies and in certain environments: this means that rock art's spatial display and distribution can shed light regarding hunter-gatherer mobility and landscape construction, since images can be used to mark and create territories, spaces and places (Jochim, 1983; Conkey, 1984; Bradley *et al.*, 1994; Aschero, 1997; Fiore, 2006; Lessen-Erz, 2008). Results of our research in the regions under study suggest that rock art production in ESMD and MNRSC shows several differences and some similarities in the construction of their visual landscapes, which in turn helps to ascertain to whom these images were addressed. As noted above ESMD and MNRSC differ in terms of the bedrock types (ignimbrites versus basalt), chosen topographies (caves versus open-air walls), main motif

Fig. 5. Engraved guanaco figure at El Lechuza, MNRSC region.

types and represented themes (hands and guanacos versus geometric designs) and production techniques (painting versus engraving): these differences suggest that the recurrent creation of rock art images by hunter-gatherers in these two separated regions generated two different visual landscapes, and that interregional contact did exist, but was not intense. In turn, this indicates that visual communication was more intense at an intra-regional scale than at an interregional scale, thus evidencing that probably rock art was addressed for – and observed and reproduced by – local populations more than non-local populations circulating in other regions of Patagonia.

However, given that some motif types – negative hands, positive hands, guanaco figures, bird footprints, human footprints, circumferences – do appear in both regions (with very different frequencies) and are also recorded throughout Patagonia (Gradin, 1988; Aschero, 1997), it is clear that both regions also share elements, which is consistent with the existence of hunter-gatherer networks operating at interregional scales. Moreover, it is noticeable that both ESMD and MNRSC share the fact that rock art images are displayed in clearly visible sites, where motifs are not hidden and could be viewed by all members of the community: this suggests that rock art was addressed to viewers of all ages and genders, and that images were intended to be seen not only by local site inhabitants but by any contemporary passer-by who approached the ESMD rock shelters and the MNRSC open-air walls. Given the recurrent use of some panels (which can contain dozens and sometimes hundreds of motifs), the existence of some superimpositions, as well as the location of painted images in sheltered bedrocks in ESMD and engraved images on open-air walls in MNRSC (where, according to each technique, they have greater chances of surviving the challenges to their long-term conservation), it is also possible to think that rock art was addressed also to future generations of hunter-gatherers.

Thus, through rock art production, Patagonian hunter-gatherers created visual landscapes as contexts through which they could communicate with contemporary members of their communities, with other neighbouring and distant populations, as well as with their descendants. The formal features, technical qualities and spatial layout of these designs have a deep archeological value, which includes both their scientific relevance and their importance as cultural heritage. Parts of their messages are now probably lost, but the material presence and visual power of these images are a precious legacy that still lives on with us.

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The Venus of Hohle Fels and mobiliary art from Southwest Germany

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The search of meaning of European Upper Palaeolithic art, has been a major focus of debate among scholars. Research has progressed from the views that it is art for art's sake or sympathetic hunting magic to approaches that stress art as information exchange (Bahn, Vertut, 1997). The figurative motifs could be naturalistic representations of the world round the creators, such as the panel of swimming deer at Lascaux, more religious and ritualistic like the "sorcerer" at Les Trois Frères or components in a system of visual display and information exchange. Key questions are what kinds of societies produced the art, what was it intended to convey and who was the anticipated audience. Here we are going to explore these issues using mobiliary art from the Swabian region of southwestern Germany, especially the Venus of Hohle Fels, to provide further insight into our understanding of the meaning and context of Upper Palaeolithic art in Europe. Fagan (2010, p. 137) suggested that these figurines are "far more than mere art objects. They are symbols of a burgeoning and obviously complex range of spiritual beliefs."

The Venus of Hohle Fels was recovered from the basal Aurignacian deposit at Hohle Fels Cave and is dated to c. 35,000 years BP (Conard, 2009). The surface of the female figurine has multiple, deeply incised short, long, straight and curved lines on the breasts, shoulders, across the abdomen and back, down the arms and on the legs (fig. 1). These lines were deliberate and produced with significant effort and one assumes intent. It has been proposed that they may represent schematic depictions of skin clothing (Conard, 2009; Mellars, 2009). However, there is a good case that the incised lines may be carefully rendered naturalistic details. Based on this assumption, an alternative explanation for the incised markings on the Venus of Hohle Fels is that they represent scarification or cicatrices (Franklin and Habgood in press). The

Fig. 1. The Venus of Hohle Fels (copyright: University of Tübingen.

extent, nature and position of the incised lines are consistent with being representations of scarification, especially the horizontal lines across the abdomen, thighs and lower back, the more oblique lines down the arms and the curved lines on the upper chest and breasts.

There is other Aurignacian mobiliary art from this region (Porr, 2010a), some of which may also have representations of scarification. A statuette of a human with a feline head (therianthrope) from Hohlenstein-Stadel has a series of regularly spaced incised parallel lines of similar lengths on its left upper arm which may be representations of cicatrices (fig. 2). Two anthropomorphic figurines, one from Vogelherd and the other from Geißenklösterle, have multiple pitted lines that could also represent cicatrices (Porr, 2010a:, fig. 1, p.10, fig. 2, p. 6). Some animal figurines, including mammoths, horses, bison, bears, cave lions (fig. 3) and other felids have straight and wavy lines, dots and criss-cross designs incised on their surfaces (Porr, 2010a, figs. 1–2). As with the Venus of Hohle Fels and the therianthrope from Hohlenstein-Stadel, the positions of the markings on the bodies of the animal figurines (backs, shoulders), as well as their form (predominantly straight lines), are consistent with cicatrization, reflecting locations on the animals equivalent to scarification marks on the human body.

In Australian Aboriginal societies, cicatrices (decorative scars) were made for a range of reasons,

but in particular they are marks of initiation and affiliation to a particular social group. It has also been recorded that Aborigines cicatrized themselves to copy the Dreamtime beings (Flood, 2006; Gould, 1969). Therefore, the Venus of Hohle Fels and the other figurines from the Swabian region of southwestern Germany may be the Upper Palaeolithic equivalent of cicatrized Ancestral Beings in Australian Aboriginal cosmology.

Key issues

Here, using the mobiliary art from the Swabian region of southwestern Germany, we will consider the key issues of what kinds of societies produced the art, what the art was intended to convey and who was the anticipated audience.

The sites in the region that have yielded the Aurignacian figurines are near the Danube River valley, which may have been the route by which early *Homo sapiens* entered Europe (Mellars, 2009). Porr (2010a) suggested that the figurines reflect "cultural memory", a shared memory of the mythological past in which ancestors and mythical beings shaped the world, similar to the "Dreaming" in Aboriginal Australia. Our view is that the anthropomorphic, therianthropic and animal figurines from the region may be representations of Ancestral Beings.

Fig. 2. Therianthropic figurine with cicatrices on its arm from Hohlenstein-Stadel, Germany (Photograph by Alexander Marshack, courtesy of the Paul Bahn collection).

If one assumes that the markings on these figurines were symbolic, the straight lines and lines of dots may represent cicatrices, while the more elaborate markings (criss-cross designs and wavy lines), could possibly represent "clan designs". In recent Aboriginal societies, cicatrices and clan designs established connections between Aboriginal groups, ancestral beings and "country". In this way people knew to which country they and the various designs belonged. This bonding of groups and emblemic behaviour is thus represented by items of material culture that transmit a message of group identity and functions to mark the territorial boundaries of a group (Conkey, 1982; Taçon, 1994; Wiessner, 1983).The process of marking country through clan designs may also have been an integral part of the cultural repertoire necessary to successfully establish a presence in Europe by small groups of anatomically and behaviourally modern hunter-gatherers, a visual reflection of custodianship of particular parcels of land.

Conard (2009) suggested that, as it preserves polish, the "head" of the Venus of Hohle Fels (a carved ring) was designed to facilitate suspension as a pendant. Therefore, it would seem reasonable to conclude that it was part of a visual system of display and information exchange. It is broadly similar to other Venus figurines from later predominantly Gravettian contexts at sites across Europe, from the Pyrenees into southern Russia. These later Venus figurines have broad similarities of design, and are restricted in terms of time but extensive in terms of their geographical distribution (Gamble, 1982). The similarities between the Venus of Hohle Fels and other Venus figurines include the exaggerated sexual attributes, especially the upright, large breasts, the lack of emphasis on the head, arms and legs and the careful rendering of the hands (Conard, 2009; Mellars, 2009).

Gamble (1982) proposed that the distribution across much of Europe and restricted chronological placement of Venus figurines in the Gravettian indicated their function in more open social networks at a time of climatic deterioration (see also Barton *et*

Fig. 3. Carving of a lion's head from Vogelherd (Bildherkunft/-rechte: Landesmuseum Württemberg, Stuttgart, Photograph: H. Zwietasch) [CC BY-NC-SA]

al., 1994). This is an example of what we have called "bonding" behaviour (Habgood, Franklin, 2014), long-distance links between groups of people reflected in the alliances that during times of resource stress and shortage enabled access to the resources of other groups and facilitated communication and social interaction. Consequently, the "country" of a group would be linked into a much broader cultural landscape.

A similar situation pertained in Australia in the ethnographic past, where it has been proposed that Aboriginal people adopted sociological solutions to manage and minimize the risks of the irregular aridity that is a feature of the continent. These solutions included more open social networks, extensive exchange systems and the establishment of "dreaming tracks" (Franklin, 2004; Habgood, Franklin, 2014).

In Australia shared dreaming tracks, mythology and ritual, therefore, cemented alliances over large distances. If the Venus of Hohle Fels was a representation of an ancestral being, it would be reasonable to suggest that the later Gravettian Venus figurines were also representations of ancestral beings and their distribution across much of Europe documents bonding behaviour, extended social networks (Gamble, 1982), and shared mythology and ritual.

It is possible, therefore, that there was also an earlier extended social network (shared mythology) across Europe during the Aurignacian, of which the Venus of Hohle Fels formed a part. This social network may be reflected in the similarities in different artistic media, including: the extreme exaggeration of female sexual characteristics on the Venus of Hohle Fels and the explicit vulva designs incised on a series of limestone blocks recovered from early Aurignacian sites in western France, including La Ferrassie and Abri Cellier – interestingly one such block from La Ferrassie had a sculpted animal head on the other side (Bahn, Vertut, 1997; Mellars, 2009; Zilhão, 2007); an incised zoomorphic figure, incised vulva and rows of pits (representing cicatrices?) from Aurignacian levels at La Ferrassie (Zilhão, 2007); the style and motifs of early possibly Aurignacian rock paintings from the French sites of Aldène and Chauvet and the animal figurines from southwestern Germany (Zilhão, 2007), especially the mammoths, horses and lions – compare the carving of a lion's head from Vogelherd (fig. 3) with representations of lions at Chauvet Cave (fig. 4); and the exaggerated sexual features of the so-called Venus of the Grotte Chauvet, a black drawing of the lower part of a female body showing a large pubic triangle, short legs with no feet and an engraved vulva (Porr, 2010b), and the Venus of Hohle Fels.

The bonding behaviour represented by the Aurignacian social network detailed above would have been particularly useful during an extensive colonization, process as it would have facilitated communication and social interaction between related communities during a period of expansion and assisted with access to resources in times of need.

Conclusion

Australian Aborigines use rock art to tell stories, often detailing the journeys across the landscape of ancestral beings. These beings often bore the marks of cicatrices on their bodies, which look like the series of incised lines on the Venus of Hohle Fels, interpreted in this

Fig. 4. Images of lions from Chauvet Cave, France (Photograph Jean Clottes).

paper as cicatrices. It would seem reasonable to assume that mobile and parietal art produced by European Upper Palaeolithic peoples was, like Australian Aboriginal art, also encoded with meaning. Shared dreaming tracks, mythology and ritual cemented alliances over large distances and were particularly useful during times of resource stress or colonization or expansion, as they facilitated communication and social interactions between related communities and assisted with access to resources. The Venus of Hohle Fels, dated to the Aurignacian, and the later, Gravettian, Venus figurines, may be ancestral beings, some bearing cicatrices and/or clan designs, that document dreaming tracks, shared mythology and ritual across Europe.

The Venus of Hohle Fels suggests the continuity of motifs of figurative art and ideas between the Aurignacian and the Gravettian (Porr, 2010a; 2010b). The Venus of Hohle Fels may also have been part of an extensive Aurignacian social network that was cemented by different artistic media, including the animal figurines from southwestern Germany and parietal art and incised limestone blocks from France, at the time of the initial colonization of Europe by *Homo sapiens*.

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Chalawong: a forgotten site

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Introduction

The Chalawong petroglyph art site is in the territory of the Yuggera and Jagera people of Southeast Queensland, Australia. Previously known as Rocky Scrub Creek shelter and Gatton shelter, Chalawong is the local term for a currawong bird. It is situated in the foothills of the Great Dividing Range near Rocky Scrub Creek and beside a recently paved road to a diatomaceous-earth quarry nearby. It sits approximately 35 km south of the large rural town of Gatton in the state of Queensland.

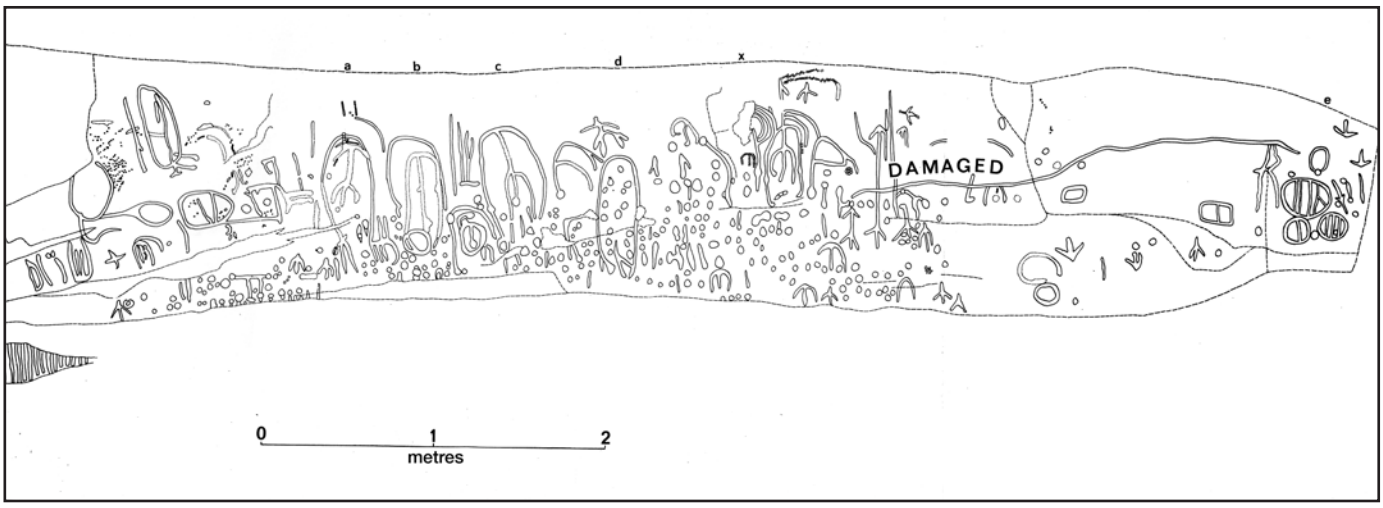

Fig. 1. Tracing of the Chalawong petroglyph panel drawn by Michael Quinnell.

Chalawong is significant and unique as it is the only known rock shelter with engraved petroglyphs in southeast Queensland (an area almost the size of Sicily) and it also represents a continuity of rock art use with datable excavated deposits that illustrate changes over time**.** This site also has historical importance as it represents the first archaeological excavation in Queensland[1].

The site has rich occupation deposits as attested by a general scatter of stone artefacts, bone, shell, ochre and charcoal, with an occupation base estimated at 4,000 years BP. Another significant aspect is the continuity of occupation and related archaeological evidence. As Morwood states, 'The valley was still being used by the local population in the 1840's, during the early European settlement period' (1984, p. 100).

This continuity of use is due to Rocky Scrub Creek gorge forming a natural access route between the areas of the Darling Downs and the Lockyer valley, facilitating access by Aboriginal groups from the coast to the Bunya Mountains, especially for the triennial Bunya nut festival. As such, Chalawong was most likely used as a temporary shelter for this purpose, among others[2].

The art

The Chalawong parietal art site is a beautiful and dense petroglyph panel engraved on the rear wall of a sandstone overhang. It is a composition of over 12 m^2 of non-figurative motifs, which are mainly drilled, pecked and/or abraded inverted Us, arcs, circles, ovals, holes or corpules, lines and so-called tally marks and bird tracks (Flood 1999, p. 50). Macropod tracks such as kangaroo and wallaby tracks also feature. The composition boasts 268 drilled holes singularly or integrated into larger designs, but the majority of these drilled holes are situated on the lower portion of the panel.

Some of the engravings resemble the designs used in body painting or scarring by Aboriginal people

1 This was performed by Tyron in 1884. Tyron 1884: 52.

2 Bones from reptiles and perch point towards summer use without precluding winter use, Morwood 1984: 107.

Fig. 2. Photograph of the petroglyph panel at Chalawong. (Photo by Marisa Giorgi).

in southeast Queensland, as noted by Flood (Flood, 1999, p. 150). Other designs, based on parallel image interpretation, could also be interpreted as totems, vulvas and clouds. Non-figurative motives from rock art are repeated in ceremonial body art, as many such Aboriginal images are a form of communication and not exclusively used on walls, but have transferable meanings and presence beyond the static surface. The geometric style, by means of lines and geometric designs, has a level of interpretation only for initiated people. The majority of existing rock art in Australia that has a continuity of culture has many levels of understanding, as it is dependent on the level of initiation of the viewer as to how much knowledge they are taught by the initiated. At Chalawong this may also have been the case.

The meaning

It is a site established near a small water source, which is integral to the site's usage as a temporary shelter against the elements en route to the Bunya nut festival. As the site was most probably used apart from the festival period, it also had a transferable role and meaning to the society at the time. It appeared to be recording animal prints, pits, which could be ceremonial, or initiation or births, and marking or recording local totems. According to Aboriginal beliefs, all life as we know it today – human, animal, bird and fish – is part of a constant interconnected system, one vast network of relationships, which can be traced to the Great Spirit Ancestors of the dreamtime. Most art seems to be an integration and reinforcement of these concepts for the community. Memoryscapes[3] or oral histories can add to our understanding of a site but are not able to be recorded in the case of this site due to excessive time and cultural disruption. This does not allow for oral continuity. Similarly neither can the concept of preunderstanding (David, 2002) be applied with accuracy, on parallel cultural contexts of similar sites in the area. This being the case, there is still a meaning in the current community as indigenous groups attempt to reconnect and recreate memoryscapes to reinforce identity and cultural links that are embedded in Chalawong.

Thus Aboriginal connection to this site has been re-established in a different contemporary context despite the scant oral history evidence. However, the contemporary meaning is different and relates to the aim that 'archaeological documentation of heritage places must integrate a flexible model of representation to show change as an authentic expression of culture and to show that changing cultures create heritage as they go along' (Ross *et al.,* 2013, p. 222). Innovative

3 'Memoryscape' is a contemporary term used to describe the process of building on a location's cultural meaning by utilizing the known cultural context of similar locations to integrate the location's context into the current cultural constellation construct. (Ross *et al.,* 2013 vol. 76).

Fig. 3. Detail of far R/H side of the petroglyph panel at Chalawong. Far right-hand end of panel. (Photo by Marisa Giorgi).

recording techniques have been attempted to conserve the site in a cultural context in a web of associated focal points in the Prezi map, a 'digital mapping strategy recording the cultural and geographic features' (Jayden *et al.,* 2013, p. 233) of the area.

For whom was the message intended?

The art was produced to be viewed by the general members of the community, as the site was accessible and the excavated material supports the interpretation of communal use. Had it been in a remote or difficult to access location with no continuity of food remains then it could be deemed to be for restricted use or viewing. People in the local area and the people travelling to and from the Bunya nut festival viewed the art. So in essence different groups would have seen the images, made most probably by the local groups

The significance of the art is not known, but some of the symbols can be interpreted as animal prints; others as geometric symbols and some of the lines possibly representing rain. These types of designs are referred to as rain marks and are represented on Aboriginal bodies in the form of raised scars or cicatrices for ceremonial and decorative purposes (McCarthy, 1962, p. 17) and have been used contemporarily in the central Australian region, enabling some possible parallel interpretations of these symbols being used as ritual art. As trade and ceremonial routes traversed large areas of Australia, there was some degree of image transfer and it is also possible that the images were designed to reinforce cultural ties and the regional reinforcement of cultural expression for both local groups and those temporarily accessing the area.

Rock engravings are a form of symbolic behaviour and symbolic behaviour was not just a decorative embellishment of the system but a major means for social and economic control (Murphy, 1977; Munn, 1973). These were the multimedia tools of the time, the 'symbolic paraphernalia which could be distinctive or shared as an integral part of aboriginal society in Southeast Queensland and rock art was an integral component of this system' (Morwood, 1984, p. 91).

Chalawong's artistic message is strongly linked to this social system, as it was situated on a major pathway to the Bunya nut festival that was held in the Bunya Mountains and the Blackball Range. The largest remaining stand of bunya pines can be seen in the Bunya Mountains National Park 240 km northwest of Brisbane. The nuts are almond shaped and about 8 cm long, and grow in large cones of up to 10 km in weight. The trees fruit every year, but every three years there is a particularly abundant crop of the highly nutritious nuts, which could support large gatherings such as the Bunya nut festival[4]. There was population movement between groups and territories, for instance groups living 450 km apart came together for this occasion (Flood, 1999, p. 135). As 600–700 people were

4 Each tree was assigned a caretaker who was allowed to climb using vines and harvest the nuts (Flood, 1999, p. 135). Tree holds, cut by stone axe, were not permitted, but Bunya pines today show such markings, evidence perhaps of a later period when traditional law had broken down.

Fig. 4. Chalawong engraved panel.

attracted to this festival, it served a social, economic and spiritual role, as food and items were traded and shared[5]; kinship obligations were reinforced; disputes resolved; and songs, stories and dances were swapped between groups to be taken home to their own people. Importantly, the region also boasted a large number of ceremonial grounds such as the Gummingurru stone arrangements (used as initiation grounds), which were also en route to the triennial Bunya nut festival. This is indicative of the complex spiritual life in the region. It is also strategically located at an important node in the network of social and economic ties that characterized Aboriginal life in southeast Queensland.

Significant dates

There is a marked increase in both the number of archaeological sites in the region and in the intensity of use 4,000 years BP, as well as the spread of new tool types, the development of labour-intensive food processing, such as the large-scale processing of cycad nuts, and widespread changes in art systems. These changes in post-Pleistocene resource levels had economic, demographic and technological implications, resulting in changes in the development of Aboriginal society up until the arrival of the colonial settlements.

Chalawong is an example of a range of symbolic activity, but it is also able to yield evidence for changes in the nature and intensity of economic, technological and demographic change (Morwood, 1984, p. 88). The excavated evidence points to changes in climate as well as population pressure on macropod (such as kangaroos and wallabies) resources, resulting in a divergence to hunting arboreals such as gliders, possums and koalas. Tellingly none of the arboreal animal tracks are evident in the art.

Three radiocarbon dates from charcoal support the base occupation date and other estimates[6]. Of the 5,826 stone artefacts recorded, the majority dates at 3000–1000 BP. Excavated evidence suggests early minor use by small groups with limited tool maintenance, followed by more intensive use with a wider range of activities, the last 1,000 years showing changes in technology. The site usage in this later period almost doubled.

Given the integrated nature of subsistence settlement systems, there are likely to have been associated changes in other components such as group size, frequency of site occupation, duration of occupation and the inter-site distribution of activities[7]. These can result from

5 Marriages were arranged, and items such as possum skin rugs, hunting nets, dilly bags, shells, necklaces and weapons were exchanged.

6 1090+- 70 BP (Beta 5897) from the upper level of artefact concentration, 3030+- 90 BP (Beta 5898) at the base of the artefact concentration and 3820 +- 120 BP (Beta 15811) immediately above the bedrock (Morwood, 1984, p. 103).

7 Lilley (1984, p. 27) put forward the accepted model for many groups of subsistence settlement strategy that suggests that during winter groups aggregated near major rivers and lakes

socially determined elements as well as environmental causality.

Conclusion

As the only known petroglyph site in existence in southeast Queensland, it is necessary to highlight it both in the literature and in progressive site management plans.

It represents a continuity of rock art use with datable excavated cave remains. As such, the evidence indicates that patterns of change in southeast Queensland resource structure, technology, economy and symbolic behaviour were functionally related. . As illustrated, Chalawong cannot be seen as a site in isolation and is part of a network of neighbouring sites and resources. Chalawong is largely forgotten by local site management strategies, as attested by the lack of upkeep, funding and research of this site. Though a structure was created 17 years ago to minimize the impact on the soft rock surface, it has fallen into disrepair. Vibrations and dust from the transport trucks of a nearby mine are compromising the site's preservation as is the excessive vegetation growth which causes fire risk and possible abrasion damage. There are also human risk factors such as graffiti[8]. What is needed is to critically explore how the custodians can maximize their vested interest in the protection of petroglyphs and rock art in regard to identity, current cultural significance and economic interest from tourism.

Importantly the site still has significance and meaning for the local indigenous people, even though this meaning may have shifted through the lack of continuity of cultural knowledge. This being the case, the meaning of the site often highlighted by archaeologists seems to have less relevance to the current custodians than the contemporary context, but the relevance to the stakeholders is substantial. As such, Chalawong still has regional, artistic and cultural significance archaeologically and in the contemporary setting.

and during summer split up into smaller mobile groups along tributary streams in the foothills.

8 Quinnell (1972, p. 217). Evidence of illegal excavation activity was detected in 1969. There is also evidence of cows accessing the area (cow dung) despite the structure.

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A commemorative schematic iconography in the Neolithic period

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Presentation

In the Neolithic, graphic expression becomes schematic, whatever the base is. The realistic figure is transformed into just a sign (Cauvin, 1997; Guilaine, ed. 2003). The symbol invades the daily life of man from the decoration of its ceramic bowls to the motifs left on walls and rocks. The painted signs interest us more particularly here, but they represent only an aspect of the iconography of agropastoral communities of the Neolithic.

Elements of the relief are obviously supporting cultural content through paintings in southern France during the fourth and third millennia BC. They become cultural because they are covered with signs. They are big and deep shelters with signs in under different forms. Five signs share the main part of the iconographic corpus: male figures, animals (particularly the deer) transformed into comb-shaped signs, the "idol" that is often present under the shape of an arch, sun-like signs and chevrons. These five signs can adopt uncountable graphic versions. By themselves, they represent 90–95% of the iconographic corpus. Other figures are often specific to a site and are simple additions to the five signs that we have enumerated.

The theme is more difficult to perceive. It is connected to the location of each sign on its base, their direction of reading and their association with other figures. This association is ensured by the juxtaposition or contraction of two signs. However, the combination of signs is essentially the association of a sign representing a living being (man, animal, idol) with a sun-like sign or a chevron sign. For that reason, we make the hypothesis that these sun-like signs and chevrons are value-added signs. When they are present beside a living being, they indicate its status. One of the most widespread combinations of signs consists of the duplication of the living being where one of them is accompanied by a value-added sign and the other one is not. The imperfect doublings can also take other forms: a male character is in a straight position and the second one is in an inverted position (fig. 1), or a male character is tall and the second one is small (fig. 2), for example.

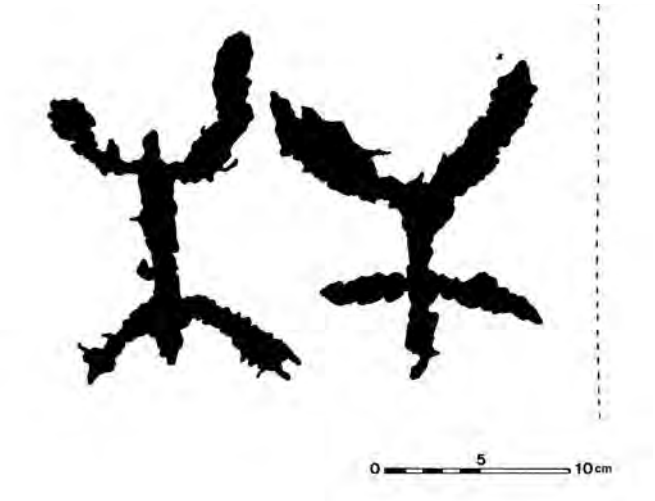

Fig. 1. An imperfect doubling: two male figures. The right one is in inverted position.

The geographical context

Thus, agropastoral communities of the middle and final Neolithic chose which shelters would support paintings from a multitude of potential sites (fig. 3). These sites are located far away from zones frequented in daily life for farming and pastoralism. They are rarely frequented but they are known by their visitors, who practise hunting, the collection of materials and foodstuff and the burial of the dead in these distant areas. Indeed, these sites are located at natural limits of the territories, in the interface of contrasting zones (between plain and plateau), in the same way as dolmens and other burial sites perform the role of demarcation, a fact that we have often underlined. To paraphrase Van Gennep (1995, p. 151), these territories which join settlements, sepulchral places and decorated shelters acquire their symbolic value. The numbers of these shelters seem to correspond to the length of the period of strong and durable territorial establishment of the peasant communities. These communities make natural elements of the landscape into shelters in order to mark out their territories. They also built megalithic constructions at the boundaries.

These shelters are revealed to men thanks to their particular topology. Four criteria determine their choice. They have to be in dominant position, they must look

Fig. 2. An imperfect doubling: two male figures. The tallest one has its arm up. Inside this arm is another smaller male figure.

southwards, their walls have to be of a red to orange tint and flowing water has to appear periodically. They often have an unusual configuration. They can have sound concretions, be threaded with narrow galleries, etc. They integrate a remarkable environment where there are exceptional mineral forms: landscapes, suspended arches, dolomitic excrescences, etc. The natural architecture of these shelters becomes a symbolic architecture (Hameau, 2006; Hameau and Painaud, 2009).

Rites of passage

The sites considered are certainly within the framework of rites of passage. This hypothesis leans on the conceptual data established by Van Gennep (1981), on the data of the topography of the sites and on the analysis of the material found at the feet of the painted walls. The hypothesis of Van Gennep is a universal operating concept: any change of status of an individual is accomplished according to a tripartite rhythm. The first stage, called pre-liminal, consists in the separation from the social group of origin. The second one, called liminal, places the individual in a transitional period and space: during a longer or shorter period of time, he is a novice without status, he belongs to a *communitas,* as Turner (1969) writes. The third stage, or post-liminal, equates reintegration in a new social group with a status different from before the rite. The symbolic importance of the median phase is the most collectively accepted element because it is the moment when the physical and/or social transformations of the individuals take place. However, these transformations can be accomplished only in a particular spatial context, which was specifically demonstrated by Van Gennep. Rites of passage are carried out at very concrete thresholds.

Yet the shelters with paintings are accessible through a more or less long approach through an exceptional mineral landscape. This is made of rocks which it is necessary to follow, by-pass and climb. In certain cases, there is only a single itinerary to reach the site. So, the initiate follows a route marked by the crossing of more or less tangible thresholds: narrow gorges, river crossings, rocky excrescences, etc. These thresholds are at the same time the symbol and the vehicle of the passage. On the site, the isolation of the individuals is even more important and tests await them in numerous cases: crawling in the dark, climbing a ladder, crossing a high cliff road, etc. The body and the spirit are subjectivized by the space, its narrowness, its suspended position, its water flows, its sun exposure or its dark and cold atmosphere.

The shelters received much material other than paintings. The archaeology is sometimes plentiful and specific enough to date when people were at these places. However, this material gives evidence of limited frequenting of the shelters even if repetitive over several centuries. All the categories of objects known in settlements are not found there: no big culinary or storage containers, no grindstones, for example. The siliceous materials which are brought are often of poor quality and are often awkwardly debited. Two sites have delivered arrowheads made in situ but unusable for the most part. Numerous lithic pieces show the stigmata of singeing by a violent fire of which we have no trace on the site. The remains of fauna of one of the sites evoke sacrifices of domestic animals, sheep and goats (Hameau, 2009). These various movable testimonies indicate that the decoration of the shelters' walls was not the only purpose of using the places . We here

Fig. 3. The shelter of Eissartènes (Le Val, Var): a large site with walls painted in orange.

speak more of marked than decorated sites. The signs left on the wall are only one of the proofs of short visits.

It seems that the individuals frequented the sites punctually. They were reclusive, had no views because far from settlements, in a liminal stage and submitted to tests. Apparently, among these unusual technical tests was the hard flaking of flint or shaping arrowheads. Moreover, it was not necessary for the individuals to know how or not to flake the siliceous materials: "We often try to transform the human beings into what they already are" (Wulf, 2005, p. 16).

Selective writing

This kind of practice turns around the concept of passing and processing. The physical passing of the men through these shelters, selected according to precise parameters, ensures their social transformation. They become individuals with a new status. Yet these individuals took advantage of their passing by the site to mark the wall and to draw signs there, in particular anthropomorphic figures.

We have said that the examples of the most recurring groups of signs are the imperfect doubling of the male figure: a sun-like sign or a chevron accompanies the first anthropomorphic sign but not the second one (fig. 4). The sun-like sign can be radiant or is a simple point. The chevron can be a real broken line or be only the sign V in an inverted position. Both located near certain characters seem to act as determiners. If the sun-like sign and the chevron are value-added signs, then they can mean the new status of the individuals within the context of transition rites and social processing. In this case, the imperfect doubling would be only a commemorative representation: the demonstration by the iconography of their transformation while passing through the site. It would be the testimony of what justifies the choice and the implementation of these shelters, the frequenting of the site and the submission of the visitors to certain physical and moral tests.

Fig. 4. An imperfect doubling: two lozenge-shaped anthropomorphic signs. The right one has points and is the taller of the two.

The fact of passing from the physical context of the initiation to the concept of passing and processing allows us to explain that the value-added signs do not concern only the representation of male figures. Other living beings as animals and the idol also pass and are transformed. The idol is divided into two halves. They are also presented on walls under imperfect doublings. So the iconographic corpus of the Neolithic period in southern France allows us to give evidence for the homology of physical and social processing among man, animals and the idol. Therefore, the corpus can be considered as selective writing (Déléage, 2013) because it is almost exclusively intended to illustrate this concept.

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The cup-marked stones of Chalcatzingo, Morelos, Mexico, a multi-millennial tradition of inscribing the landscape

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The cup-marked stones of ancient Chalcatzingo have long been something of an enigma to archaeologists. Although boulders and rock-outcrops with cupulate markings are present throughout Mesoamerica (Urcid and Joyce, 2001; Weber and Strecker, 1980; Wolley, 2002), cup-marked stones appear with great abundance at Chalcatzingo. The latest reconnaissance at the site has revealed the existence of 39 cup-marked stones (Lambert, 2011c, pp. 141–2, table 5.1). Despite their ubiquity, surprisingly little has been published concerning these features until recently (Gay, 1971 - 1972; Grove, 1987; Krupp, 1994; Lambert, 2010; 2011a; 2011b; 2011c). This is unfortunate given their potential to expand our knowledge of the cultural dynamics at play throughout the long history of Chalcatzingo. In an attempt to further our understanding of this important rock art tradition, the present paper will draw together the data relevant to further our understanding of the chronology, cultural affiliation and significance of these features.

Chalcatzingo is a large terraced village site nestled between two large granodiorite hills, Cerro Delgado and Cerro Chalcatzingo, jutting high above the relatively flat Amatzinac river valley of eastern Morelos (fig. 1). The village's built landscape is organized along a north–south axis (Grove, 1999, pp. 258–65). Many of the residential terraces are located on the northern periphery of the site, while most of the civic-ceremonial areas of the site are located to the south. This southern area includes the central plaza, the main platform mound, a sunken court with a throne/bench and Chalcazingo's famous Olmec-style rock carvings. These petroglyphs occur in two groups. The petroglyphs located on the western slopes of the Cerro Chalcatzingo are known as the 'Group A' rock carvings and feature a common theme relating the link between the underworld (symbolized by reptilian zoomorphs), rainfall and agricultural fertility. This group of carvings is connected to the ceremonial sections of the site by an artificial trench known as the El Rey drainage (Grove and Cyphers, 1987, pp. 32–3, 37–41). The second group of petroglyphs is situated to the east of the central plaza and on the northern slopes of Cerro

Fig.1. Cerro Delgado (left) and Cerro Chalcatzingo (right) rising above the Amatzinac Valley. (Photograph by the author).

Chalcatzingo. Even though they also feature rain and agricultural imagery, their primary focus seems to be on the representation of elites in the form of various animal alter-egos, especially jaguars, attacking bound or prone captives.

Fig. 2. Cup-marked stone 2-A-2 (Gay's Altar 2; Grove's MCR-26). (Photograph by the author).

While less well-known than the site's Olmec-style rock carvings, early scholars generally associated the cup-marked stones of Chalcatzingo with the site's contemporary Early to Middle Preclassic period (700–300 BC) occupations. As early as 1971, Carlo Gay called attention to the so-called 'altars' of Chalcatzingo as belonging to an extensive megalithic tradition associated with the Preclassic period (Olmec) societies of the Gulf Coast lowlands of southern Veracruz and Tabasco. Part of his rationale for this association was their relationship to the site's rock carvings as well as the correspondence between the cupules present on the otherwise unworked stones at Chalcatzingo and the pit and groove work found on some of the Olmec-style monuments of the Gulf Coast lowlands (Gay, 1971, pp. 69–71, 1972, pp. 83–4). Although David Grove was more careful about attributing the cup-marked stones to a regional tradition or even affiliating them with the Olmec-style monuments at Chalcatzingo, he nevertheless agreed with Gay regarding their chronological placement within the Middle Preclassic period (Grove, 1987:, p. 166). In a previous publication, this author has argued for a more nuanced view of both the chronological positioning and the cultural affiliation of Chalcatzingo's cup-marked stones (Lambert, 2010).

Based on a comprehensive survey of the site's cup-marked stones, it has become possible to identify three distinctive cupulate complexes consisting of cup-marks with distinctive morphologies and dimensions (Lambert, 2010, pp. 184–6). The cup-marked stones belonging to these complexes also demonstrated marked differences in their placement throughout the site and in the nature of their archaeological associations; suggesting that they had a different chronological position as well. Cup-marked stones belonging to the cylindrical complex contain single cupules, clusters of cupules, or linear arrangements of cupules with a deep cylindrical profile and a rounded or oblong aperture (fig. 2). These features were associated primarily with areas of activity dating from the Middle Preclassic period (700–300 BC) to the Middle Classic period (AD 300–650), such as the Olmec-style rock carvings, the El Rey drainage, the central plaza, the summit of Cerro Chalcatzingo and two terraces on the site's western periphery. The stone identified with the pit and groove complex had small cupules connected by grooves in a manner similar to the pecked cross petroglyphs of the Middle Classic period (AD 300–650) (Aveni and Hartung, 1982; Lambert, 2011b). By contrast, the cup-marked stones belonging to the hemispheric complex consist of clusters of cupules with a shallow, hemispheric profile and a rounded aperture. These were primarily found near a Middle Postclassic period (AD 1300–1400) shrine built near the Group B rock carvings (Lambert, 2011a; Martín Arana, 1987).

According to Gay (1972, p. 84), the shape and

Fig. 3. Cup-marked stone 4-A-1 (Grove's MCR-19). (Photograph by the author).

orientation of the cup-marked stones and their (cylindrical) cupulate markings suggested that they were probably used for propitiatory rituals involving some kind of sacred liquid. The idea that these features had a ceremonial purpose was also espoused by Grove (1987, p. 167). Notwithstanding the above-mentioned interpretations, the diverse contexts of Chalcatzingo's cup-marked stones suggest that they may have had many possible functions and a wide array of meanings. A number of alternative interpretations have been advanced to account for cup-marks in ancient Mesoamerica. Grove argued that they may have played a role in monument mutilation in the Gulf Coast lowlands (1981, p. 50). However, there is no evidence for the iconoclastic use of cupules on the monuments and rock carvings of Chalcatzingo. Following a very different line of reasoning, several scholars have asserted the possibility that cupulate markings may have been part of a pan-Mesoamerican system of record-keeping (Sedat, 1992, p. 84; Sharer and Sedat, 1987, p. 366). While this may be the case for complex clusters of cup-marks, such as those that occur in the Salama Valley in Guatemala (Sedat, 1992, pp. 82–4), most of the cylindrical cupules at Chalcatzingo occur singly on boulders, thereby lessening the utility of this interpretation. Another approach focuses on the archaeological contexts of the cup-marks as a clue to their purpose.

As was mentioned previously, the cup-marked stones of Chalcatzingo occur in three distinct complexes with different chronological positions and cultural affiliations. The cylindrical cupules, for instance, are intimately connected with the Preclassic period (Olmec) rock carvings, the El Rey drainage and the terraces on the western periphery of the site (Lambert, 2010; 2011c). In these areas, the presence of a ritual water management system and petroglyphs relating rainfall and agricultural fertility to the underworld provide a sense that the cupules were not only used as ritual containers but were deployed as expressions of the mythic narratives underlying the construction of these other features. With the commencement of the Middle Classic period, pit and groove work (i.e. the pecked cross petroglyph) appeared at the site,

Fig. 4. Cup-marked stone 1-B-4. (Photograph by the author).

where it seems to have served as a marker in a system of placement and orientation for structures associated with a Teotihuacano presence at the site (Grove, 1987, p. 166) (fig. 3). By the Middle Postclassic period, a new tradition for inscribing the landscape was developed in association with the creation of a shrine. While this shrine appears to have re-purposed some of the Olmec-style rock carvings from Group B, the cup-marked stones around the shrine were carved with clusters of cupules mimicking the abstract floral and geometric designs which occur on Mexica ceramics and architecture (Pasztory, 1983, pp. 80, 292–9) (fig. 4).

The currently available evidence suggests that the cup-marked stones of Chalcatzingo were part of a multi-millennial tradition of inscribing the landscape that began during the Middle Preclassic period (700–300 BC) and continued through the Middle Classic period (AD 300–650), only to reappear during the Middle Postclassic period (AD 1300–1400). The nature and significance of this rock art changed over time, based on which population was using the cupulate markings. The cylindrical cupules in use from the Middle Preclassic to the Middle Classic periods were first associated with Olmec rock carvings relaying the mythical origins of agricultural fertility, and then a ritual water management system, implying a strong connection with these aquatic myths and rituals. The Middle Classic period pit and groove work was more closely associated with the Teotihuacano presence at Chalcatzingo and seems to have had a more practical function in helping to orient new buildings. Finally, the Middle Postclassic period hemispheric cupules seem to have been strictly associated with a Mexica shrine built to re-purpose some of the more ancient monuments at the site, and their imagery was therefore part of an attempt to create a sacred landscape. To summarize, the data suggest that rather than serve as a precursor to glyphic writing, as was proposed by Sharer and Sedat (1987; Sedat, 1992), the cup-marked stones of Chalcatzingo were tied into culture-specific mythical, technological and aesthetic practices that changed significantly over time. As such, this rock art tradition offers a view of the cultural biography of the site which is complementary with coeval written inscriptions and artistic styles.

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The olmec-style rock paintings of Oxtotitlàn Cave: new insights and interpretations

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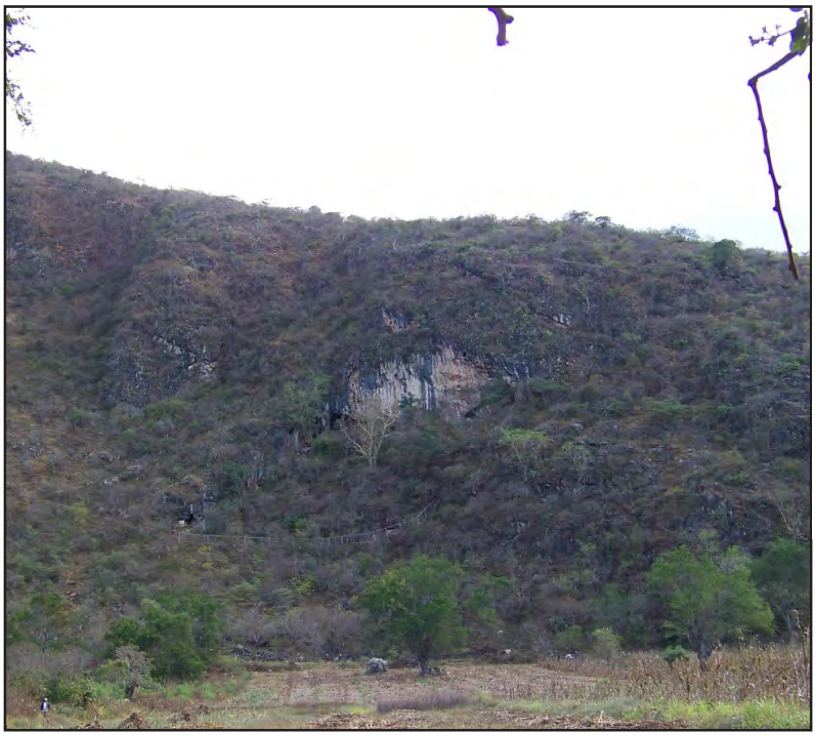
The rock paintings of Oxtotitl**á**n Cave in eastern Guerrero, Mexico have been known to archaeologists for almost 50 years. Located near the town of Acatl**á**n and to the north of the city of Chilapa de Álaverz, the cave overlooks a small valley. Oxtotitl**á**n consists of a shallow cave divided into two grottos (fig. 1). The northern grotto contains over a dozen black paintings, most in the Olmec art style of the Early-to-Middle Preclassic period (800–500 BC) (Foncerrada de Molina, 1972). The southern grotto, by contrast, is characterized by a series of painted panels featuring a palimpsest of red-coloured pictographs. Although some of the red paintings correspond to Preclassic period and Classic period symbols, most are geometric figures that are not attributable to any specific historical period. In addition, both grottos contain negative hand prints of the kind found in caves throughout Mexico; while the exterior cave walls situated around and above the grottos contain two polychromatic murals also executed in the Olmec style.

The rock paintings of Oxtotitlán Cave were formally studied by David Grove in 1968 and in 1969. He later produced a report under the auspices of both the Instituto Nacional de Antropología e Historia and the Dumbarton Oaks Center for Pre-Columbian Studies (Grove, 1970a; 1970b). Although a few new rock paintings have been found or re-documented since its publication (Lambert, 2012; Schnell, 1990), Grove's monograph provided the first and only comprehensive survey of the site's rock art. Since Grove's initial study (1970b, p. 33), the cave has been interpreted as an isolated cult site or pilgrimage centre dedicated to agricultural fertility (Delhalle and Luykx, 1984; Niederberger, 2002; Schmidt Schoenberg, 2007/2008). A number of recent studies by Paul Schmidt Schoenberg (2003; 2005), however, indicate that the cave was not a remote sacred site. Rather, it formed part of a large occupation zone



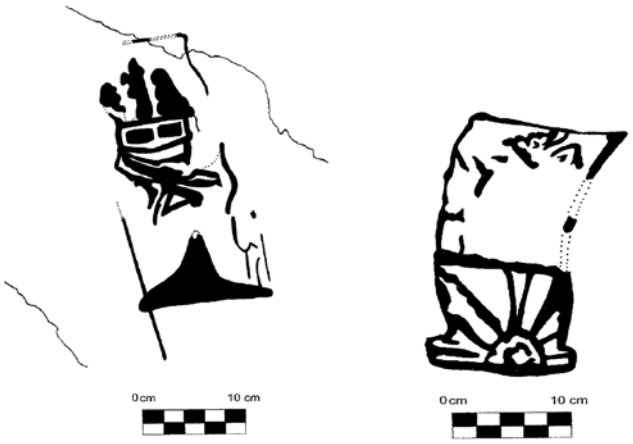


Fig. 1. Left. Oxtotitlán Mural 1. (Photograph by the author).

Fig. 2. Right. Oxtotitlán Painting 10 (left) and Oxtotitlán Painting 11 (right). (Scaled drawings by the author).

encompassing agricultural communities in both the valley and the nearby mountain, Cerro Quiotepec. The local ceramic wares (e.g. Blanco Granular pottery) from Cerro Quiotepec have affirmed the Early-to-Middle Preclassic period chronology for the site and the Olmec-style cave paintings (Schmidt Schoenberg, 2007/2008:, pp. 285–6). However, the existence of Aztec III ceramics at Cerro Quiotepec shows that the site was occupied through the Late Postclassic period (1450–1520 AD) (2007/2008: 283, fig. 5). Along with the presence of a cave painting depicting the Postclassic period rain god, Tlaloc (Grove, 1970b, p. 26), this evidence suggests that the cave maintained its sacred character over many centuries. In addition, the author's studies of the cave's paintings have shown that the Preclassic-period lords of Cerro Quiotepec may have used the cave in rituals of rulership, thereby increasing the importance of this cave for understanding the social and political practices which took place in the Preclassic period communities of Guerrero (Lambert, 2013a, 2013b).

The images, motifs and symbols used in the cave paintings indicate that at least four different groups may have been relevant to such political rituals. The first group consists of the painted murals. Although Mural 2 has all but eroded away, Mural 1 is visible from the valley floor and offers an imposing view of the grandiosity and power of the local lords as one climbs closer to the cave (fig. 2). Showcasing a man dressed in a ritual costume decorated with the wings and head of an eagle, Mural 1 depicts the seated lord on an animal-shaped throne strikingly similar to the throne sculptures of the Gulf Coast Olmec metropolitan zones of San Lorenzo Tenochtitlán in Veracruz and La Venta in Tabasco (Grove, 1973).

The second group of Olmec-style rock paintings is found on the northern end of the north grotto and consists of six self-contained pictographs, that is, the five small black paintings which make-up the Painting 1 cluster (Paintings 1-a through 1-e) and Painting 3 (fig. 3). Based on a comparison with both Late Formative period and Early Classic period (500 BC–AD 400) Zapotec glyphs for day-names in the sacred 260-day calendar, Lambert identified these six cave paintings as possible calendrical glyphs representing day names such as 'jaguar', 'flower' or 'lord' (fig. 3a), 'alligator' (fig. 3b) and 'serpent' (fig. 3c) (2013a, p. 13). Although not all of the pictographs had numerical coefficients, their imagery closely resembled Zapotec day-signs from Monte Albán, alluding to their use as calendrical names for different rulers who may have visited the cave.

Located on the southern end of the north grotto, a third group of Olmec-style paintings may also hold important insights on the significance of the cave (Grove, 1970b, pp. 20–1; Lambert, 2012, pp. 21–

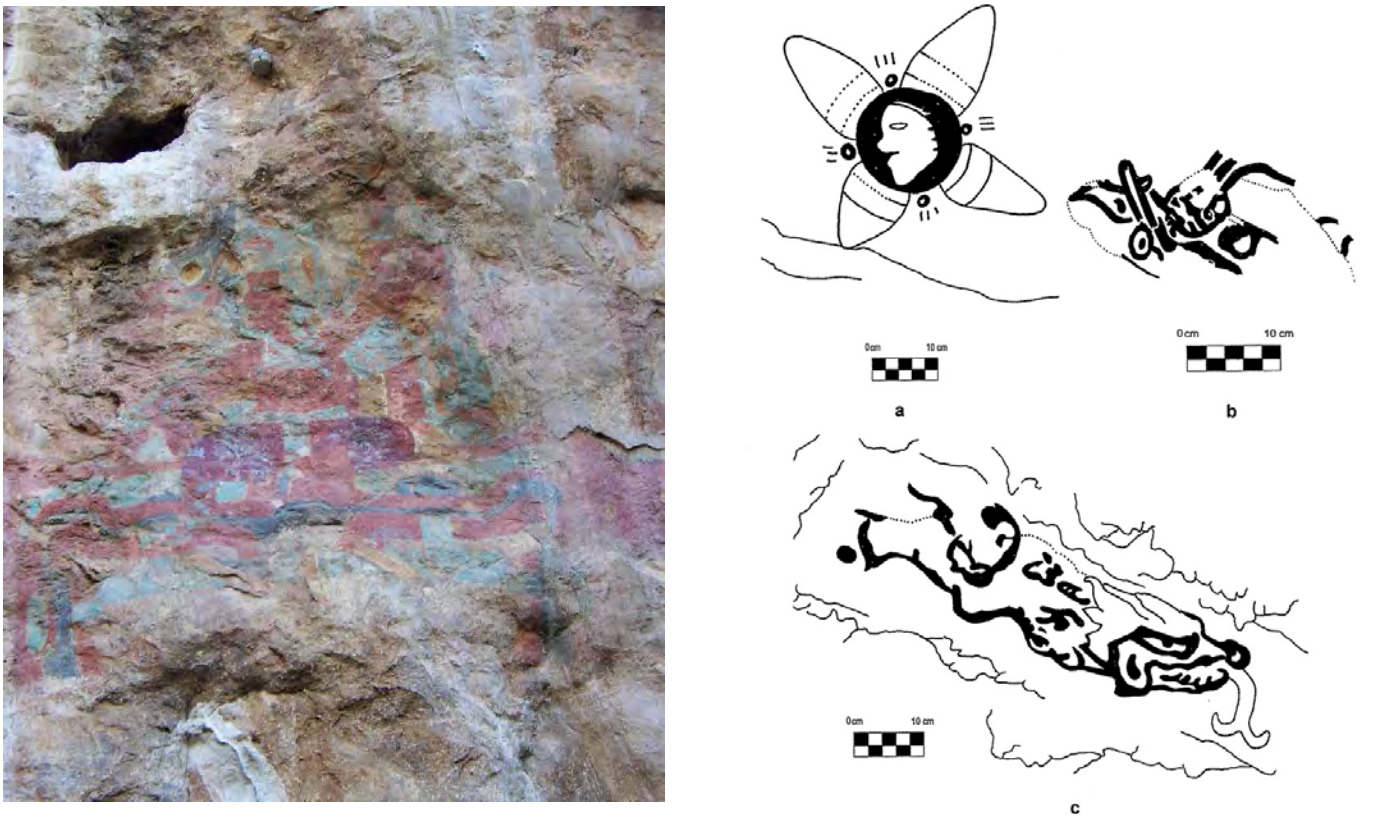


Fig. 3. Oxtotitlán Cave, Guerrero, Mexico. Photo and tracings. Olmec-style cave paintings from the North Grotto of Oxtotitlán Cave: (a) Oxtotitlán Painting 1-a; (b) Oxtotitlán Painting 1-b; and (c) Oxtotitlán Painting 1-c. (Photo and scaled drawings by the author).

2). Composed of Paintings 4, 6, 10 and 11 (fig. 4), the pictographs in this group appear to share the geometric and vegetal designs, especially the trefoil motif, found in depictions of 'maize bundles' in the San Miguel Amuco stela from Guerrero and the Xoc rock carving from Chiapas (Taube, 2000). The combination of geometric designs, vegetal designs and anthropomorphic features found in Paintings 6 and 10 may also have cognates among the celtiform stelae of La Venta which represent the so-called Olmec maize god. Such close correspondences with Olmec monumental sculpture strongly argue for interpreting this group of rock paintings as symbols linking notions of rulership with sacred propositions regarding maize agriculture.

Finally, the fourth group of Olmec-style paintings at Oxtotitlán consists of a few red paintings from the South Grotto of the cave, Painting A-1 and possibly Painting A-2 (Grove, 1970b, p. 25). While the kneeling posture of the outlined figure in Painting A-2 is also seen in some sculptural depictions of rulers from the Formative-period Pacific Coast region of Guatemala and Chiapas, Painting A-1 provides a much better window into the use of Olmec-style art and writing at Oxtotitlán. This pictograph consists of at least three, possibly four, different images consisting of badly eroded geometric and comb-like designs placed on top of a floral motif and a scroll (Lambert, 2013b:, p. 18). These motifs are comparable with Formative-period place-signs found on greenstone objects from other parts of Guerrero, including an incised tablet from Ahuelican. Given the continuity of place-signs throughout northern Mesoamerica, an attempt was made to compare the toponym from Oxtotitlán with known Classic and Postclassic period place-names. The closest approximation of the place-sign in Painting A-1 was for Quiotepec or the mountain of maguey flowers, the large hill which overlooks Oxtotitlán across a narrow valley (Schmidt Schoenberg, 2007/2008, p. 279).

These new observations suggest that the painted cave of Oxtotitlán was not simply a cult site used to ensure agricultural fertility and abundant rainfall during the Early-to-Middle Preclassic period (800–500 BC). Rather, it appears to have been used as a location where the lords of Cerro Quiotepec expressed their right to rule through the rock art. The presence

of hieroglyphic writing in the rock paintings of Oxtotitlán, including a toponym and several possible calendrical glyphs, along with probable renditions of maize bundles and a large polychrome mural showing an elite figure in ritual attire opens the possibility that there may have been a significant historical and political dimension to the rituals enacted in the cave. Such rituals of rulership may have involved the recitation of origin myths and dynastic histories. They may have also been used to record the accession of new lords and to describe the places over which they held dominion. This new interpretation further suggests that the Olmec-style rock art of Oxtotitlán Cave and similar cave sites in eastern Guerrero, such as Juxtlahuaca and Cauadzidziqui, provide evidence of the dynamic strategies mobilized by Preclassic-period rulers to augment their social position relative to other individuals competing for power and prestige in these Preclassic-period communities. The painted caves of eastern Guerrero should, therefore, not only be seen as sacred sites but also as loci of symbolic conflict and political competition.

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San Rock Art

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The southern African hunter-gatherer San (Bushmen) are renowned worldwide for their rock art. But they are not the only people who made rock art in the subcontinent. Khoekhoe sheep and cattle pastoralists, who like the San spoke a click language, made finger-painted images, while the Bantu-speaking agriculturalists (e.g. the Sotho and the Nguni) made finger-painted images today generally known as 'late whites'. It is, however, the San images that are the most common throughout southern Africa; indeed, it is estimated that there are 14,000 known, though not studied, sites. It is likely that another 14,000 await discovery.

These numbers include paintings, generally but not exclusively confined to the mountainous escarpment, and engravings made by pecking, incising and scraping that are found virtually exclusively on the central plateau. The paintings were made in shallow rock shelters, while the engravings were made on open rocks largely on hilltops or, occasionally, on ancient glacial pavements now exposed along riverbeds. By and large, San paintings have been more researched than the engravings, and it is on them that this article concentrates.

One of the reasons why San paintings have been so intensively studied is that nineteenth- and twentieth-century San ethnography relates in greater detail to them than to the engravings. It is this ethnography that allows us to ask: when, why and to whom?

When?

Rock art is notoriously difficult to date. The oldest date for imagery in southern Africa comes from an excavation in a rock shelter on the southern Cape coast that is known as Blombos. Two pieces of ochre were found to be engraved with a series of crosses. By using carbon from the layers both above and below the finds, researchers have dated the pieces to over 70,000 years BCE. Found along with ochre and shell beads, they point to fully modern human behaviour. Before that discovery was made the oldest date (27,000 BCE) was for pieces of painted stone, probably detached from the rock shelter wall, that were excavated in the Apollo 11 shelter in southern Namibia.

It is difficult to ascribe these very ancient pieces to the people known today as San. By contrast, the art presently preserved on the walls of open rock shelters can confidently be said to have been made by the

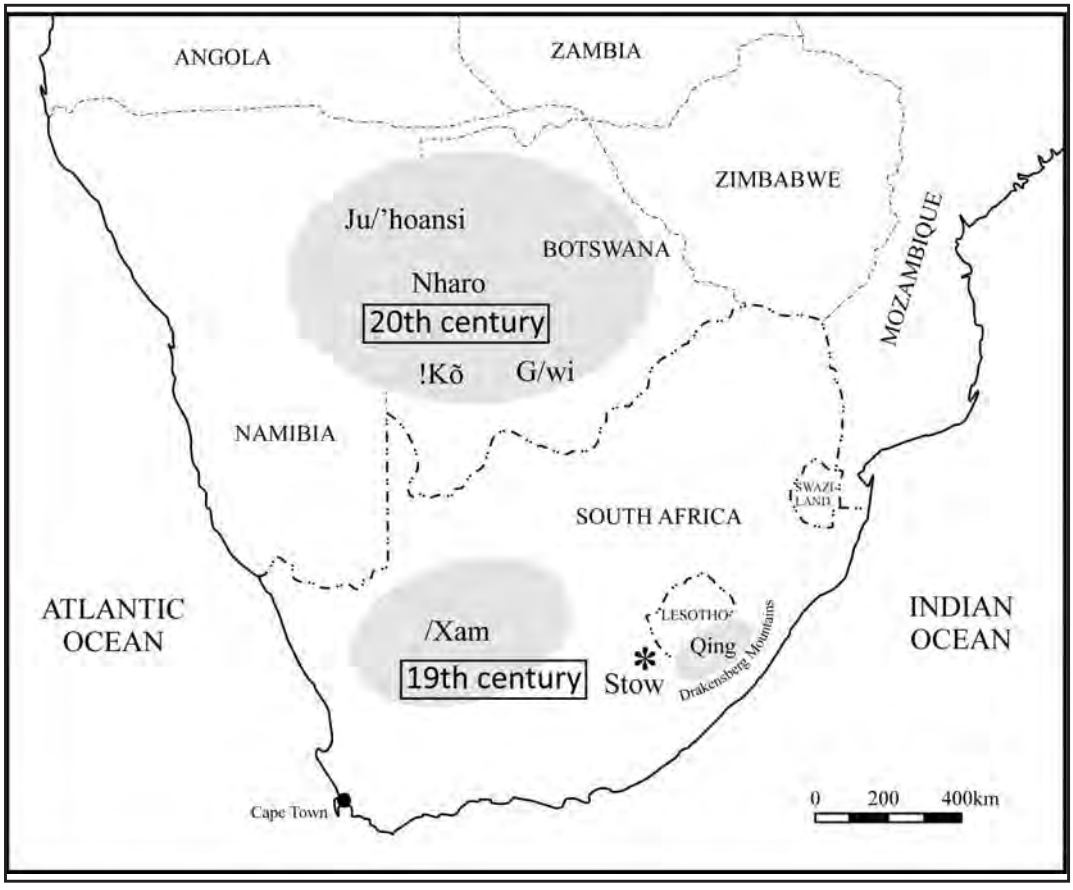

Fig. 1. Map of southern Africa showing places and peoples mentioned in this article.

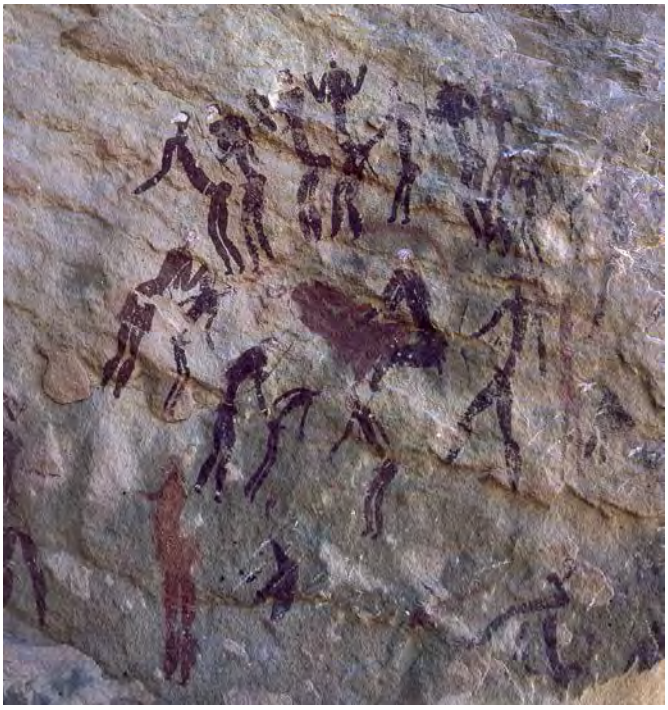

Fig. 2. San rock painting of a circular trance dance. In the centre a shaman bends over a person whom he is curing by the laying on of hands.

San and their ancestors. We have radio-carbon dates for Drakensberg paintings that go back ±3,000 years (Lewis-Williams and Pearce, 2004).

Why?

Because we have relevant ethnography, we can begin to answer what is perhaps the most frequently asked question – why? San ethnography constitutes a linguistic, temporal and geographical mosaic, not a single, monolithic body of evidence (fig. 1). The San themselves speak a number of largely mutually unintelligible languages and live, or have lived, in environments that range from the well-watered escarpment to the semi-arid interior that, in the north, is known as the Kalahari Desert.

The oldest ethnography is the 1870s Wilhelm Bleek and Lucy Lloyd Archive of /Xam myths, life histories, and accounts of rituals and daily life. These two researchers complied approximately 12,000 pages of phonetically recorded and translated texts in the now-extinct /Xam San language. In the face of the expanding colonial frontier the traditional /Xam way of life ceased to exist in the second half of the nineteenth century. On the other hand, the San who still live to the north in the Kalahari, such as the Ju/'hoansi (!Kung) and the G/wi, have become one of the best known hunter-gatherer peoples. Today the South African post-apartheid national motto is in the /Xam language.

Anthropologists who have meticulously compared these bodies of evidence have concluded that, although there is much variation between San groups, religion is, in its fundamentals, largely pan-San. For instance, the anthropologist Alan Barnard (2007, p. 96) concludes that 'religion is far more uniform throughout Bushman and even Khoisan southern Africa than are material aspects of culture and society'. Point-by-point comparisons of rituals confirm this view. While the sources should not be indiscriminately combined, the Kalahari ethnographies can be used to complement and supplement the nineteenth-century texts not randomly but in those specific areas of belief and ritual where parallels can be empirically demonstrated

Among those parallels is the frequently performed San trance dance. Mathias Guenther, another anthropologist, concludes: 'The fact that trance dances are described by all writers who have visited the Bushmen, even nineteenth-century ones, further attests to the ubiquity and antiquity of this key Bushman ritual… [The trance dance is] the central ritual of Bushman religion and its defining institution' (1999, p. 181). This is not a broad, superficial overview, a vague generalization. It is founded on the empirical study of specifics.

The San trance dance has been described many times (e.g. Katz, 1982). Very briefly, the women sit around a central fire and clap and sing 'medicine songs' believed to contain supernatural potency, known to the Ju/'hoansi as *n/om*. The men, half of whom at any given time may be ritual specialists (shamans, healers or 'medicine people'), dance in a circle around the women, now clockwise, now anti-clockwise. About 10 per cent of the women become healers. Without recourse to hallucinogens, some of the ritual specialists enter a frenzied trance induced by rhythmic movement, hyperventilation and intense concentration. Those who have learned to control their level of trance move around laying hands on all present to remove sickness, perceived or unperceived, from their bodies. In trance and in dreams, San ritual specialists go on out-of-body travel to protect their people from malevolent spirits.

The images probably had many meanings: some writers

have argued convincingly for a gender theme for some of the art in the northern parts of South Africa. But it is only when we acknowledge the San's own emphasis on the trance dance that clear and detailed links begin to appear (fig. 2). The folklorist and anthropologist Megan Biesele (1993, p. 70), who is fluent in the Ju/'hoan language, notes that 'the central religious experiences of Ju/'hoan life are consciously and, as a matter of course, approached through the avenue of trance'. As with the ethnographic texts themselves, we must work point by point, not by bland generalizations that are thinly disguised Western perspectives on 'art' (Lewis-Williams, 1981; Lewis-Williams and Pearce, 2004; Lewis-Williams and Challis, 2011).

For instance, dancers are frequently painted in distinctive postures that can still be observed in the Kalahari. They are often depicted bending forward at an acute angle and supporting their weight on one or two dancing sticks, as San trancers do when their diaphragm muscles painfully contract. Others hold their arms in a distinctive backward position that Ju/'hoan shamans have said some dancers adopt when they ask god for more potency. In the painted panels, dancers appear in circular or scattered groups, in lines that are sometimes called processions, or singly and seemingly unrelated to adjacent images.

Sometimes dancing figures are accompanied by seated, clapping women with their fingers splayed. Like the dancers themselves, these clapping figures appear in multi-component dance scenes but also occasionally scattered separately in complex panels. Trance dance songs, sung and rhythmically accompanied by clapping women, contain the potency that the men harness to enter the spirit realm. Clapping figures therefore signify the activation of potency.

Blood is frequently depicted falling from the noses of dancers and sometimes from the noses of isolated standing, walking or running figures. Nasal bleeding is a San physiological reaction to trance. This feature places the relevant figures together with their sometimes less explicitly painted companions in the domain of supernatural contact and experience. Blood

Fig. 3. San rock painting of many elands, the antelope richest in meaning.

also sometimes falls from the noses of supernatural and natural animals and part-human, part-animal creatures.

The multitudinous depictions of eland antelope point not only to abundant food but also to all the ramifications of San eland creation myths (fig. 3). Tighter focus is often provided by painted contexts: people, some transformed, shown dancing next to eland recall the San practice of absorbing the potency that is released by dying eland. Many images show eland in dying postures.

Therianthropic figures are a well known feature of San rock art. Their largely human bodies often have an antelope head and, less frequently, hoofs. These images have been thought to depict spirits of the dead, but other features of them suggest rather that they depict shamans (living or dead) partially transformed into animals (fig. 4). Many bleed from the nose. In addition, many have their arms in the backward or extended position that is characteristic of the trance dance. Some wear long karosses (cloaks), which were in some circumstances associated with shamans.

Depictions of leather bags sometimes appear singly among seemingly unrelated images; they are not whimsically selected items of daily use. Certain myths show that bags were associated with transformation and supernatural potency.

Flywhisks are used by the San only in trance dances. In the early 1960s Richard Lee found that, among the Ju/'hoansi dancers, flywhisks were 'indispensable' (Lee, 1967, p. 31). A Kalahari shaman usually has only one flywhisk, but some painted human figures are shown with unrealistically numerous flywhisks. They are also depicted in isolation, and, occasionally, in isolated bunches.

Rain-animals, the imaginary quadrupeds that southern San shamans of the rain captured, led across the countryside and then killed (or milked) to make rain are also depicted. Frequently, they are being led or driven by shamans. Sometimes they are shown wounded or being killed. Snakes with antelope heads are also probably rain-creatures.

Meandering red lines, often fringed with small white dots, sometimes weave through complex panels of many images, especially in the south-east mountains (Drakensberg). Variations of the form are known. Sometimes shamans are shown walking or dancing along the lines. They are almost certainly the threads of light that San shamans routinely report seeing in their trance states. They probably facilitated shamans' access to the spirit realm.

One of the most significant features is that some images (often but not exclusively threads of light' are painted to give the impression that they are entering and leaving the rock face via cracks, steps or other inequalities. For the San, the rock face was not a meaningless *tabula rasa* on which artists could paint whatever took their fancy, but rather a deeply meaningful and contextualizing veil between material and supernatural realms. Consequently, whatever they painted on the rock face was set in a spiritual context. Here we have the answer to our 'why' question: the artists were intent on constructing cumulatively

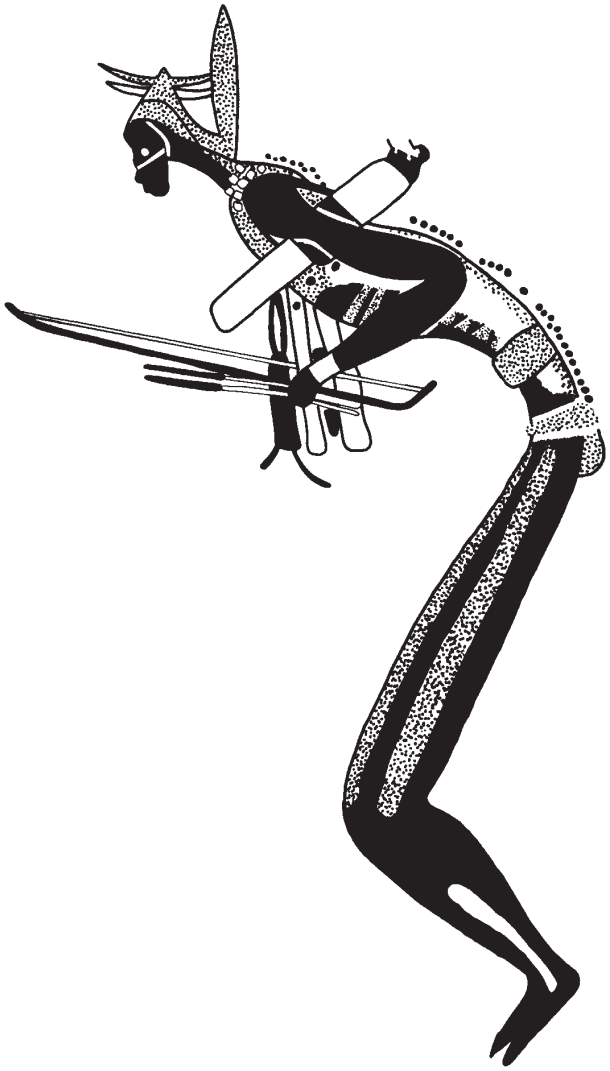

Fig. 4. San rock painting of a transformed shaman. The dots along his spine represent the 'boiling' of his potency.

complex and powerful spiritual panoramas. The images clearly add up and play into one another. They also pose our final question.

To whom?

Because the placing of the images on walls of rock shelters in which people frequently lived brought the spirit realm into the public domain, we need to understand not only the fundamental essence of San religious experience but also the ways in which San people shared – and, in the Kalahari Desert, still share – religious beliefs. Here, we can distinguish two levels of knowledge generation: communal understanding of religious belief and individuals' contributions to that understanding.

Images were added to panels over time and probably by numerous painters. To understand the pattern that they were building up we need to appreciate San religious beliefs and the way in which beliefs accumulated. It is here that we find clues for the way in which panels accumulated.

For the San, new insights into spiritual matters come principally through shamans' reports. In the Kalahari today, shamans recount their experiences. Everyone listens attentively. Every account is taken as accurate, even if, in the view of an outsider, it appears to contradict others. There is a pooling of religious experience. Shared beliefs are thus an amalgam of many shamanic forays into the spirit world that builds up over the passing years.

For many years, Biesele has studied in considerable detail the importance of Ju/'hoan shamans' experiences. She found that subsequent versions of what happened during a specific religious revelation (such as the gift of a new medicine song imbued with potency) may vary as people remember and talk about the occasion. But what does not vary is the understanding that those believed to have received the revelation were 'experiencing some sort of altered state of consciousness at the time … Though dreams may happen at any time, the central religious experiences of Ju/'hoan life are consciously and, as a matter of course, approached through the avenue of trance' (Biesele 1993, p. 70).

How do potentially idiosyncratic, individual experiences of altered consciousness enter and become part of tradition? In answering this question, Biesele makes a point that throws considerable light on San rock art:

Part of the answer lies in the fact that [trance] experience itself is, from an early age, already culturally informed and mediated. Initiates have certain experiences in trance because they expect to do so, basing their expectations on other accounts they have heard. A high degree of stereotyping is present in the verbal accounts of travels beyond the self which are made after a night's trancing. Yet the Ju/'hoansi themselves treat these experiences as unique messages from the beyond, accessible in no other way save through trance, and they regard narratives of the experiences as documents valuable to share … The hallucinations of actual *n/omkxaosi* [shamans] become, by a process at once highly individual and highly social, conventionalised vehicles facilitating trance for the uninitiated (1993:, pp. 72, 76; parenthesis added).

As Biesele says, accounts of trance experiences 'add to' tradition. Biesele's phrase 'culturally informed' does not refer exclusively to mythical narratives and beings but includes practices of daily life, hunting techniques, human relationships, relationships with animals and so forth, all integral to San life. This is why trance experiences often broadly resemble everyday life. On the other hand, the metaphors of trance permeate myths, as Biesele (1993, pp. 83–98) has amply demonstrated.

The overall unity of complex San panels is what Biesele calls the pooled 'information about how things are in the other world and how people in this world would do best to relate to them' (Biesele, 1999, p. 70). In this way, painted panels actively and visually blended individual experiences with the belief tradition. Images that we may see as repetitive (e.g. multiple images of eland or kaross-clad figures) were probably all seen as unique messages from the beyond. That is why individuality was not expressed by distinctive personal styles and techniques of painting. Rather, each painter knew that his or her contribution to spiritual knowledge would be absorbed into the growing, evolving spiritual panorama painted on the rock face. As San shamans devote themselves to serving the community and humbly deprecate their own abilities, so, too, painters served the greater social whole rather than their own careers as artists.

It follows that the San could view relations between

painted images in their rock shelters from at least two perspectives: either as the ever-accumulating additions and participations of individuals, or as the consolidated, multi-insight manifestation of the spirit realm and its interdigitation with the material world. A perhaps better way of putting this point would be to say that the two perspectives were simultaneous: the walls of a painted rock shelter held in balance the individual and society, the material world and the spirit realm. Relationships between images were thus fluid rather than fixed.

By superimposing or juxtaposing images, painters added their contributions to religious knowledge. Biesele succinctly sums up the essence of this process as it is played out by non-painting shamans in the Kalahari: 'The power of the religion itself may lie largely in its having provided an amendable, growing form to which individuals, working idiosyncratic experience into concerted social understanding, can add meaning' (1993, p. 73).

Biesele's conclusion is relevant to rock art. The truth is in the panels rather than the individual images, and in the involvement of painters and viewers with all the variants. Everyone was mentally and socially embedded in a circumambient belief system – everyone was 'involved'.

Importantly, it does not follow that every San rock painting depicts a personal vision. Nor that every painter was a shaman. Still less, that images were made by people actually in trances. Wordsworth's 'powerful emotion recollected in tranquillity' would be closer to the mark. San belief and society were more flexible.

The approach to complex panels that I have outlined derives from San, not Western, ways of believing and seeing. Though not unimportant, concepts such as relative sizes of images, concerted action, orientation and style are of limited account in San rock art. Rather, it is the essences of images that mattered to the San, and those essences took precedence over any other considerations.

Image-making was deeply embedded in San religion and was consciously intended to contact, manifest and influence the spiritual realm. San rock art thus had an agency of its own: even after individual painters had died and were forgotten, dynamic, evolving panels contributed to the continuing construction of people's concepts of the spirit realm and its relation to the material world. Unlike most Western works of art, San rock art panels – interfaces between two realms – were never complete. They remained open-ended as long as there were San people to interact with them.

The possibility that comparable, though probably not identical, principles operated in rock art in other parts of the world is worth investigation. No one claims that all rock art originated in shamanistic contexts; indeed, other southern African rock arts, not made by San, are not shamanistic. Nevertheless, researchers may begin to learn from San rock art and the rich San ethnography something about non-Western ways of building up aggregates of images that carry powerful messages.

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The prehistoric petroglyphs of Terekty Aulie in Central Kazakhstan

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Introduction

Terekty Aulie is a *mazar*, holy site, and the focus of Kazakh folk Islamic practices involving pilgrimage to an area of granite outcrops that is located northeast of the city of Jezqazghan in the Ulytau region of the Qaraghandy province, central Kazakhstan (Lymer, 2000; 2004; Bedel'baeva, 2010). The outcrops are situated along the southern edge of the rocky ridge of the Terekty hills that lie in the greater Ulytau mountain range surrounded by desert steppe. In 1946 petroglyphs were discovered in the vicinity of the *mazar* by Kazakh archaeologists (Margulan, 1948) and have been the focus of an ongoing research programme that started in 1996 (Samashev *et al.*, 1999; Samashev *et al.*, 2013). Thus, it has been established that Terekty Aulie is in fact a large rock art complex which extends over three granite hills (Groups 1–3) with an additional further satellite site (Group 4) located to the west.

The majority of rock art sites found across Kazakhstan and Central Asia are cut into natural sandstone bedrock. What makes the Terekty Aulie complex unique is that the rock art images are carved into granite, which is one of the hardest rock materials to engrave. These petroglyphs were executed by deeply pecking into the granite and then were polished to achieve a smooth finish. Fine images can be easily executed in sandstone but are difficult to achieve in granite and, thus, the individual image elements at Terekty Aulie are larger than what one would expect.

Terekty Aulie's zoomorphic iconography (fig. 1) is dominated by the image of the horse (90%), but there also some other images of bulls, camels, goats, deer and

Fig. 1. Scene of horses from Group 3, Terekty Aulie.

Fig. 2. Tracing of a large scene of horses from Group 3, Terekty Aulie.

feline-like predators (Samashev *et al.*, 2000). Human figures are rare and there is also the occurrence of a few images of human footprints along with several motifs in the form of horse hooves. Other motifs found include a chariot, dots, zigzags and a gigantic grid.

When?

The majority of the petroglyphs of Terekty Aulie have been relatively dated to the Bronze Age (second millennium BCE) by analogues to artefacts and the presence of a small Bronze Age cemetery located southeast of hill Group 1.

The petroglyphs of horses are depicted in side profile and feature a stocky body with a head topped by a cropped mane. These features may be the representation of the ancient equine breed *Equus ferus* that is more commonly known as the Jungarian horse, Mongolian *takhi* or Przewalski's horse. The petroglyphs have heads and manes that are stylistically similar to equine figurines ornamenting bronze dagger hilts found in the southern Urals, East Kazakhstan and Siberia which belong to the Seima-Turbino phenomenon (Samashev and Zhumabekova, 1996; Parzinger, 1997; Molodin and Neskorov, 2010). The Seima-Turbino involves the wide distribution of bronze artefacts using tin provenanced from the Altai mountains that extends from the Altai to the region of Siberia bordering the northern part of Kazakhstan and dated approximately 2200–1700 BCE (Chernykh, 2008, p. 87; Frachetti, 2008: 52). It has also been proposed that there is a Seima-Turbino figurative tradition featuring these iconic equine forms which are found at rock art sites in eastern Kazakhstan and the Altai Republic (Pyatkin and Miklashevich, 1990, fig. 2).

A small cemetery of 20 burials dating to the Middle Bronze Age (c. 1500 BCE) is situated not too far from the hill designated Group 1 at Terekty Aulie. The burials were interred in cists covered with small stone mounds and belong to the Alakul archaeological culture (Samashev *et al.*, 2013, p. 213), a regional variation of the Andronovo super-culture which spreads across central Kazakhstan. However, there is no evidence that directly connects the rock art complex to the graves. It is also important to point out that the nearby city of Jezqazghan was a significant centre for mining oxidic copper during the Bronze

Age (Zauymbaev, 2013).

The peoples of Bronze Age central Kazakhstan could be narrowly described in economic terms as pastoralists practising the domestic husbandry of horses, cattle, sheep and goats as well as being accomplished metallurgists working in copper and bronze. They were also engaged in sophisticated social networks that distributed metal and other objects over long distances (Frachetti, 2008, p. 52). Perhaps they were clan-based societies (Koryakova and Epimakhov, 2007, p. 109) which held among their ranks the recognizable role of the metal-smith. We must, however, be careful in our use of the term the 'Bronze Age' as it has become an inflexible characterization of the peoples of the second millennium BCE which homogenizes their societies and religious beliefs (Lymer, 2010). The evidence of the diversity of Central Asian rock art iconography importantly provides a different perspective. We need to recognize that the installation of so many images in natural rock spaces around the landscape are part and parcel of a collection of local events that were once the idiosyncratic actions and experiences of diverse living persons and communities.

Fig. 3. Tracing of the stallion scene at Group 4, Terekty Aulie.

Why?

Traditionally, rock art images have been perceived as passive images adorning rock surfaces in an aesthetically pleasing manner. The role of the images are more dynamic than being merely outdoor galleries of art, as they are a special form of material culture that played an active part in the prehistoric communities which produced and engaged with them.

In the search for fresher understandings a nuanced approach is explored here that engages with the permeable and porous boundaries of a rock art site in the landscape (Lymer, 2010). They are special spaces in the natural environment where significant relationships are realized and accumulate throughout the ages. These locations accrue biographical events, memories, stories, material objects and rock art images as people dynamically engage with their discrete places. Some may also possess liminal qualities where boundaries become permeable as the space becomes a place of convergence, connection, transition and/or transformation.

The rock surfaces where the petroglyphs were carved and the locations of the images in the landscape provide important clues about their contexts. The petroglyphs were mainly cut into the flat exposed surfaces in discrete locations around the hills of Terekty Aulie. Occasionally, singular animals were engraved on to the floor surfaces of tiny natural hollows, while other zoomorphic images also were carved on the walls and awnings of small grottoes naturally occurring along the hillsides.

One particular petroglyph scene was deliberately installed upon two adjoining horizontal surfaces which are situated on the highest peak of the hill of Group 3 (figs. 1 and 2). The granite surfaces are densely carved with numerous horses along with the image of a bull, a couple of goats, human figures and a feline-like predator with a spiral tail.

To whom?

The above concentration of equine imagery undoubtedly emphasizes the prominence of horses in the religious experiences of past societies. As we know, the horse is important to the lived religions of indigenous peoples across Central and Inner Asia in the ethnographic present. In Tartar tales, for example, water was the nether region where the souls of the dead resided and when the dead rose, they could take on the form of horses (Riordan, 1978, p. 170). The great amount of equid images carved among the hillsides of Terekty Aulie may have also been used to access another realm populated by herds of horses which may have embodied deceased ancestors. The horse carvings, however, are not only visions of the spirits but also the physical manifestation of a dreamtime of ancestors in the living landscape. These equine petroglyphs also create close proximities that enable a crossing or mixing of other worlds. Individual members of a past society could have made special journeys to the hills of Terekty Aulie in order to consummate themselves with the ancestral time of the horse.

The next significant scene is found at Group 4, which is actually a single, large horizontal surface located 1.5 km west of the Terekty Aulie hills. What is striking about this scene is the image of a large stallion with numerous dots running down its spine that clearly indicates this is an image of power (fig. 3). In the various oral epics of Central Asian peoples, the horse was the important method of transport for the hero or shaman to enter into the Otherworld (Chadwick, 1969, p. 126). Among the Sakha of eastern Siberia, the gods take the form of horses, such as Uordakh-Djesegei, the sky-horse deity (Diachenko, 1994, p. 266). Uordakh-Djesegei manifests as a white stallion which appears in the clouds during the Sakha summer *kumis* (mare's milk) festival and the sound of thunder crackling in the sky is his passionate whinny. Perhaps the special scene at Group 4 not only represented a powerful entity but the dots also demonstrate this tableau was alive and imbued with potency, a situation similar to that of Buryat *ongons*, where an image is activated and becomes transformed into a deity (Humphrey, 1974).

Finally, at hill Group 2 there is the unique tableau involving two long lines emerging from a circle (fig. 4). It features a goat in a style that correlates to other

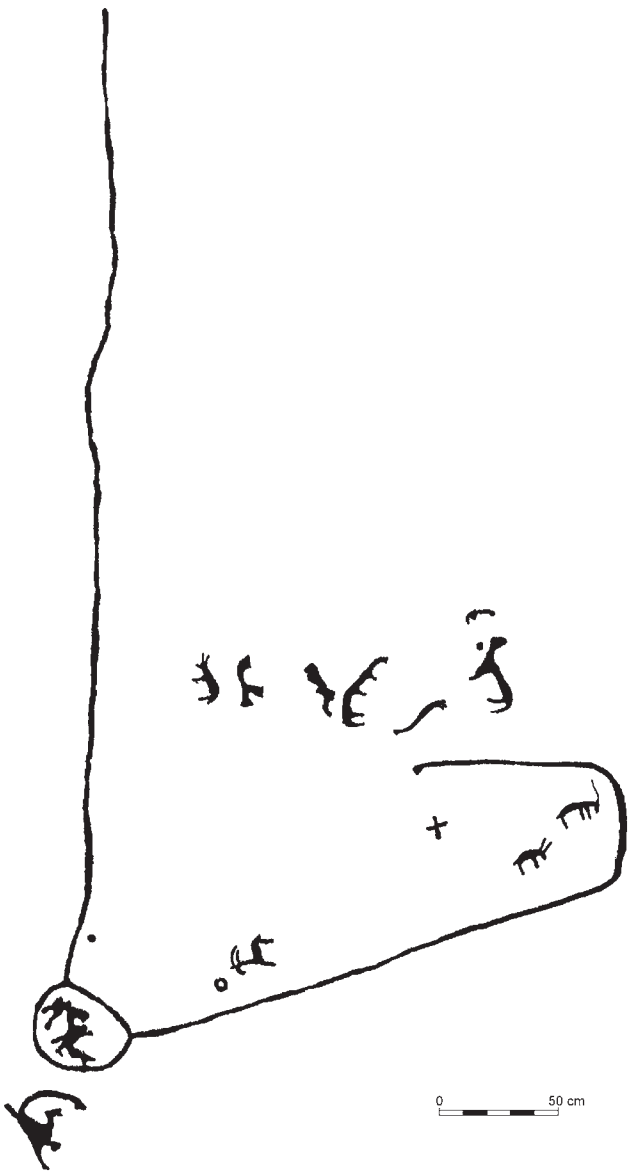

Fig. 4. 'Map' scene from Group 2, Terekty Aulie.

caprid images found at the scenes featured in Figures 2 and 3. In the centre of the circle there is a camel, while outside and directly below it there is the contorted figure of a person with a twisting leg. The twisted anthropomorphic figure may graphically represent the somatic experiences of a person in deep trance (Lymer, 2009, p. 230). There are medical case studies of synaesthesia that involve experiences of altered consciousness where the subject felt their legs become spirals or felt their limbs shrink or elongate (Klüver, 1942, pp. 181, 183). Therefore, it could be suggested that this figure may be the graphic representation of the somatic sensations of someone knowledgeable about

visionary experiences and shamanistic modalities.

Moreover, the lines of this scene have a striking similarity with a drawing of a *kamenlie*, the voyage to the spirits, made by an Altaic *kam* (shaman) recorded by the ethnographer Uno Harva (1938, pp. 557–8) in the early 20th century. In this drawing there is a long thin line that was explained by the ethnographer as the path of the *kam* journeying to the heavens. At the end of the path is the powerful deity White Ulgen who is depicted with lines radiating around his body. Along the lower part of the path there is a pole with the hide of a sacrificed horse. After the horse sacrifice the *kam* moved from his encampment into the Otherworld to meet the spirits. Overall, this ethnographic drawing importantly demonstrates how the *kam* passed through various trials and encounters with spirits along a path to the upper tiers of heaven, in order to bargain for good fortune for the community with a powerful being.

The scene from Terekty Aulie Group 2 is also strongly suggestive of being a map of a shamanistic journey involving encounters with animals in the spirit world, such as the camel and goat. Some Kyrgyz *bakshi* (shamans) have a young camel, Ak-Tailak, as their guardian spirit, while the spirit master of the drum of some Altai Teleut *kams* is also a young camel named Ak-Tailak (Potapov, 1976, pp. 339–40). Perhaps the petroglyph of the camel in the circle assisted a member of a past society to access other worlds by piercing through the veil of the rock face. The other petroglyphs of animals might have been spirits dispatched to catch the soul of a sick person or were offered in sacrifice to pacify harm-causing spirits. The lines coming from the camel's circle could have been the paths to the other worlds that move in two different directions, indicating that there are a number of routes to the realm of the spirits and not just the single path of ascending to heaven.

Concluding remarks

Overall, petroglyphs are not inert pretty pictures that passively document prehistoric cultures, but are part and parcel of dynamic performances in past societies used to engage with the tangible and intangible elements of the landscape around them. Moreover, Terekty Aulie provides a different view of Bronze Age communities and demonstrates the idiosyncrasy and localized diversity of these societies, which is not generally acknowledged in the monolithic explanations of archaeological cultures. Significantly, encounters with the landscape at Terekty Aulie involved interactions between people and herds of other-than-human-beings in equine form, that offer a tantalizing glimpse of the complexity and diversity of religious phenomena practised during the second millennium BCE.

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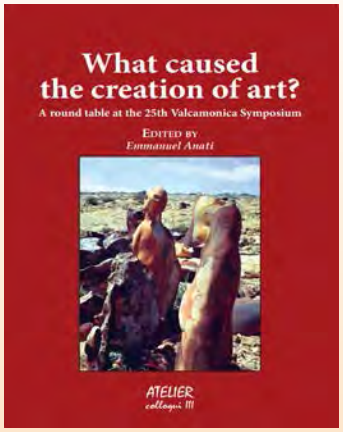

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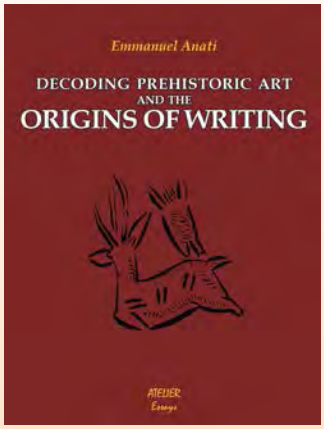

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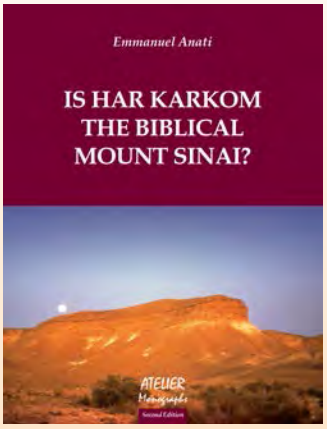

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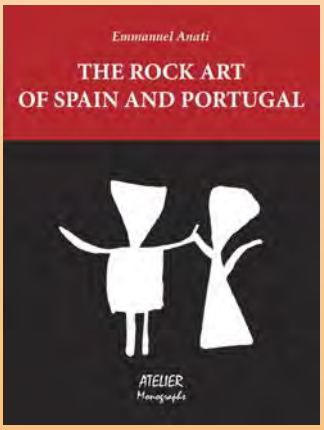

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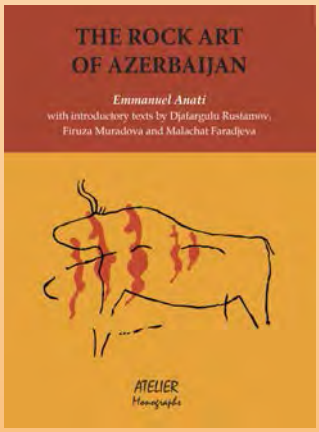

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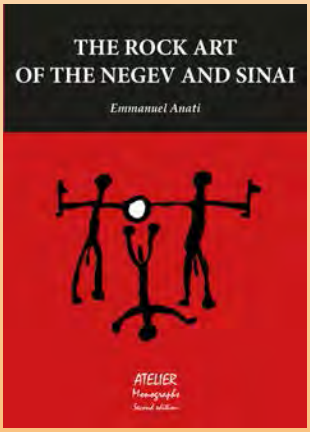

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