

Rock art as a source of the history of prehistory

(An account to promote the understanding of prehistoric rock art)

الفن الصخري كمصدر لتاريخ ما قبل التاريخ (تقرير لتعزيز فهم فن ما قبل التاريخ الصخري)

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ملخص

قد يعتقد البعض أن تاريخ الجنس البشري يبدأ بظهور الكتابة - فقط منذ بضعة آلاف قليلة من السنين (الفترة من 3000 - 4000 سنة قبل الآن). تاريخنا، على أية حال، يمتد إلى أبعد من تلك الفترة بملايين السنين. إن تاريخ البشرية في واقعه - متجذر وعمق في ذاك الماضي البعيد الذي يعرف اصطلاحاً باسم «ما قبل التاريخ». وهذه الفترة الزمنية - والتي تفتقر إلى أي شكل من أشكال الكتابة - لا يمكن التعرف عليها أو فحصها مباشرة إلا من خلال الاستعانة بالبقايا الأركيولوجية فقط.

إن الغرض من هذا التقرير هو تعريف القراء بالفن الصخري والدور المهم الذي يلعبه هذا النوع من البقايا الأركيولوجية في دراسة جانب مهم من تاريخ الجنس البشري قبل ظهور الكتابة. لذا، ينقسم العمل الحالي إلى ثلاثة أقسام رئيسية: القسم الأول ويتناول تعريف الفن الصخري وطبيعته؛ أما القسم الثاني فمركّس لبيان أهمية هذا النوع من الثقافة المادية في استكشاف فترة طويلة وغامضة من التاريخ البشري المبكر تفتقر تماماً لوجود أي نوع من السجلات المكتوبة أو الوثائق المدونة؛ في حين يشمل القسم الثالث والأخير - والذي يعتبر قسم حيوي في هذا العمل و متمم له - سجلاً تصويرياً توضيحياً لتحقيق فهم أفضل وأعمق لفن ما قبل التاريخ الصخري باعتباره أحد أهم المصادر الأركيولوجية التي نستقي منها المعلومات اللازمة لكتابة تاريخ ما قبل التاريخ.

Abstract

Some may believe that the history of mankind begins with the appearance of writing only a few several thousands of years ago (*cf.* 4000-3000 BCE). Our history, however, extends beyond that date millions of years. The history of mankind, indeed, is deeply rooted in the remote past which is called 'prehistory'. With the lacking of any form of writing, this 'prehistoric' period can be examined directly solely by recourse to the study of archaeological remains.

The purpose of this account is to introduce rock art to the readers and show the significant role of this sort of archaeological material in studying the history of mankind before the appearance of written records. The current work, therefore, is divided into three main sections: the first deals with definition of

rock art and its nature; the second section is devoted to showing the significance of this aspect of material culture in exploring a long and mysterious period of the early history of man characterized by the complete absence of written records or historical documents; the third and last section, which is a vital and integral part of this work, comprises an explanatory pictorial record to promote the understanding of prehistoric rock art as a source of information needed for writing the history of prehistory.

I. Rock art: definition and nature

I.1 Primary Note

In passing, it must be made clear that this sort of archaeological material is known and

studied under various names such as: rock art, rupestral art, stationary art, immovable art, immobiliary art, parietal art, mural art, wall art, cave art, palaeolithic cave art, prehistoric rock art, palaeoart, archaeo art, epigraphic rock art, picture writing, rock pictures, rock drawings, rock art representations, rock art depictions, rock doodles, rock images, rock imagery, rock marking, rock trace, rock carvings, rock paintings, wall paintings, rock frescos, rock engravings, rock etches or etchings, rock glyphs, rock scrapes, petroglyphs, petroglyphics, pictographs, pictography, pictopetroglyphics, pictopetroglyphology, pictoglyphs, petrographs, picturesque or pictorial art, pictorial representations, rock inscriptions, rock sculptures, rock records, *insculturas*;¹ *purakala*;² *ppefology* or *pefology* (with one 'p' for ease and convenience).³

1.2 Definition of Rock Art

As the term 'rock art' is concerned, the word 'rock' refers to a large concreted mass of stony material; a large fixed stone; also broken pieces of such masses.⁴ Based upon the way they are formed, rocks can be divided into three types: igneous, sedimentary, and metamorphic rocks.⁵ According to *Webster's New International Dictionary Of The English Language*, the word 'art' comes from the Latin word 'ars', which means skill, dexterity, or the power of performing certain actions, acquired by experience, study, or observation; knack.⁶

The term 'rock art', therefore, simply refers to 'anything drawn, painted, carved or engraved on rock'.⁷ These drawings, paintings, carvings or engravings are executed in caves and rock shelters or on rock boulders and walls of cliffs. In most recent studies, rock art is mentioned to refer to 'human-made marks on natural, non-portable rocky surface; the more common being those which are either applied *upon* the rock and

called *pictographs*- including paintings, drawings, daubings, stencils, prints, beeswax motifs- or which are cut into the rock and called *petroglyphs*- engravings, incising, pecking, gouging, symbolic grindings, etchings, and so forth'.⁸ This may also coincide with Hirst's definition: 'Rock art is the collective term used for various forms of artistic expression by humans and their immediate ancestors by incising, etching, painting, pecking, or otherwise physically changing the faces of outcrops or the walls of caves, or simply by moving or piling rocks on the landscape to form a design or pattern. Rock art subsets include petroglyphs, pictographs, geoglyphs, and petroforms'.⁹ Hence, rock art can be considered as any artificial mark that is intentionally created by man on a rock surface (*e.g.*, murals of caves and rock shelters, cliff walls and big boulders) either by subtractive (engraving) or by additive (painting and/or drawing) technique. In other words, the term 'rock art' denotes any intentional human-made modification of the rock surface by using subtractive and/or additive techniques. In sum, this term indicates all kinds of art (engravings, paintings, drawings) executed by man on rock surfaces. Therefore, 'rock art' can be simply defined as man-made images carved, drawn, or painted onto immovable natural rock surfaces.

From the above, and as we will see below, 'rock art' is a general term for engravings (petroglyphs), paintings and drawings (pictographs), or combination of both (petrographs or pictoglyphs) executed on rock faces or surfaces. The term 'rock art', however, is more frequently used in Europe rather than the more North American term 'petroglyph'.¹⁰

In addition to what has already been mentioned, it is also important to point to another two categories of rock art definitions:

the descriptive and the analytical. Descriptive definitions of rock art, on the one hand, systemize possible chronological sequences of style development. Analytical definitions of rock art, on the other hand, are compatible with information reported by ethnographic sources or an emic perception. Working definitions, therefore, must delineate rock art as 'portion of a culture's visual communication system which is painted and incised onto rock surfaces. The system will consist of a 'lexicon' of elements particular to the culture, will have affinities for certain context, and will show organizational principles at work indicating cognitive structure'.¹¹ Rock art, as Fossati and others state, is, therefore, 'form of visual non-verbal communication, which, as spoken language, consists of icons and symbols of culture. Thus, the way in which the phenomena of nature are shaped into an artistic code varies from culture to culture'.¹² Hassan also regarded this type of art as 'a system of signs with syntactic structure, symbolic/semantic content and pragmatic implication. The choice of images, their spatial arrangement and mode of presentation as well as the relationship between the icons are governed by a set of concepts'.¹³

1.3 The Nature of Rock Art

Having indicated the definition of rock art, let us next take a profuse look at its nature. Nelson describes the nature of this manner of art which makes its first appearance in Europe with the coming of the so-called Cro-Magnon man. According to his description, 'By stationary art is meant simply human and animal representations painted, etched or sculptured on cave or cliff walls and therefore permanently fixed. Belonging to this group are also a few examples of clay modeling, similarly immovable and which therefore, like the mural creations, were in a sense public property

for everyone to see'.¹⁴ Up to this point, the reader must have noticed that rock art falls into two main categories: paintings or pictographs and engravings or petroglyphs. In addition to these two categories a third division has also been identified as geoglyphs.

1.3.1 Rock Paintings or Pictographs

Pictograph refers to any mark made by additive techniques. It is 'an image that is painted or drawn onto a surface; it may also reference a form of symbolic imagery used as a mnemonic device that is usually not phonetic but is representational'.¹⁵ Pictographs, therefore, are paintings and/or drawings on rock which express artistic meaning. Some writers find 'Rock Painting' preferable to 'Pictograph' even though the latter term is widely used and generally understood in the United States to signify an image or a design painted or drawn on rock face. It is also important to distinguish here between the two types of pictographs: the drawings and the paintings. By drawing is meant application of dry pigment on a surface. Painting, on the other hand, refers to application of wet pigment on a surface. Pictographs, in sum, are made by adding pigments to rock surface: drawings are made onto walls using dry pigments, and paintings are made using wet pigments. Both are made by using brushes, fingers and palms or stenciling techniques.¹⁶ The paints were typically made from pulverized or minced minerals (*e.g.*, ochre, red iron oxide). The organic substances in these prehistoric paintings include: charcoal, plant fibers, marl which consists partly of raw fragments (such as were ground and liquefied with animal fat or blood serum) and partly of real pointed 'drawing pencils'.

This category of rock art (*i.e.*, pictographs or rock paintings) can be classified according to color

or number of colors into three: 'monochrome' paintings which are executed in only one or single color of pigment (*e.g.*, red, brown, or black); shaded 'bichrome' paintings that are executed in two colors; and shaded 'polychrome' paintings which are executed in more than two colors respectively. Paintings, therefore, vary in three main styles: monochrome, bichrome, and polychrome. Works in polychrome style produced some of the finest achievements of rock art. In addition to the above techniques of painting, stenciling was also employed to produce pictographs. A common prehistoric stenciling technique involved blowing paint around a hand placed against a rock surface to produce a 'negative' stenciled image of the hand (hand stencils).

1.3.2 Rock Engravings or Petroglyphs

Petroglyph or pictogram refers to any mark made by subtractive techniques. It means 'a shallow design cut into the surface of a rock and not also painted unless specifically so described'.¹⁷ Engraving is best reserved for 'work executed by incised lines and pecking where the surface is chipped away'.¹⁸ This coincides with Callahan's definition which comprehends petroglyph as 'an image carved or pecked into a rock face using stone [or sharp] tools'.¹⁹ Petroglyphs are therefore carvings in rock which express artistic meaning. They can be simply defined as images carved or pecked into a rock face using stone, metal or sharp tool. Petroglyphs or engravings, in sum, are made by removing rock from the substrata – by incising, pecking, hammering or abrading – leaving a negative impression.²⁰

As to the technique employed, engravings can be divided into pecked engravings, hammered engravings incised engravings, deeply incised or grooved engravings, abraded engravings, filiform

or scratched engravings, rubbed or polished engravings. Technically speaking, engraved or carved image is, therefore, a 'design or mark made in rock, where fragments of the surface are removed by various techniques -hammering, scratching, rubbing, drilling- that produced different effects: stipples or peck marks when hammered; thin lines when scratched; smooth sections when rubbed or drilled. Any petroglyph is a carving or etching regardless of technique employed'.²¹ A clear outline is given below to show the most important differences between the various types of rock engravings or petroglyphs:

- a. Pecked: a dimpled appearance on stone when a hammer stone is directly used to shape or roughen a surface. Pecked images are executed by using one of the following methods:
 - 1- Solid Pecked: using a pecking stone or other sharp, durable tool to completely dimple the surface so that individual peck marks are difficult or impossible to discern.
 - 2- Stipple Pecked: dimpling the surface in a non-contiguous pattern, leaving small spaces between individual peck marks.
- b. Hammered (solid-stippled): the effect that is produced by hammering indirectly on rock by controlling the blows of the hammering tool through a type of pointing chisel or punch.
- c. Incised: carving figures into rock by cutting lines to outline a figure.
- d. Grooved: carving figures into rock by cutting deep lines to outline a figure.
- e. Abraded: reduction of the rock surface by dragging a tool (lightly rubbing the rock surface with a coarse, durable stone tool; a shallower effect than cupule).

- f. Cupule: making rock images by abrasion, rubbing away enough of the rock surface to create cup-like depressions.
- g. Filiform-Scratched: the effect that is produced by lightly marring or scratching away the patina of very dark rocks using a sharp-edged tool; a shallower effect than incising. The lighter surface underneath would then be exposed in the shape of artist's choice.
- h. Rubbed-Polished: the effect that is produced by rubbing on rock with a tool (*e.g.*, elongated stone).

The major difference between the two main techniques used in executing rock engravings (*i.e.*, pecking and incising), hence, can be explained as follows: Pecking, which is one of the most used techniques in engravings, involves the use of a sharp object or tool to puncture the rock surface and create dotted images. Pecking, therefore, simply refers to striking of rock surface with a tool. Incising, which is also used although not as frequently as pecking, involves cutting the rock surface with a sharp object or tool to create outline shapes of images. The engraved or itched figures are represented either in outline (linear figures) or in full bodied pictures (figures in filled silhouette: silhouettes). In some cases, artists used mixed techniques to execute their engravings.

In addition to these types of engravings one can also discern the base-reliefs or the three dimensional (3D) engravings. A three dimensional carving is still attached to the background wall or rock.²² The three dimensional or 'excised' engravings, therefore, are executed by craving away the background around a figure in stone.

The term 'pictograph', as Willcox shows, 'was used by Mallery in America to cover all

forms of 'picture writing' whether carved or painted on any material, but has now come to mean a rock painting in the elemental sense, as apposed to petroglyph'.²³ Another important point is that the word 'pictoglyph' is 'a less used general term for a petroglyph or pictograph'.²⁴

1.3.3 Geoglyphs

These are images formed on the ground by scraping away surface material to form an image out of the exposed underlying soil, or by arranging stones to form a figure such as a petroform (a representational figure laid out on the ground with stones or boulders).²⁵ Geoglyphs, therefore, can be simply seen as large-scale images created on the ground. Typically surface matter was scraped away to form an image in the exposed, underlying soil, or by arranging stones to form an image. Geoglyphs, however, are the most fragile rock art.

From all what has been given above, it should be understood that rock art comprises two main categories: engravings or petroglyphs (designs pecked, scratched, abraded or otherwise cut into cliffs, boulders, bedrocks, or any natural rock surfaces) and rock paintings or pictographs (designs painted in similar locations). Besides, rock art also covers geoglyphs (designs made by arranging stones on or removing surface material from the ground).

1.3.4 Rock Art Styles

Style is the visible manifestation of the traditional forms of culture within any given society. It reflects the positive manners and expressions, which derive from culture and personality. Accordingly, style acts as a system of communication within the groups or the members who are linked to it. This also means that style represents the physical appearance of the

patterning behavior of society and its culture. An artistic style is 'a distinctive manner or way of doing something e.g., a unique decoration or expressive shape'.²⁶ It is 'the constant form- and sometimes the constant elements, qualities and expression- in art of an individual or group'.²⁷ Style is 'a mode of constructing and organizing motifs'.²⁸ Style, above all, is 'a kind of artistic type ... a recurrent cluster or complex of interrelated traits ... [it] is not separated from meaning or content'.²⁹ McCarthy defines style for the purposes of rock art studies (RAS). According to his definition, style is:

'The total design or pattern of a figure, whether it be in outline, linear, solid, or bear a line design. It is the final composition of the engraved, scratched, abraded, pecked or painted marks with which a figure is depicted that is, the manner in which the marks of the techniques are distributed in a figure'.³⁰

A rock art style, therefore, is the characteristics of a decorative technique based on employing specific variations in shape, texture, color, quality of skills, etc. Distinctive styles often correspond to specific period and/or geographical region. Rock art style(s), thus, can be seen as repetitious rock art form(s) that can be placed in time or space; often include(s) consideration of the overall aesthetic quality of expression.

Rock art images are characterized by a number of distinctive styles (*i.e.*, naturalistic, realistic, conventional, stylized, schematic, abstracted, and geometric).

The first and probably the older style is the naturalistic. Naturalism is 'the characteristic which deals with the natural and which conforms to nature and is opposed to idealism and symbolism ... naturalistic representations are those showing movement and vitality.

The animal representations which are called naturalistic are those where the stance of the animals is natural'.³¹

Realism could be considered as 'a representation, which faithfully renders nature, with many details which allow an accurate identification of what is represented'.³² In other words, realism is 'the quality of a work which represents an item of nature or life in an objective way without involving either poetry or the imagination'.³³

Stylization could be considered as 'a conventional representation in which the most characteristic traits are retained'.³⁴ Stylization 'is not idealism, but the incorporation of a subject into a particular system. Stylized art, as opposed to realistic and naturalistic art which remains close to the model, is removed and liberated from the need for resemblance. In stylization the model is not so important as the free use of the image with decorative intent. This is why stylized drawings are repeated so often and joined into decorative patterns'.³⁵

Schematization could be considered as 'the conventional representations in which a few minimal traits only emphasizes for the identification of a figure ... [It is] the progressive reduction of details of the representation, leading eventually to a minimal number of lines allowing at least an approximate identification'.³⁶

Abstraction could be defined as 'the representation in which all explanatory detail is excluded to indicate a quality or a meaning which is intelligible only through prior knowledge'.³⁷ Here, one can distinguish two slightly different meanings of this term:

- a. Abstraction art as non-figurative art: a representation is abstract when it contains no direct reference to reality, even though it may

resemble certain elements of reality or though it may have been derived from a real model.

- b. In a most restricted sense, an abstract figure is the representation of an imaginary being or object.³⁸

The following table describes the manner and style of rock art as considered by a number of the specialists in this field:³⁹

stylized, and schematic styles whereas the second rock art style comprises the abstracted, and the geometric.

1.3.5 The subject-matter of rock art or the categories of the represented motifs:

As to the subject-matter of rock art (*i.e.*, the depicted themes, topics and subjects), this type of artistic creation can be divided into two

Style	applying to	concerned with	other notes
Naturalistic	representations of animals (including man) and plants	degree of likeness between the object and its representation	Likeness is such that the subject is immediately recognizable by anyone familiar with it and used to seeing and interpreting the pictures.
Realistic	a picture of a building or mountain, but this should drop out for descriptions of living things		
Conventional	images that use substitute (often simplified or schematic) designs to represent the natural form or features of an object or figure		It does conforming to conventions, that is taking forms having generally agreed our understood meanings (it could include symbols).
Stylized	(Has little proper application to prehistoric art)		
Schematic	So simplified representations that they are only recognizable to initiated. (it is rejected as meaningless when applied to non-representational art)		
Abstract (Used synonymously with geometric)	motifs that offer no iconic information elements (motifs that are not readily identifiable)	form but not meaning (<i>i.e.</i> , image cannot be readily identified even though it possesses a clear and definite form).	<ul style="list-style-type: none"> • to satisfy the eye with the minimum of realistic representations • to select certain elements and reject others in what is depicted • to eliminate representation altogether, thus meaning no more than non-representational.
Geometric	motifs of simple geometrical form or design, such as squares, rectangles, circles, ovals, spirals, lines, cupules, CLM, barred lines, etc.	form but not meaning (<i>i.e.</i> , depicting a readily identifiable geometric shape)	<ul style="list-style-type: none"> • to eliminate representation altogether, thus meaning no more than non-representational.

From the above table, we can distinguish two grand rock art styles: the biographic art style (representational art) and the geometric art style (non-representational art); the first includes the naturalistic, realistic, conventional,

main categories: the first is representational, figurative or biographic art, and the second is non-representational, non-figurative, geometric or abstract art. There is also another category which is known as amorphous art.

The first category refers to the intention to depict an object (natural or artificial, animate or not, even imagery).⁴⁰ Accordingly, by this category is meant all the figures of animals (zoomorphs): running, grazing, falling or lying down, pursuing human beings; humans (anthropomorphs): hunting or chasing, fighting, battling, ambushing; dancing, dancing next to hunting as a part of incantation process or rituals; idols: shamans, rain-makers, kaggans; fabulous creatures; plants; huts and houses; tools, weapons and instruments. It is also interesting that some writers use the term 'representative biomorphic manifestations' to refer to the depictions of this category which, according to them, include human-like (anthropomorphic) images, animals and birds (animalistic or zoomorphic figures), hand prints and animal traces as well as their footprints.⁴¹

The second category, the non-representational, non-figurative, geometric, or abstract art, as described by Willcox, includes 'the designs that take any [abstract] geometrical form (circles, rectangles, triangles, grids, sets of parallel lines, and/or all combinations of these forms, wavy or zigzag lines [spirals] having fairly regular rhythm',⁴² curved shaped figures, echeloned and cross-like lines). Consequently, we can include in this category all the conventional symbols such as stars, moon, and sun.

The third and last category, amorphous art, includes 'designs which having no determinate shape' such as meandering or criss-cross lines, shapeless open or closed curve, irregular arrangements of dots and/or combination of these.⁴³

We have to put into consideration that some writers use the term 'schematic' to cover all the designs which are included in the last two categories mentioned above.⁴⁴

II. Rock art and exploring man's world prehistory:

It must be made clear that prehistoric rock art is not confined to specific area. Its distribution is world wide.⁴⁵ It occurs in the Old World (Africa, Europe and Asia) and the New World (North and South America, and Australia) as well. At this point, Jordan relates:

*'Scattered around the world, from Siberia to the Sahara, from the caves of Lascaux to caverns in Guatemala and rock shelters in the Australian outback, prehistoric people have left curious runes. Called rock art, rock drawings, petroglyphs and pictographs, they have intrigued anthropologists and others continuously for decades. In fact, interest in these ancient doodles reaches far from academic realms and is one of those things, like Egyptology, that fascinates the large public. National Geographic, that journal of popular everything, finds its readers so enthralled the magazine publishes regular reports on new rock art discoveries. Governments have financed expeditions in search of both more rock art and their meanings.'*⁴⁶

This sort of archaeological material can be considered the world's longest continuing art tradition. It tells, for example, the 50,000 year story of the Australian aboriginals of Arnhem-Land.⁴⁷ This rock art corpus (the Australian) may be as old as human occupation of that continent, up to 60,000 years old and perhaps far older.⁴⁸ In Tanzania, rock art sites date back about 50,000 years.⁴⁹ Palaeolithic cave art in Europe also takes us in a long journey inside the world of the Ice Age in Western Europe and Russia.⁵⁰ The oldest known example for rock art in Europe is an arrangement of eighteen cup marks on a rock slab over a child's burial in a French cave. Radiocarbon dates for European paintings rang back to more than 32,000 years. Some 200 caves in southwestern France and northern Spain (the French-Cantabrian area) contain cave paintings from the Upper Palaeolithic

period. These are radiocarbon dated from 32,410 at Chauvet to 11,600 at the Portel.⁵¹ Painted and engraved images of animals on stone slabs have been excavated and dated to 28,000 years ago in Namibia.⁵² A California rock art site has been dated to about 20,000 years ago, based on the analysis of mineral varnish covering a pictograph.⁵³ And now, in some countries, such as Southern Africa, it is becoming difficult to escape from rock art images. Many depictions of rock art are becoming re-produced in a wide variety of contemporary context. Moreover, the Southern Africa rock art is also being used in foreign, and often quite unexpected, context.⁵⁴

Rock art can be found, for instance, in more than a million sites across Africa alone.⁵⁵ The considerable number of prehistoric rock art sites discovered so far around the world gives rise to this type of art to be an important reference in prehistory. It constitutes, for example, a central topic in 'Hunter-Gatherer Archeology'.⁵⁶ Furthermore, the study of this type of art has recently become an independent subdivision of archaeology recognized as the 'Archaeology of Rock Art'.⁵⁷ Some writers have also advocated the establishment of a new discipline, and the introduction of a new name for rock art (*e.g.*, '*ppefology*' or '*pefology*') providing this discipline with a distinct identity apart from ethnography, archaeology and art history.⁵⁸

As stated by Day, 'rock art (mainly the cave paintings) is the only useful tool that has been so far considered but perhaps the most remarkable record of fossil man'.⁵⁹ Nelson also describes these paintings and engravings as 'Striking artistic achievements of prehistoric man, which tell a story of the dim past and inspire modern artists with their techniques'.⁶⁰ This type of art is of different times. It presents different visions of world prehistory and shows several stylistic conventions that add significantly to insight into both the evolution of art and its function in prehistoric cultures. Odak goes further by stating that 'rock art

is not just a stage in the evolution of art, nor just a representative of a period in cultural history, but part of a cultural system of all peoples irrespective of the levels of socio-economic development'.⁶¹ Rock paintings and engravings reflect the way and the manner by which prehistoric peoples interpreted their physical and spiritual worlds.⁶² According to Anati, rock art 'was often an attempt to interpret nature'.⁶³ He also considers this type of art as preliterate documentation.⁶⁴ Regardless of its aesthetic value, prehistoric rock art 'constitutes one important phase of the middle portion of a long many-sided story- the story of the development of human civilization'.⁶⁵ This situation along with such points of view lead us to deal with this sort of archeological material as a source which symbolizes the man's existence and his mental agility during prehistory.

It is also interesting to validate here the important role that rock art has compared with that of other archaeological materials. Rock art images, as mentioned above, are a precious depository of information on how prehistoric people interpreted their physical and spiritual worlds. Whereas their bones and implements may tell us when and where they existed, how they lived and died, and what they ate, it is only through their art that we can know a little about their thought.⁶⁶

Indeed, prehistoric rock art provides us with supplementary information that can not be easily obtained through conventional archaeological methods. For example, we cannot deduce from other archaeological materials information regarding hair dress, clothes, masks, body painting or tattoos, dancing, ritual and religious practices, ideology, sexual life, warfare or fighting and battling, hunting techniques, ... etc. This sort of archaeological evidence, therefore, provides us with information which enriching our description and consequently our understanding of the concerned prehistoric people's culture. In that

capacity, prehistoric rock art ‘serves as an artifact providing information on past human cultures’.⁶⁷

The significance of this aspect of material culture lies in that rock art is seen by the majority of anthropologists, archaeologists, prehistorians and rock art researchers as a system of communication.⁶⁸ Thus, rock paintings and engravings -which can be seen as a type of artistic activities, or more generally symbolic activities and social communication- can provide socio-cultural information that is not generally available to the archaeologists. For this reason, some authors presume that rock art images substitute to some degree the written documents which appeared only with the beginning of the historical period. In this regard, Winkler, for example, wrote:

*Rock-drawings replace in some degree written records. We may not only learn from them different artistic conceptions, but we may also obtain rich information about dress, weapons, hunting, shipping, wild and domestic animals; sometimes we can even draw certain conclusions as to the religious beliefs and social institutions of the authors of such drawings’.*⁶⁹

This matter leads us to discuss the putative relation between rock art and the origin of writing. Hoebel explains the relation between art, language and writing.⁷⁰ He defines both art and writing showing the nature of each and their most important functions and the roles they play in man’s life. The following table summarizes that.

	Art	Writing
Definition	Human activity or product (artifact) that emphasizes form.	Visual symbols substituted for spoken words.
Nature	Both are forms of communication.	
	Both are a social expression, and inevitably they become a part of culture.	
	Both are inextricably tied to religion and magic- and to politics.	

Function	Both tend to translate, release, and externalize the ideas, meanings, emotions, tensions, expressions, and feelings in an objective way.
	Both are stimulated by man to sensuous perceptions that produce emotional responses.
	Both serve social as well as individual interests and needs.

Hoebel, then, concludes that ‘All writing is therefore symbolic, and its origins lie in symbolic art and thought’.⁷¹ He goes further when he explains the ‘artistic’ symbolic characteristic of writing by stating that:

*‘Conventionalization is often considered to be a process of degeneration of art. This is true only when conventionalization reflect a decline in technique- a simplification of line and form due to slovenliness or share lack of skill on the part of the artist. It is not true when the interest of the artist is actually shifted from the image of the object portrayed to its meaning’.*⁷²

In Hoebel’s opinion, the so-called ‘degenerate’ figures of Palaeolithic art on the painted pebbles of the Mesolithic culture, for instance, are ‘the rudiments of an embryonic system of writing’.⁷³ In supporting that he depends on Obermaier’s argument on European Palaeolithic art:

*‘Obermaier is arguing for a genetic relationship between the Azilian painted pebbles [from the Mesolithic Period] and the painted petroglyphs of the Spanish caves and rock shelters [from the Palaeolithic Period]. Clearly, the Azilian  symbolizes a squatting female and the  is a male. Azilian man had apparently progressed from picture writing to the use of ideographs-drawn or written symbols that stand directly for things or notions instead of the sounds of words in the language of the users. Such is the first step in the evolution and origin of all systems of writing’.*⁷⁴

Klotchicov has described the major developments of the writing system in Mesopotamia, which is considered the most ancient in the world. According to him this ‘new invention’ belongs to the Sumerians who inhabited the modern southern Iraq during the fourth and the third millennia BCE. This writing system was in use for more than 3000 years (the last recorded Sumerian text goes back to the middle of the first century CE, whereas the most ancient inscription dates to 3100 BCE). Among the characteristic signs of this ancient writing system, the creators in the first half of the third millennium BCE did not tend to formulate symbols depending on the cuneiforms but they used to inscribe simple drawings of the objects following straight lines or strokes. In some cases, one can distinguish representations or signs of birds, bull-head, spike, plough, man’s foot, etc. Hence, Klotchicov concludes that the Sumerian writing (the Cuneiform) has developed from the drawings consist of simple schematic representations to the cuneiform abstracted signs which are for the most part decontaminated from the original.⁷⁵

Similar to the Cuneiform (Sumerian, Babylonian, Assyrian), other independent basic script systems: the ancient Egyptian, Hittite, Cretan, Chinese, Indic and Mayan-Aztec systems - all have developed from simple pictures to form abstract signs or symbols. An example from the Chinese writing system is presented below to show how this script system is developed out of picture writing:

‘The Chinese system of characters is fundamentally an ideographic picture writing which has become reduced to a set of timesaving brushstrokes and which is in some aspects also phonetic. Its ideographic quality may be readily discerned in the manner of writing such words as ‘prisoner’ or ‘happiness’. In the character for ‘prisoner’, we see a man 人, in an enclosure 囹. ‘Happiness’ is a woman (wife), 女, with a son, 子.’⁷⁶

From what has been presented above we can imagine how the transformation of art was responsible for developing most of writing systems whether they were independent or borrowed. In this regard, Hoebel traces the origin of the first letter of alphabet ‘A’ which was firstly used in Egyptian hieroglyphic ideograms, then in Semitic as *Aleph* for illustrative purposes to refer to the ‘ox’, then was formed in the ninth century BCE with three straight lines, then inverted on its horn in later Greek, and finally became A.⁷⁷ The following table summarizes this transformational development:

Egyptian hieroglyphic ideograms	Semitic symbols	Later Greek	Other Languages
	Aleph means ox) 		It became 

One difference between art and writing is that the ‘language’ of the former is visual rather than verbal.⁷⁸ Rock art, therefore, is a ‘non-verbal communication system’; it is a ‘graphic or visual communication system’. According to Olsen, ‘visual communication systems exist as a condition of human life in many parts of the world where oral traditions maintain cultural information. [Different cultures use different strategies] for organizing their images and giving them meanings’.⁷⁹ Hoebel also expresses the same idea by stating that: ‘The capstone was thus put on the transition from art to writing. The communication of generalized states of emotions and ideas through the aesthetic medium had at long last been transmuted to communication of precise linguistic expression through phonetically representative symbols’.⁸⁰

Hence, one may conclude that rock art reflects the unity of primal vision and of mentality. Studies of San rock art, for instance, have generally assumed the existence of a structurally uniform ‘pan-San’ cogitative system from at least 2,000 years B.P. to the present

all over southern Africa.⁸¹ Ripoll-Perelló also refers to 'a state of the human spirit which accompanies rock art, and from its final stages writing might have been developed'.⁸² In his description of the rock art in North America, Sterling explains the reason for which cave and rock paintings or pictographs are spoken of as 'picture writing': 'They are interesting for the story they tell of Indian life. Some are clearly magic –an appeal to the sun, a prayer to the rain. Others are more like an attempt at writing –pictures of water holes, report of good hunting or of the travel of a tribe'.⁸³ Magan and Klassen also look at this type of art as 'Writing-on-Stone'.⁸⁴ Callahan as well points out to the so-called 'birch bark scroll' the term which refers to 'a form of a pictographic writing (non-phonetic) often used to remember songs or shamanic rituals'.⁸⁵

Similar to other archaeological materials (*e.g.*, stone tools and implements, pottery) rock art can be taken as evidence for the early human occupation. In the Altamira cave interior, for example, simple paintings and engravings are found. According to the information gained from this cave and neighboring areas, these rock drawings belong to Aurignacian times.⁸⁶ This means that these figurative drawings did not make their appearance until Aurignacian culture with the *Homo sapiens* who decorated their everyday objects and portrayed improvised human forms, especially feminine ones, and some animals on blocks of rocks. Engravings and paintings from this period show even more schematized portrayals of animals. However, it was definitely the Magdalenians who turned out to be the greatest prehistoric artists: they painted the walls of a large number of caves in France and Spain.⁸⁷

The Paleolithic or Old Stone Age artists left upon the walls and ceilings of the Spanish and French caves (*e.g.*, Altamira, Lascaux, Chauvet, and Cosquer) painted pictures of prehistoric animals. Thus, one can safely state that the main element which can be observed in this area of rock art is the animal element. For this

reason, Ucko, for example, considers Palaeolithic cave art as '*animal art*'.⁸⁸ Among the principal game animals we can identify the mammoth, the bison, the aurochs, the rhinoceros, the wild horse, the stag or red deer. Besides these species one can also discern the marmot, the chamois, the ibex, the bear, the cave lion, the deer, the wild hog, the reindeer, the northern seal, the wolf, the lynx, and the fox. Among the implications of such paintings is that we are dealing with arctic conditions (geologically speaking, with the last glacial advance). The rock art of the Early Neolithic hunters of the Sahara (mainly the older phases which represent a great variety of wild fauna including elephants, rhinoceros, hippopotamus, crocodiles, giraffes, wild buffalos or large wild bovids, and large antelopes) also reflects the pre-Saharan climatic and ecological conditions from about the sixth millennium BCE. In the opinion of several students examining rock art images, mainly those of wild or game animals, can contribute to the study of the history of pre-Saharan fauna.⁸⁹ Concerning such a palaeozoological reconstruction, Blanchard assumes that 'it is better to rely on good naturalistic representations of the fauna than on the bones of animals'.⁹⁰ Indeed, zoomorphic figures depicted in rock art can be utilized particularly when there is no osteological data available. Giraffe bones, for example, have never been found in the Sahara whereas their images are depicted in a considerable number on the rocks of this vast area. Also, avifaunal remains (bone remains of birds), fish remains, and vegetal remains all are very rare compared to the organic remains of the other fauna. The images of these species which are depicted in rock art are very useful in reconstructing the history of fauna and flora in many parts of the world. This also implies that rock art can be functioned in reconstructing palaeoclimatic, palaeoenvironmental, and paleoecological conditions in many part of the world. The presence of mega fauna in Paleolithic cave art and Saharan rock art (*i.e.*, the Arctic species and the Wild Ethiopian fauna respectively), for

example, indicates that they were ecologically associated with wet conditions or abundant water. Reconstructing palaeoclimatic changes is therefore possible in light of the fact that climatic deterioration that took place in several areas is evidenced by the decline of early magnificent rock art traditions in many parts of the world (*e.g.*, Western Europe, northern Africa and the Sahara).

The variety of rock art themes allows us to extract valuable information needed for reconstructing the regional economy and environmental adaptation (by studying, for example, prehistoric hunting methods developed for specific environments as depicted in rock art images). The multiplicity of the represented themes also provides us with the topographical situation and ecological setting. Utilizing rock art styles is of vital importance in studying such issues. Nelson, for example, distinguishes two styles of European Palaeolithic rock art. The first, and the older, is the Franco-Cantabrian style or the imitative style or portrait pictures. It is characterized by isolated or individual representations of animals and human beings. They are polychromes and depicted in natural size and poses. The second style is the Levantine style or the interpretive style or action pictures. It represents real compositions or groups illustrating for the most part hunting or dancing scenes executed in a conventional manner.⁹²

The deterioration or the degradation of the naturalistic style was a consequence of the physical (environmental and ecological) and cultural changes that occurred in the end of Palaeolithic period. Nelson explains this point by stating that: 'Pictorial art of the strictly Palaeolithic style disappeared from southern Europe as a natural result of decadence of the hunting cultures during Mesolithic times, *i.e.*, actually sometime before the down of the true Neolithic age'.⁹³

Another important point concerning the significance of rock art is that human remains (osteological data or palaeoanthropological evidence) of the Late Pleistocene are sometimes not available

or inadequate for reconstructing the ethnological history of the ancient population. Regarding this problem Dutour, for instance, relates: 'The palaeoanthropological history of the Sahara is still poorly known, because of paucity of material which has been recovered thus far from this vast area'.⁹⁴ In such a case, anthropomorphic figures represented in rock art are often of vital importance in obtaining valuable and sometimes precise information regarding ethnic and cultural groups. From this perspective, attempts have been made to identify the different ethnic groups of the Saharan population during the Late Pleistocene and Early Holocene depending on the physical characteristics of human figures of Tassili and elsewhere in the Sahara.⁹⁵

In addition, substantial data on the evolution of human settlement and the dynamics of ancient population can be obtained by studying the distribution of rock art images and their concentration in particular areas or zones. In other words, the careful study of a rock art corpus certainly contributes to the study of microevolution of prehistoric populations (*i.e.*, their displacement, migrations, and genetic drift). In this respect, one might argue that rock art style and techniques could be useful in studying the various ancient migrations that occurred during prehistoric times. Nelson explains this by showing that 'the separate artistic traditions were carried in several directions from the point of origin'.⁹⁶ Hence, rock art can be used in studying interregional interaction during prehistoric times.⁹⁷ Rock art, therefore, involves valuable and rich data that enable us to detect the continuation and discontinuation of cultural traditions and draw conclusions on the life and death of prehistoric communities.

Thus, we can conclude that palaeozoological history and the biological and geographical evolution of human settlement since the Late Pleistocene (or at least at the boundary Pleistocene-Holocene) are

possible to follow up- or in any case- can be revised by utilizing the data obtained from the analysis of rock art images. The conclusion, then, must be that the zoomorphic and anthropomorphic figures presented in rock art can be regarded, at any rate, as a secondary source for obtaining and/or supporting both palaeoenvironmental and palaeobiological data.

Rock art can also be used as an ethnohistoric source since the native point of view (*i.e.*, impressions and experiences) still resides in the domain of art.⁹⁸ The largest body of the representational art consists of pictographs (paintings) and petroglyphs (engravings). These images (mainly those dated before the appearance of writing) provide an artistic view of the prehistoric experience. In this regard, Molyneaux relates:

*'The fixed position of rock art within a fluid cultural landscape makes it potentially sensitive to changes in the patterns of group occupation or the adaptation within a region. If differences of the form, the subject, or location of images are shown to reflect changes in conceptual orientation, rock art may reflect the wider socio-economic and ideological changes in the lives of cultural groups. It might be possible, then to use rock art in the analyses of the problem of [...] cultural history and continuity [of culture through times]'*⁹⁹

Up to this point, some writers argue that rock art can be taken to document, for example, changes in the concept of self in relation to nature. Cheska, for instance, has developed an interpretation of the post-contact history of Micmac culture depending on rock art images.¹⁰⁰ According to this interpretation, the Micmac's rock art is divided into three phases corresponding to the 18th, 19th, and 20th centuries: 'identification of self with nature (respect)... identification of self over nature (control); and... identification of self on nature (abuse)'.¹⁰¹ Lewis-Williams and others also employed rock art images to study changing perceptions of Southern Africa past.¹⁰²

As an undeniable fact, the painted and engraved rocks reveal some resemblances and differences in motive, idea, and morphology. This means that rock art reflects the similarities and dissimilarities in the mentality of various human groups. The analysis of thematic content of these images may enable us to formulate generalizations regarding prehistoric human groups in specific period of time (*e.g.*, most if not all of these groups have passed through the hunting-gathering stage). Analyzing similar topics or thematic content of rock art images (*e.g.*, hunting scenes) from different regions may allow us to discern the major differences in the mentality of these prehistoric groups. In view of that, we can safely affirm that this aspect of culture (*i.e.*, rock art) demonstrates a configuration which is rich in local, regional, and world-wide elements.

A number of authors, as well, believe that spiritual preoccupations emerged and societies became increasingly ritualized with the appearance of the aesthetic feelings and artistic expressions. This category of writers usually attributes the origin of 'primitive' religion to rock art traditions which took place in the Palaeolithic Period or the last Ice Age which extended from 110,000 to 10,000 BCE Young, for example, considers Paleolithic cave art as one of the most important evidence of early art forms which are closely linked to the religious beliefs and ideology.¹⁰³ Chippindale, Smith and Taçon studied the archaic rock-paintings in Western Arnhem Land in Australia as visions of dynamic power.¹⁰⁴ In his study of some aspects of representational art in prehistoric Siberia, Whitaker argued that the ithyphallic condition of the represented deer suggests some association with fertility rites.¹⁰⁵ Such examples show that it is possible to deduce valuable information concerning ritual life in prehistory. The reason for that, as believed by many authors, is that rock art is considered one of the most aspects of man's culture which are affected by religious beliefs and ideology.

Rock art also has a chronological value. Placing rock art images in a chronological sequence allows us to follow the different stages of cultural evolution of mankind in prehistory. According to the represented themes, the style and technique employed, the degree of patination, and the cases of superimposition, rock art researchers attempt to establish a chronological scheme for each rock art corpus. The Saharan rock art corpus, for example, is chronologically divided into four major periods or phases: *Bubaline* Period; Cattle or Bovidian Period; *Caballine* or Horse Period; and *Camelline* or Camel Period. Each period is, consequently, connected with specific aspects of economic (hunting and gathering, pastoralism, warfare, and nomadism), technological, and cultural and social activities.¹⁰⁶

Rock paintings or pictographs can be utilized in identifying ancient DNA of both humans and animals. This can be done since prehistoric artists could have been used organic substances (*e.g.*, animal fat, blood serum of animals and/or humans) to bind the pigment to the rock.¹⁰⁷

In conclusion, human occupation, economic activities, cultural adaptation and other social and cultural aspects of prehistoric people –can all be evidenced and attested by recourse to rock art subjects which are well-documented in many areas of the world. The multiple nature of rock art which is reflected in

the variety of the represented themes, hence, ensures us as specialists in this field to adjoin our results with those deduced from the other fields of specialization (*e.g.*, palaeozoology, palaeobotany, paleoecology, palaeoenvironment, palaeontology, palaeoanthropology, palaeobiology, ethnography, archaeology, and history). The validity of this longest continuing art tradition is undeniable in exploring man's world prehistory.

III. Explanatory pictorial record to promote the understanding of prehistoric rock art

This elucidated section is especially designed to provide the readers with a tangible perception of rock art. It visualizes most if not all what has been included in the current account. The main aim of this illustrative section is to outline the many topics and details presented in the previous pages in four questions which will be answered via a carefully selected group of images that cover different areas of this world-wide artistic tradition. Each image will be an adjunct to a very short but fitting comment which comes back with a part of the answer. The four questions which are considered in this section follow: 'Where', 'What', 'How', and 'Why' rock art.

III.1: Rock art ... Where? (Figs. 1-3)

Rock art is parietal, meaning executed on the walls of caves and shelters. It also occurs in open-



(Fig. 1) A part of the (Hall of the Bulls) inside one of the many decorated caves discovered in Lascaux (Dordogne, France), <http://www.crystalinks.com/petroglyphs.html>



(Fig. 2) A rock art shelter in the Tin Aboteka Area (Tassili N'Ajjer, the Algerian Sahara), <http://www.paleologos.com/mysterio.htm>, (Photo by Neil Austin. Copyright SA Tourism)



(Fig. 3) San rock art boulders in Vanderkloof (The Northern Cape, South Africa), http://www.southafrica.info/pls/cms/show_gallery_sa_info?p_gid=2306&p_site_id=38

air, meaning made on exposed natural bedrock outcrops, huge blocks or large exposed boulders. Rock paintings and engravings, then, seem to be represented since the suitable rock surfaces are available and people are acquainted with rock art tradition.

III.2: Rock art ... What? (Figs. 4-11)

Rock art consists of two main categories: paintings and drawings (pictographs), and engravings (petroglyphs) or, in some cases, a combination of both. There are also another two less famous types of rock art. The first type comprises the permanently fixed representations sculptured on cave or cliff walls; this type of rock art also includes the immovable clay modeled figures. The second is known as (geoglyphs) which cover drawings on the ground, or large motifs or designs produced on the ground, either by arranging stones to create positive geoglyphs or by removing patinated stones, stone fragments, gravel, earth or soil to expose unpatinated ground and create negative geoglyphs.



(The art collection of the Constitutional Court)
(Fig. 4) Rock paintings (pictographs) of San (Southern Africa), http://www.southafrica.info/pls/cms/show_gallery_sa_info?p_gid=2306&p_site_id=38



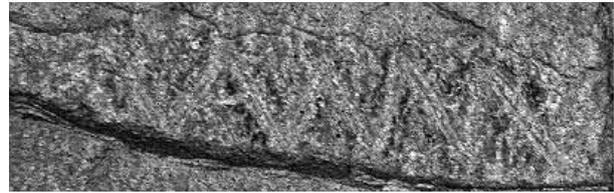
(Fig. 5) A rock drawing (pictograph or pictogram) from Columbia, <http://www.crystalinks.com/petroglyphs.html>



(Fig. 6) Rock engravings (petroglyphs) on Newspaper Rock at Canyon Lands National Park (south of Moab, south eastern Utah, USA), <http://en.wikipedia.org/wiki/Petroglyph>



(Fig. 9) Bunjil geoglyph (the You Yangs Lara, Australia), A design produced on the ground by arranging stones to create positive geoglyph (petroform), <http://en.wikipedia.org/wiki/Geoglyph>



(Photo B. K. Swartz, Jr.)

(Fig. 7) This type of rock art is a combination of engraving and painting (pictopetroglyphics, pictoglyphs, or petroglyphs) (White River Narrows, Lincoln County, Nevada, USA), <http://web.bsu.edu/rockart/>

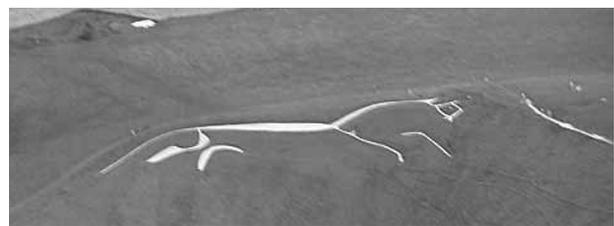


(Photo: P. Bahn 'Prehistoric Art')

(Fig. 8) Bison bull and cow, modeled in clay in the rotunda of the Tuc d'Audoubert, (Ariege, France), <http://www.donsmaps.com/cavepaintings3.html>



(Fig. 10) The Atacama Giant (The Atacama Desert), A geoglyph produced on the ground by removing patinated stones, stone fragments, gravel or earth to expose unpatinated ground and create negative geoglyph, http://en.wikipedia.org/wiki/Atacama_Giant



(Fig. 11) The White Horse as seen from an altitude of 700 meters, This geoglyph is a large-scale design produced on the ground by removing soil to expose unpatinated ground and create a negative figure

III.3: Rock art ... How? (Figs. 12-26)

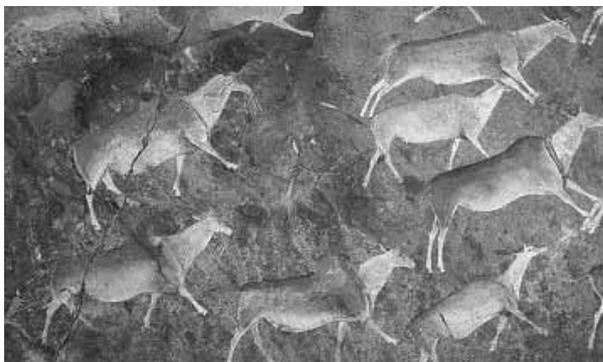
Rock art is executed by using different (additive: painting and drawing, or subtractive: engraving) techniques. Paintings are performed in one color (monochromes), two colors (bichromes) or more



(Fig. 12) Monochromes of aurochs (Lascaux, Dordogne, France), <http://en.wikipedia.org/wiki/Image:Lascaux-aurochs.jpg>



(Fig. 13) Bichrome of horse (Lascaux, Dordogne, France), http://artchive.com/artchive/C/cave/cave_painting_horse.jpg.html



(Fig. 14) Polychromes of the antelopes (eland) depicted in Zaamenkomst Panel (Maclear District, Southern Drakensburg, South Africa), http://www.lonker.net/art_african_1.htm

(polychromes). Engravings are done by using different techniques; they are pecked, hammered, incised, or scratched.



Jean-Marie Chauvet © DRAC
(Fig. 15) Hand stencil created by blowing red pigment onto a hand placed against the wall of Chauvet Cave (Point D'Arch, France), <http://www.culture.gouv.fr/culture/arcnat/chauvet/en/>



(Fig. 16) Engraved bovid in the rock art of the (Libyan) Sahara, A pecking technique is employed in executing this pre-Saharan animal. http://www.libyarockart.com/cow_rock_art.jpg



(Photo: Gerhard Milstreu, Rock Care). © ICOMOS
(Fig. 17) Fully-pecked Iron Age rock engravings (Valcamonica, Italy). <http://www.international.icomos.org/risk/2002/rockart2002.htm#>



(Fig. 18) Petroglyph made by the pecking technique (Arkansas, USA). <http://arkarcheology.uark.edu/rockart/index.html?pageName=What%20is%20Rock%20Art%20and%20What%20Can%20it%20Tell%20Us%20About%20the%20Past?>



(Fig. 19) Rock Engravings of the Bushmen (Twyfelfontein, Namibia), Two methods of a pecking technique are employed to create fully-pecked figures and pecked outlines. <http://www.phototravels.net/namibia/damaraland-twyfelfontein.html>



(Fig. 20) Magdalenian Paleolithic base-reliefs of ibex in the Abri Bourdois at Angles-sur-l'Anglin (Vienne – Austria). <http://en.wikipedia.org/wiki/Roc-aux-Sorciers>



(Fig. 21) A deeply incised or grooved rock engraving from the valley of the Draa (Morocco), <http://www.answers.com/topic/draa-river>



(Fig. 22) Naturalistic Style: Bull with marks on chest (Lascaux, Dordogne, France). <http://www.krinklewood.com/images/lascaux.jpg>



(Fig. 23) Realistic style (Lascaux, Dordogne, France). http://home.earthlink.net/~allison.ryan/NESTM/study_guide.pdf



(Fig. 24) Bichrome schematics at Mkoma Rock Shelter (Zambia). <http://www.spirit-of-the-land.com/exhibitions/july2005.ht>



(Fig. 25) Abstracted prehistoric rock art at Pilila Azungu (The Hill of the White Man), (Kalemba, E Zambia). <http://www.spirit-of-the-land.com/exhibitions/july2005.ht>



(Fig. 26) Geometric headless anthropomorphic figure
Prehistoric Native American pictograph (site no. 3PP0142,
Arkansas, USA). <http://arkarcheology.uark.edu/rockart/index.html?pageName=Show%20Advanced%20Rock%20Art%20Image&Image=1575>

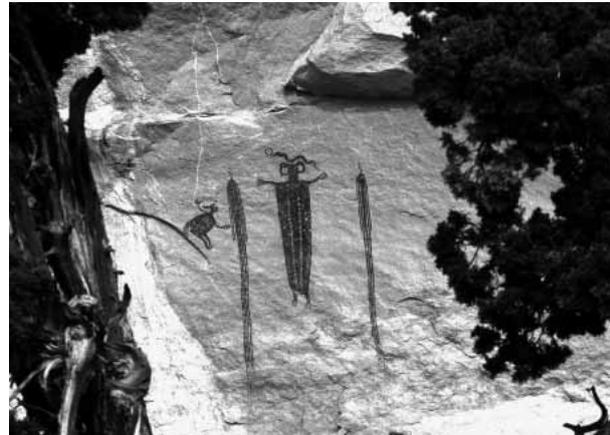
III.4: Rock art ... Why? (Figs. 27-34)

Various purposes may stand behind the creation of this longest continuing art tradition. The following is an attempt to summarize the main purposes that may have led prehistoric societies to producing rock art images as suggested by the many theories that aimed to explain the intention or the function of this artistic tradition depending on its location, age, and the type of image:

- 1- Rock art images probably had deep cultural and religious significance for the societies that created them.



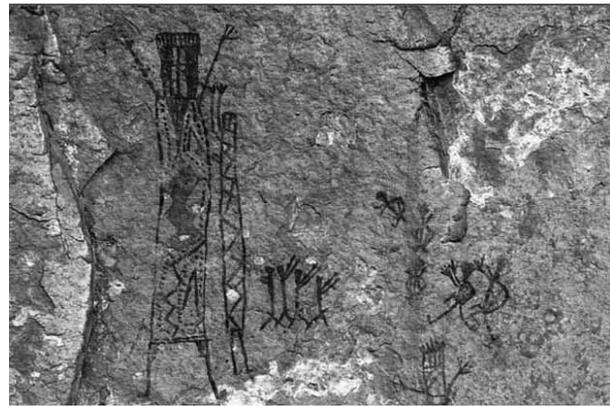
(Fig. 27) Wounded bison attacking a man (Lascaux, Dordogne, France). http://artchive.com/artchive/C/cave/cave_painting_wounded_bison.jpg.html



(Fig. 28) San Rafael Swell Panel 1
Archeologists think much (not necessarily all) rock art was linked with ritual activity. <http://www-personal.umich.edu/~bcleer/rockart/rawallpaper.html>



(Fig. 29) The Great God of Sefar, on the rock art trail in the Sefar Lower Maze Area <http://naturalarches.org/tassili/rockart.htm>



(Fig. 30) Toca do Morcego Site - Serra da Capivara – PI (Brazil). <http://www.ab-arterupestre.org.br/>

- 2- Many of them are thought to represent some kind of not-yet-fully understood symbolic or ritual language.
- 3- Rock art images also appear to be a local or regional dialect of the tribes or the societies that created them.
- 4- They might also have been a by-product of other rituals.
- 5- Some rock art images are thought to be astronomical markers, maps, and other forms of symbolic communication, including a form of “pre-writing”.

- 6- Some of them seem to refer to some form of territorial boundary between tribes, in addition to possible religious meanings.
- 7- Other theories suggest that rock art was made by shamans in an altered state of consciousness, perhaps induced by the use of natural hallucinogens (drugs, migraine and other stimuli).
- 8- Rock art images were made for a decorative purpose (art for art’s sake).
- 9- Rock art paintings and engravings served for a commemorative purpose.



© Jim Zintgraff
(Fig. 31) Panther Cave, the Rio Grande, the Lower Pecos region, Texas . <http://www.rockart.org/gallery/rock29.html>



(Fig. 32) Xique-Xique I Site - Carnaúba dos Dantas - Seridó RN (Brazil). <http://www.ab-arterupestre.org.br/>



(Fig. 33) Winkler's Site 26, the Eastern Egyptian Desert. <http://touregypt.net/teblog/egyptologynews/?p=2967>

Whatever the reason for executing such paintings and engravings and the functions that rock art served (e.g., social, cultural, or psychological), prehistoric artists



(Fig. 34) Zarzora, the Western Gilf Kebir. <http://www.fjexpeditions.com/desert/rockart/newsite/NS8.jpg>

shaped their artworks to convey ideas, thoughts, and experiences regarding their world view. These depictions undoubtedly reflect the cultural landscape during prehistory. Rock art, then, argues for a more integrated social landscape in which ritual and economic activities merge with artistic creation. Rock art, as reflected in its thematic content, also illustrates a considerable part of the physical landscape. This type of art should be regarded by anthropologists and archaeologists as the only 'elementary and complete record' of the history of prehistory; its 'pictorial chapters' comprise behavioral, ideological, religious, economic, social, political, ethnological, artistic, faunal, environmental, and ecological history- which are written and instrumented only in 'an artistic language'.

Notes:

- 1 A term suggested by Pericot and Breuil to refer to rock engravings in North West of the Mediterranean peninsula. See: E. Ripoll-Perelló, 'Proceedings of the Wartenstein Symposium on Rock Art of western Mediterranean and Sahara', in: L.P. Garcia, E. Ripoll-Perelló (eds), *Prehistoric Art of The Western Mediterranean and the Sahara*, vii-xii (New York, 1964), x.
- 2 A term originated from India which means early art or palaeoart of all forms. See: O. Odak, 'A New Name For A New Discipline', *Rock Art Research* 8:1 (1991), 6.
- 3 A term suggested by Kumar and modified by Odak for 'Rock Art Studies' (RAS) where the first P would represent pictographs, and the second P would represent

- petroglyphs, E would stand for engravings on rocks, and F for figures on stone. See: Odak, *Rock Art Research* 8:1, 7.
- 'Epipentology'- which refers to the study of paintings and engravings on exposed rock outcrops, walls of buildings, mobiliary objects, etc. - is also suggested as term to replace the phrase 'Rock Art Studies' (RAS).
- 4 W.T. Harris, F.S. Allen (eds), *Webster's New International Dictionary Of The English Language* (London, 1918), 1842.
 - 5 *Webster's Reference Library Concise Edition Encyclopedia* (New Lanark, 2002), 37-38.
 - 6 Harris, Allen (eds), *Webster's New International Dictionary Of The English Language*, 129.
 - 7 P. Bahn, *Bluff your way in Archaeology* (West Sussex, 1989), 62.
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