History of Research in the High Atlas. Past and Present of Research in the Oukaïmeden Valley

Historia de la Investigación en el Alto Atlas. Pasado y presente de la investigación en el Valle de Oukaïmeden

Alessandra Bravin

Marrakesh, Morocco cercid@menara.ma

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ABSTRACT

The present paper gives a brief account of the history of rock art research in Morocco from the late 19^{th} century to the present, with special emphasis in two periods: the French colonial protectorate and the post-colonial period, after the Morocco independence in 1956 and the creation of the Moroccan Heritage Institute in the mid 80's, with special attention to the seminal work of the French researcher Jean Malhomme.

KEY WORDS: rock art, weapons, zoomorphs, anthropomorphs, Libyan-Berber.

RESUMEN

El presente artículo ofrece un breve resumen de la historia de la investigación del arte rupestre de Marruecos, desde fines del s.XIX a la actualidad, con énfasis especialmente en dos periodos: el del Protectorado colonial francés y el postcolonial, tras la independencia de Marruecos y la creación del Instituto de Patrimonio de Marruecos a mediados de los años 80, con especial énfasis en el trabajo pionero del investigador francés Jean Malhomme.

Palabras clave: arte rupestre, armas, zoomorfos, antropomorfos, Líbico-Bereber.

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Introduction

Moroccan Rock Art is distributed according to the geophysical characteristics of the environment. Thus, it would be correct to speak of a pre-Saharan area and a mountainous area. The first one stretches southeast and northeast and over the southern surroundings of the Anti-Atlas, near the Draa River and its tributaries. The majority of the art motifs of this area depict hunters and wild animals, as well as bovines, from which we can deduce the relevance of pastoralism. The mountainous area occupies the central Atlas with three large assemblages: Oukaïmeden, Yagour and Tizi 'n Tirghiyst plateaus. The most common and frequent motifs represented in this area are metal weapons, daggers, halberds, axes or scutiforms, along with depictions related to wild or domestic animals.

The first rock carvings were discovered in the Saharan area. In 1875, Rabbi Mordechai Aby Serour -born in the Akka region, in Southern Morocco- was given the task of travelling all the southern regions of the country by the Geographical Society of Paris. During his journey throughout the southern region of Goulimine he documented several rock carvings and sent 68 tracing paper copies to France, which were published the following year by the French geographer Duveyrier. At that time, European colonial interests were focused mainly on African natural resources, and many exploratory expeditions were organized. In the aftermath of one of these expeditions organized by Germany, Lenz published in 1884 his travel notes, mentioning the carvings that he visited near Fam el-Hisn, in Southern Morocco. Shortly after that, Douls -another French travelerpointed out the presence of hippopotamus carvings in the *Chevika* valley. That was the last time those carvings were ever seen.

The Protectorate period

In 1912 was established the French Protectorate over the majority of Moroccan territory, while the Spanish Protectorate prevailed in the Northern Rif and the southern area of the frontier with Mauritania. From the beginning, the French Protectorate was especially interested in issuing regulations related to the field of archaeological research, which were immediately submitted to the authorization of the proper authorities (Skounti *et al.* 2003). This lead to numerous finds -sometimes fortuitous- of rock art sites, usually by civil or military government employees in charge of the administration of the most isolated corners of the country. These sites were also discovered by schoolmasters and

teachers who were passionate about archaeology and antiquities.

For example, three rock carving assemblages in southern *Tafraout* were discovered by an officer of the French army (Klug 1939). Other discoveries were made in the thirties, always as a consequence of the French military presence in the southern regions. In 1939, the archeologist Ruhlmann -Inspector of Prehistoric Antiquities- published the first "state-of-the-art" work on Moroccan prehistory and rock art (Ruhlmann 1939). In this book he described 24 rock art sites and presented pictures of several carvings that had been gone over with chalk, according to the techniques used at the time.

Research was also active in the northern and southern areas under the Spanish Protectorate In 1941, a work on the rock shelter with carvings in the *Beni Issef* region -30 km east from *Chefchaouen*, Southern Rift Valley- was published (Garcia 1941). Also, work on the rock art and the prehistory of the Saharan provinces that were part of the Spanish territory at that time was published by Almagro Basch, who not only made known the rock art of these regions, but also its place within the Prehistory of North Africa and the Sahara (Almagro 1946).

The fifties were a decade of intense activity, both for rock art research and archaeology. Pre-Islamic burial mounds were excavated in the southeast (region of *Erfoud*), while the *Taouz* site revealed the presence of a great number of engravings representing schematic carts (Meunie and Allain 1956). The research of Lafanechère on the prehistory of the *Tata* region and its rock art sites -even a small rock painting assemblage- was published in 1952, 1953 and 1954.

Also, Abbé Glory discovered rock paintings in the *Amzri* site -about 50 km to the east of Marrakesh- and excavated this site, located below the rock shelter (Glory 1955). The lithic industry documented there had a particular typology and was named "*toulkinian*". It was characteristic for presenting pyramidal trihedrons. Later, several datings obtained from the site located this industry at around 4300 years BP (Bayle de Hermens *et al.* 1984).

High Atlas rock art was also discovered during this decade. It was Pinguet -a teacher in *Licée Lyautey* in Casablanca- who pointed out the existence of rock carvings in the Oukaïmeden plateau to Antoine, Prehistoric Antiquities Inspector in Morocco, who in turn, asked Jean Malhomme to verify this information "in situ". Thus, the study of rock art in Oukaïmeden firstly, and later in *Yagour* and other important High Atlas sites began thanks to the work of a teacher assigned to Marrakesh.

Malhomme's first publication goes back to 1950. It aimed to study the carvings discovered by the

teacher from Casablanca, thus he named the carvings the Pinguet "little man" and "circle". Malhomme published 28 more papers until his death in 1963. His research broadened to the Yagour and Tizi 'n Tirghiyst plateaus, which lead to two publications in 1959 and 1961, respectively. These constitute the two volumes of his "Corpus des gravures rupestres du Grand Atlas" (Corpus of High Atlas Rock Carvings). This corpus consists essentially of a collection of copies and pictures. The text mainly contains indications on how to locate the sites and the carvings. It is easier to understand Malhomme's ideas through his short papers and his notes. Particularly, in 1954 he pointed out for the first time the presence of three small copper objects and other items of knapped flint from a test pit performed by him in the Oukaïmeden plateau. In 1958-59, he formulated the hypothesis that some of the carvings represented human figures surrounded by weapons or hit by arrows, that is, sacrificial scenes of humans that he denominated "Les suppliciés" (the tortured men). In 1958-59 he analyzed the engravings and identified six different carving techniques that he used as chronological indicators whenever they were applied to represent the same motif. After Malhomme, one of the techniques anticipates the use of a metallic tool, the gouge. In 1960 he published detailed pictures of "man with inscription" and proposed the hypothesis that this character and the inscription belonged to the "Bronze Stage II", after analyzing the technique and the context of this depiction. Since Malhomme had always stated that his real goal was not to interpret the carvings he discovered, but to publish as many of them as possible, he never explained the reasons why -in his opinion- some sites could have been used as worshiping places in the past, and consequently the carvings had a religious or at least symbolic meaning. Maybe he was captivated by the magnificence of these sites and the fact that, at that time, the specialists considered that discs and carts were the symbols of a solar cult. However, some of those discs were already being considered as shield representations.

Given the work conditions and the state of rock art research at that time, J. Malhomme's work still remains valid.

Lithic industry of Oukaïmeden was published by Antoine (1954) who collected nearly a thousand surface finds from several sites. Forty years later, his study was taken over by Rodrigue (see below) who identified this industry as a *toulkinian* type, studied by Glory in 1955.

Glory was in the *Tizi 'n Tirghiyst* mountain pass (Jebel Rat) and published his finds in 1953. These mainly referred to the carvings of the mountain pass, paying special attention to the depictions of horse-

men and infantrymen. He could identify weapons (points and knifes), horsemen, abstract motifs and had no doubts when attributing the large decorated discs to "shields with bands in the base and a central button in the handle" (Glory 1953:175).

During the years when Malhomme travelled the High Atlas plateaus, many specialists were still convinced that metallurgy was not present in Northern Africa until a much recent period, and thanks to the Phoenician seafarers. Most of the specialists basically considered that the proto-Berber people leaped directly from the Stone Age to the Iron Age. Malhomme's discoveries, verified by the exhaustive revision of the archaeological documentation known up to that time, allowed specialists like Camps (1960, 1992) and Souville (1964, 1986) to change such a belief and state that Northern Africa had also had a Copper and Bronze Ages. Among the metallic items unearthed in Moroccan sites, there is a bronze axe published in 1964 by Souville, with a fan-like shape, that allowed him to compare it with the axe carvings in the High Atlas recently published by Malhomme. The Wad Akrech axe can be associated with the *Argaric* Bronze axes (Souville 1964) and the halberd found in the megalithic necropolis of El Mers can be related to the "Carrapatas" type (Schubart 1973). Nevertheless, the sword from the Larache estuary, near Lixus, is close to the Rosnöen type (Ruiz-Gálvez 1983).

First years after the Independence

The Oukaïmeden and Yagour rock carvings were analysed by Jodin in 1964 and 1966 respectively. This specialist had travelled the whole plateau visiting the places described by Malhomme in his Corpus, and proposed a stylistic synthesis based on the comparative study of North African rock art. He pointed out the stylistic affinities with the "Tirout style" and "Ksar-el-Amar style" (Jodin 1964:102) and created two new stylistic groups. The first one was the "animalistic Libyan-Berber style" (ibidem 1964:104) characterized by tabular and schematic shapes, infrequent in Yagour. The second one was the "Yagour style" (ibidem 1964:107) and included zoomorphs of several sizes, depicted by carefully picking the body completely, mainly represented in pure profile. He also expressed his doubts about the six different techniques described by Malhomme, which he thought to be only two: different combinations of picking and abrading. In the chronology he proposed, the Yagour plateau engravings dated from the first millennia BC. The "Ksar-el-Amar style" in particular, dated from the second half of the first millennia

BC, as well as the "man with inscription" and the first horsemen depictions.

In his 1966 publication, Jodin stressed the geophysical and anthropological characteristics of Oukaïmeden grasslands, frequently used by transterminant shepherds, suggesting that the livestock displacements were also common practice in ancient times. He integrated the knowledge of the engravings with unpublished documentation and took over the previous hypothesis stating that a semicircular edged gouge was used to carve some of them.

However, it was Simoneau who relieved Malhomme. Simoneau was also a teacher in the Lycée Mohamed V of Marrakesh, just as his predecessor. He also travelled all the plateaus, including the *Tizi* 'n Tirghiyst plateau, only superficially explored by Malhomme. Between 1965 and 1970, he published seven papers related to the High Atlas. In 1967 (Simoneau 1967a and 1967b) he studied the rock art motifs and associated them with the social and economical role of the seasonally used high mountain pastures, underlining the abundance of water in the Tizi 'n Tirghiyst plateau, a fact unnoticed by Glory. He was also the first to propose the existence of a relationship between the Saharan and mountainous regions on the one hand, and the mountains and the Mediterranean Sea - particularly the Iberian Peninsula - on the other hand. Nevertheless, his religious perspective pervaded his interpretations of the carvings, especially in a paper entitled "Protohistoire religieuse du Jebel Rat" (Religious Protohistory of Jebel Rat) published by Simoneau in 1975. This was the last paper he devoted to the carvings in the plateaus. In this paper he considered the rock carvings surrounding the mountainous massif to be the first manifestation of a mountain cult that survived until the present days (Simoneau 1975). In Nouvelles recherches sur les gravures rupestres du Haut Atlas et du Draa (New Research on the Rock Carvings of the High Atlas and Draa) (Simoneau 1968-1972), he analyzed the daggers and created a typological record that was actually a collection of samples of many motifs that he compared to other shapes of the Near East. With this collection he proposed a symbolic view of the weapons associated to the beneficial but also harmful role of fire. During the following years, Simoneau's interest in rock art focused on Southern Morocco. His knowledge of most of the Moroccan rock art areas allowed him to publish his Catalogue des sites rupestres du sud-marocain (Southern Moroccan Rock Art Sites Catalogue) (Simoneau 1977), two years before his death. This catalogue remains a work of reference.

Chernokian undertook the typological study of the High Atlas halberds for the first time in 1979. The author himself explains here the reasons of this choice:

Halberds -a weapon easy to identifyseemed to have particularly productive dating possibilities (to J. Malhomme, AN). Halberds are considered as real index fossils that allow the author to date the majority of the High Atlas representations from the II Iberian Bronze (Early Bronze Age). Later, many authors adopted Malhomme's conclusions, but as far as we know, an accurate study was never undertaken. It also seemed interesting to try a systematic and detailed approach to these representations of weapons to know whether there was the possibility to go beyond Malhomme's very superficial exam and collect more accurate information about that enigmatic Moroccan Bronze Age (Chenorkian 1979: 2).

At the end of his study -essentially based on a methodology of quantitative measurements and also measurements of the blade-handle ratio- he verified what Malhomme had only suggested. Chernokian could prove that the designs of some halberd carvings from the High Atlas belonged precisely to the "El Argar" or the "Carrapatas" types. Nevertheless, his study did not include any chronological proposal. According to the author, although the halberd carvings were contemporary to El Argar culture, no information existed about the velocity of the transmission of objects or for how long this weapon had been used.

Chernokian deepened the 1979 study by broadening the metallic weapon assemblage represented within the Western Mediterranean rock art sites. This was the subject of his thesis, published in 1988. In it, the author not only studied halberds, but also daggers, axes, points and shields from the Oukaïmeden, *Yagour* and *Tizi* 'n *Tirghiyst* plateaus, as well as the horsemen depictions from the latter site (Chenorkian 1988).

The reason to include horsemen depictions in this study was that some of the weapon carvings -specially the points- were very similar to those considered as "protohistoric". Thus, the possibility of the existence of this phase in the Atlas could not be excluded.

Malhomme's *Corpus* could not but be the starting point of this study, both regarding to the motifs and the engraving technique. However, Chernokian (1988) simplified the motifs into two categories: figurative and non-figurative. The first one included weapons, animals and human figures. Regarding the techniques, the author (*ibidem* 1988) only con-

sidered the presence or absence of abrading, and he defined the absence of it as picking technique. In his view, this technique covered "the whole percussion spectrum" (Chenorkian 1988: 38). Firstly, he established the typology of the different weapons depicted on the rock carvings using the same methodology that he had used for the halberds. Then, he compared them with real objects to accurately identify the real item represented there (i.e., halberds of "El Argar" or "Carrapatas" type). Some of the halberd and dagger types did not have an equivalent in the Iberian Peninsula, so he proposed that they were an autochthonous development. His chronological proposal is also a three-phased period. The first one is characterized by "El Argar" or "Carrapatas" halberd representations, guardless daggers, foliaceous points and rectangular shields. The second phase

> would mean a higher degree of integration of Mediterranean Bronze materials into the Atlas environment (Chenorkian 1988: 338).

The presence of rounded shields with jagged edges, daggers with prominent guards and triangular points is characteristic of this phase. The third phase would be represented by podomorph and horsemen carvings (*ibidem* 1988). In conclusion, Chernokian keeps a careful approach to the chronology, insisting on the fact that the diffusion speed of the real objects that were the models to the High Atlas carvings remains unknown. In his opinion, any proposal would be purely theoretical. Finally, he tackles the difficult question of the Azib 'n Ikkis inscription (Yagour). The inscription was carved in a cartouche placed inside a human figure that seemed to belong to the oldest context of the plateau. The depicted man and the inscription seem to belong to the same period. Nevertheless, such an ancient dating was not possible in his opinion (*ibidem* 1988). Thus, he proposed a more recent date for the human figure and the inscription than for the rest of the similar carvings. In his conclusions, Chernorkian (1988: 348) emphasizes the outstanding community values shared in the Mediterranean Sea during the Metal Ages, as well as the synchronic and analogous evolution in the countries he studied.

Between 1972 and 1993 six papers devoted to the High Atlas rock art were published by Souville (1964 y 1965a). He was interested in Moroccan prehistory and particularly in the probable existence of contacts and relationships between the latter and the Iberian Peninsula. As mentioned above, he specially insisted on the existence of an Age of Metals in Morocco (Souville 1965b). In collaboration with Lambert (Lambert and Souville 1970) he published

the objects unearthed during the excavation of a megalithic necropolis of the Middle Atlas, proving the extension of the Punic and Carthaginian influence far from the Moroccan coasts. His interest in prehistoric rock art was a completely logical phase during the evolution of his research. His first published work was focused on the carvings known as "foliaceous axes" (Souville 1972). This was followed by a series of short monographs analyzing certain aspects of the rock carvings and using Malhomme's *Corpus* as a reference. In 1988-1989 he published a first study devoted to the anthropomorphic representations in Oukaïmeden. In 1990 he presented a study about the decorated discs and other enigmatic motifs found in the High Atlas. In this study he proposed the hypothesis that these discs were, at the same time, representations of the sun and a shield, something already suggested by Chernokian in 1988. In 1991, the motifs from the High Atlas were statistically contrasted for the first time. He also studied the cultural elements related to the anthropomorphic figures and the enigmatic motifs (Souville 1992) and the singular anthropomorphic representations of the so called "suppliciés" (Souville 1993). In his work, the study of the High Atlas rock art was based on the use of a priori conceptual categories, such as religion, worship and magic, that he used without any archaeological verification.

From the establishment of the first Moroccan Heritage Institutions to the present years

The creation of the National Institute of Archaeological Sciences and Patrimony (INSAP, French acronym) by the Ministry of Cultural Affairs in 1985 played a crucial role in Moroccan archaeological research. This institution is in charge of research and training archaeologists and is formed by four departments: Prehistory, Archaeology of the Ancient World, Islamic Archaeology and Anthropology.

The National Rock Patrimony Park (PNPR, French acronym), a research center devoted exclusively to rock art was created in 1995. The main goals of this center were to create an inventory and to study and protect rock art sites. Regarding the High Atlas, a study was published in 1998 (Salih *et al.* 1998) by the PNPR research group. This work was focused on rock art and the pastoral economy of Oukaïmeden and presented the geophysical, botanical and archaeological features of the plateau. The art was analyzed according to the performing techniques and the represented motifs. Three kinds of techniques were documented: picking, hammering and polishing. The first two can be distinguished by the tool used to execute them. The picking tech-

nique was probably obtained "using a pointed object that caused a whole spectrum of empty gaps" (Salih *et al.* 1998: 277), while the hammering technique was executed using a lithic, or -more probably- metallic tool.

Regarding the motifs, the statistical analysis places weapons, zoomorphic and anthropomorphic figures in a decreasing order. Also, the authors established their own typology for shield-like forms, daggers and halberds. However, they barely described the anthropomorphic and zoomorphic figures. In the conclusion of this study, the authors (Salih *et al.* 1998) proposed the hypothesis that the plateau had been frequented by transhumant shepherds since Neolithic times. Such practice would have reached its greatest development in the following Metal Ages.

The first work of Rodrigue -teacher in the *Lycée* de Marrakesh - was published in 1986. It was devoted to the unpublished carvings from the "Elephants' Frieze", that contained engravings of elephants, a rhinoceros and one inscription. During the following years, he undertook the overall study of the Oukaïmeden and Yagour engravings with new discoveries. In 1998, he published "Art rupestre du Haut Atlas marocain" (Moroccan High Atlas Rock Art) continuing with his PhD thesis, which comprised the corpus of all the carvings known at that time, as well as those discovered by him. Taking Chernokian's study as a starting point, Rodrigue simplified and modified the typology of the weapons. He kept the three phases suggested by Chernokian and for the first time he proposed specific dates: He located the first Bronze Age in the High Atlas between 1500 and 1200 BC. From that date on started what he called the Atlas Bronze Age, which would last until 600 BC. The depictions of vague horsemen and infantrymen, that appear in *Tizi 'n Tirghiyst* would have been made between the fifth century BC and the Christian Era.

This prolific author published without interruption works on a diversity of topics related to the Atlas Mountains, such as zoomorphic figures (Rodrigue 1994a, 1995 and 2006), weapons (Rodrigue 1991, 1992 and 1994b), agricultural tools represented in the engravings (Rodrigue 1995-1996) or about new finds (Rodrigue 1994c and 1998). He wrote as well about two new sites with lithic industry (Rodrigue 1996) where, continuing Antoine's work (1954) he identified *Toulkinian* industry made up of backed bladelets, geometric microliths and trihedrons.

Searight devoted several publications to High Atlas rock art in the nineties. The first one (Searight 1992) studied the clothes and adornments of the anthropomorphic depictions of the High Atlas. Hu-

man figures were studied for the first time from a paleo-ethnographic approach. However, the results were limited due to the scarcity of parallelisms with the ornamental elements of the characters. A second work intended for the general public (Searight and Hourbette 1992) included suggestions of possible touristic visits to the main rock art sites of the High Atlas. In 1994, she published a study on a new site on the western slope of *Jebel Rat*, with vague horsemen representations (Searight 1994). Finally, in 2004 she published the first overall study of Moroccan rock art (Searight 2004). In this work, she divided Morocco into nine rock art areas: the High Atlas was area number 3.

This work consists of a detailed study of four sites, in particular the *Tizi 'n Tifina* site in Oukaïmeden, doing a huge effort to synthesize and encompass a great number of general aspects useful to classify rock art, such as climate changes, Moroccan prehistory or archaeozoological information. The author dispensed with interpretative categories such as "worship place", "magic" or "solar signs". On the other hand, she provides a chronological hypothesis and an analysis of Moroccan rock art in the context of Northern Africa. According to the author, Moroccan rock art appeared in the middle of the Third millennium BC (Searight 2004).

The results of seven test pits excavated in the Oukaïmeden Valley were published in 2008 (El Graoui et al. 2008). Below the Elephants' Frieze (Rodrigue 1987) two fire hearths were found. A radiocarbon dating of 2680±35 cal BP was obtained from the charcoal of the first hearth, that when calibrated for 2σ is equivalent to a range of 900-790 cal BC. Regrettably, it is not associated to any diagnostic item and it is difficult to know what kind of activity was developed there and when it took place. A second hearth -also without associated datable materialprovided a dating of 2010±35 cal BP or to the range 110 cal BC-80 cal AD², also without a conclusive context. The authors highlighted the impossibility of establishing a relationship between the dated events and the carvings from the Elephants' Frieze (El Graoui *et al.* 2008:108).

Between 2002 and 2007 the question of the classification and chronology of High Atlas rock art was tackled by El Ezzani (2002, 2004a, 2004b, 2006a, 2006b, 2007) in his doctoral thesis, using a methodology that remained unpublished in that field: a semiotic analysis inspired in structuralism and linguistics. At first, he used this analysis only in anthropomorphic figures. After Malhomme and Rodrigue's *Corpora* were published, El Ezzani first created a database. Then, he began to establish applicable evaluation criteria for the aforementioned motifs. From that analysis he defined six groups, in-

cluding the so called "violin idols" as Group I. The result of this typology is a chronological proposal that locates the first rock art at around 1600 BC, with anthropomorphic figures with arms uplifted (Group III), and the last representations at around the Christian Era, with small figures of the Libyan-Berber type (Group II).

The search for new sites resulted in the discovery of unpublished sites in *Yagour* (Hoarau *et al.* 2008; Ewague *et al.* forthcoming) and the *Telouet* region (Ewague et *al.* 2010) holding representations of rhinoceros, weapons, carts and anthropomorphic figures.

Finally, another project parallel to the ARPA project -the results of which are included in this monograph- has begun. It is named "Carved land-

scapes: 4000 years of transhumance in the High Atlas pastures" (Auclair *et al.* 2013:294). This initiative is focused on the relationship existing between the territory and the transhumance paths. This preliminary project proposes a periodization of rock art, based on the so called "graphic markers", which are: 1) Motifs inherited from the Saharan and Pre-Saharan Neolithic; 2°) "The Atlas Man" and his collection of metallic weapons; 3) Decorated discs with spears and carts; 4) Stylized horsemen with rounded shields; 5) Curved daggers and fibulae.

The second goal of the study is to analyze the communal pastures or "agdal", as well as the associated traditions, beliefs and values, because the authors propose the hypothesis that transhumance was practised at the time when the carvings were made.

Notes

- 1. In French, "haches peltes".
- 2. Program: OXcal 3.10.