

THE SHEEP FROM THE SHELTER OF THE *BARRANCO DE CERRO MORTERO* CLIMBERS (ALACON, TERUEL) AND THE PRIMITIVE EVOLUTION OF THE OVINE SPECIES IN SPAIN

LA OVEJA DEL ABRIGO DE LOS TREPADORES DEL BARRANCO MORTERO (ALACON-TERUEL) Y LA PRIMITIVA EVOLUCION DE LA ESPECIE OVINA EN ESPAÑA

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SUMMARY

A rupestrian painting is described that represents, with notorious perfection and realism, a sheep showing a precise fleece and bare legs. It is surrounded by hunting and harvesting scenes. The prehistoric ovine figures are really scarce in general, specially in Spain, for which this one represents a notorious importance, being dated between 4000 and 3000 b. C. Its possible origin is analyzed.

It has been compared to other doubtful ovine painting (Las Batuecas-Salamanca). The real appearance of sheep in Spain, the different entrance routes, evolution and spreading of the species, until reaching the ovine population of the preroman period, are studied.

Is emphasized the interest of studying predomestic forms in different species and their later evolution based on rupestrian paintings and bones from pre or protohistoric beds.

realismo, portadora de vellón bien preciso y patas desnudas, rodeada de escenas de caza y de recolección. Las figuras prehistóricas de ovinos son realmente escasas en general y muy particularmente en España, por lo que ésta posee una notable importancia, pudiendo datarse entre el 4000 y 3000 a de J.C. Se analiza su posible origen y se compara con otras representaciones dudosas de ovinos (Las Batuecas-Salamanca), estudiando la época real de aparición de la oveja en España, sus vías de entrada, evolución y difusión, hasta la notable población ovina de la época prerromana.

Se resalta el interés de pinturas rupestres y restos óseos de yacimientos pre o protohistóricos para el estudio del origen de las formas predomésticas en las distintas especies y su posterior evolución.

RESUMEN

Se describe una pintura rupestre que representa una oveja con notable perfección y

INTRODUCTION

The non existent ovine appearance in rupestrian ovine painting seems almost paradoxical, as much for the

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abundant and varied samples of other species as well as the enormous importance which in that period the sheep acquired in our country.

Precisely, and in one of those paintings, the sheep from the shelter of the Barranco Mortero Climbers (Alacón-Teruel), not a very well known figure and hardly commented (Ortego, 1948 and Almagro, 1956), we are going to try and offer a truthful theory that explains these facts.

DESCRIPTION OF THE PAINTING

The sheep painting is not well conserved at the moment. Nevertheless, due to the exact calculations of Ortego (1948) on the other existent representations in this

shelter (**figure 1**), some of them extremely difficult (groups of hunters), and after a personal and direct revision, we admit to find trustful the ancient tracing, upon which we shall develop our study.

The description of Ortego (1948) is very exact and precise: *In the flat space in of the lower part we are surprised by a tall sheep, that is no different from some species known today. It's colour is the same as that of the previous bull, and the silhouette is admirably obtained.*

The ovine figure, of a dark chestnut colour, is represented with notorious perfection and realism, being, without a doubt, classified within the *Ovis aries* species.

The animal is in a static position, without nearby hunters that could be

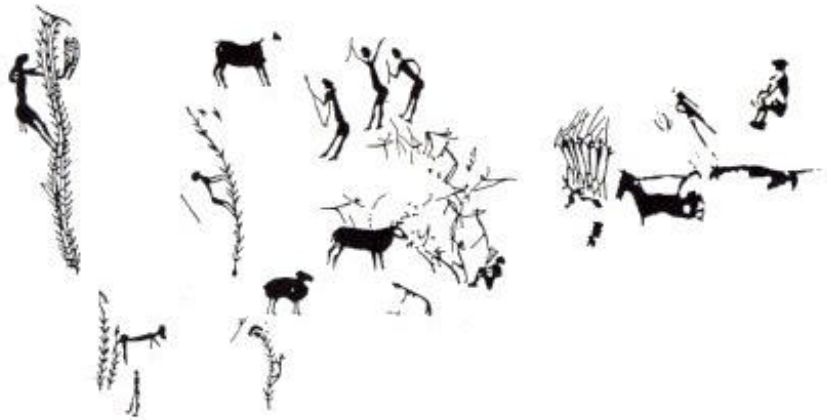


Figure 1. *The rupestrian painting of Alacón (Teruel).* (La pintura rupestre de Alacón (Teruel)).

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attacking it, which could indicate that it is not a wild animal. In the shelter there are different gathering scenes (the climbers), honey and fruit and also a female figure that seems to be gathering grass or another kind of ground product. All of this environment could give us the idea of a semidomesticated animal, from which mainly wool, meat and skin would be used.

Another theory, perhaps less convincing, is that the sheep were still very scarce, receiving therefore a single appearance, even having a religious meaning.

Many caprine paintings are observed in the neighbour shelters, but all of them wild and in hunting scenes, so neither did the goat appear domesticated in this period.

Respecting the ovine characteristics represented, it is difficult to diagnose their possible origin (**figure 2**).

At first the main point is the presence of *wool* that covers the body, the fleece is dense and short. The head with a very long facial portion (dolichoprosopy) shows a straight frontal profile and an irregular supranasal (a possible defect of the painting), observing a lumpy part which makes you doubt between the presence or not of wool or horns. Although we think that if it had horns the artist would have painted them in a more evident way. The tail is brief, because it is so or because it has disappeared in the painting, being this a very probable fact, because we don't believe that in that period tail amputation was taken out as it is



Figure 2. *Sheep detail in the rupestrian painting of Alacón.* (Detalle de la oveja en la pintura rupestre de Alacón).

today in a routine way, this would indicate a notable domestication level. The limbs have no wool, they are long, which corresponds to an unimproved animal and with the necessity to travel long journeys to find food. It also offers an acute cifosis that does not correspond to a cephalic profile, but it could be part of the artist's fantasy when representing the fleece.

Looking at the painting and the characteristics of the area, that even with climatic changes, would not be humid. We don't think that it is an ovine with long and rough wool. It could be almost fine, but its aspect and silhouette does not agree, and this type's appearance in Spain was possibly much later (1200-200 b.C. with the indoeurop invasion).

Even the relatively compact fleece and the head, could make us think about a primitive Merino, without wooly limbs.

In any case it is an evolutioned and semi-domesticated animal, due to the presence of wool. In primitive ovine, european *muflon* or asiatic and nearby derivates, the epidermic covering was mainly pilous with medullary fibres, there was only a short and scarce inner wooly covering. With domestication the hair lost importance and wool density and length gained it, because man aimed for this production and orientated improvement in this simple way.

It could possibly be a hybrid, already advanced, between the muflon (*Ovis ammon musimon*) wild ancestor of our domestic ovine, and already abundant in the mediterranean basin

20000 years b.C., and the primitive sheep, which could explain the short tail (if it was not lost from the painting) the short fleece apparently not rough and even its dark chesnut colour, like muflon or primitive sheep colour.

THE AGE

Diverse theories exist about the time in which the climbers shelter paintings were elaborated. The classics (Brevil, 1912 and Obermaier, 1916) take it back towards the paleolithic age (7 to 5000 years b.C.), today, Beltran (1968 and 1989) situate the paintings in an earlier period due to the presence of animals that are smaller, more numerous and dynamic and, the human figure appearance (4000 to 3000 years b.C.) close to neolithic when observing harvesting scenes, together with traditional hunting ones.

This would be precisely confirmed by the static ovine painting and the presence of wool.

So we find ourselves in a period that is becoming sedentary and where some agricultural activities are starting to develop we shall add to this the fact that domestication was generalized in the spanish Levante towards the third millennium b.C. (Maluquer, 1973), but not as appearance of domesticated animals brought by invading peoples, but more as importing ideas and technology of domestication from coast communications in Levante and the south of Spain, by contact with mediterranean peoples.

In this way during this period the situation of some animal species was

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possibly predomestic on the coast, being more in contact with the outside world. In inland areas, the mountainous barriers of the Maestrazgo made the transmission of these ideas and techniques difficult, for which the paintings observed do not offer such clear samples, if not only signs.

The gathering scenes, in my opinion, are not complex, so they do not show a clear agricultural evolution. The same is to be said about the digging scenes with pointed sticks, that are not such, being a hunting or an animal worship scene.

The sheep could exist as a semi-wild animal or perhaps a semi-domestic one, in reduced quantities (scarce representation) and partially of a muflon hybrid as has previously been indicated.

This does not disagree Ryder's

(1983) theory where a primitive sheep (*Ovis aries palustris* of Rutimeyer or the turf sheep) with a medium length tail (20 vertebrae), reached Spain, already semi-domesticated, towards the V millennium before Christ, starting out from Asia Minor and following the Mediterranean by the north side and coming down, eventually, the spanish Levante coast, spreading later inland (**figure 3**). Thus would explain perfectly the domestication of the sheep towards the fourth millennium b.C. in our Levante, based on the primitive ovine more or less muflon hibrids, with totally fertile offspring as we have demonstrated (Sierra, 1989).

We do not believe that it is a painting of more evolutioned sheep (Copper sheep, *O. aries* of Duerst), of fine wool and a short tail (13 vertebrae),



Figure 3. *Sheep diffusion by mediterranean route until the spanish Levante (Ryder, 1983).* (Difusión de los ovinos por vía mediterránea hasta el Levante español (Ryder, 1983)).

found in Europe during the third millennium, considering the painting previous to this period.

On the other hand we wish to compare this ovine painting to other brief appearances such as *Las Batuecas* (Salamanca) identified as primitive ovine, that are dated about 1700 b.C. (**figure 4**).

In the first place their identification as ovine is doubtful, because they could be caprine (absence of wool, short tail, type of horns, animals in a position with their head up ... etc.).

Nevertheless it's possible that they could be very primitive ovine, muflon type, because of the details previously indicated, although the horns are very separate at the ends and they would all be males. However it would be clear that, although it is a more modern painting, the sheep would be less evolutioned and far from the sheep of Alacón, almost identical to today's sheep.

Does this mean that both paintings, distant in time and space, is showing up the evolution difference of this



Figure 4. *Rupestrian sheep painting in Las Batuecas (Salamanca-Spain).* (Pintura rupestre de "ovinos" en Las Batuecas (Salamanca-España)).

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animal between areas near Levante and far away inland areas? And whilst indicating ovine evolution differences, are we using at the same time an indirect parameter measurement of human evolution, over all intellectual, even in the making of the paintings?

The previous explanation makes us believe that the Alacón paintings must be situated during a more ancient period, as we have already indicated (V to IV millennium b.C.).

Aproving this theory, a wide proto-historic period exists within which the scarce ovine species appearance is maintained in Spain. Consequently, when is the real start to the ovine general diffusion in our country, until reaching the great abundance of the preroman period?

DIFUSION OF THE OVINE SPECIES IN SPAIN

Different theories are found, that don't contradict each other and can even support one another.

At least four ovine entrance route possibilities existed in our country that made a varied base for the future Spanish sheep population, complemented by a possible muflon hybrid:

1. MEDITERRANEAN ROUTE. The first signs of domesticated sheep are found towards 9000 years b.C. in Irak (Zawi Chemi Shanidar) and in Tepe Sarab in Iran, towards 8000 b.C., with a rapid invasion of the Middle east (Turkey, Libanus, Siria and Palestine, towards 7000-6000 b.C.). Precisely from Turkey the diffusion mentioned by

Ryder (1983) takes place between 6000 and 5000 b.C. taking three routes: North, or fluvial, through the Danubium, reaching Poland and Central Europe. South, going down to Egypt and entering Africa in different waves. And last of all, the Mediterranean route (land and sea), reaching Spain and spreading through Levante from North to South (5000 b.C.). It would not be a mass diffusion, but it would be significative to build the primitive ovine population.

This ancient ovine route, was basic (from 4800 until 2500 b.C.) to achieve agricultural and farm economy settlements in Levante, possibly with the turf sheep, either pure or mated to muflon. The Alacón sheep will be a valuable representation of these ancient ovine.

2. AFRICAN ROUTE. Towards 3000-2000 b.C. a notorious climatic change hits the Earth, characterized mainly by drought, which made numerous peoples, migrate and abandon primitive cultivation techniques developed in their initial agricultural settlement. Whilst emigrating, looking for more humid areas, they become almost exclusively shepherds, taking with them all their goods, including animals.

In northern Africa an agricultural and livestock culture of notorious importance had been developed, mainly in Egypt and the near East, so agriculture and domesticated animals were a common practice.

The climatic changes mentioned motivated massive emigrations of agricultural and livestock peoples situated in humid areas of the Sahara

(in the rupestrian paintings of Tassili sheep dated 4000 b.C. appear, that had reached northern Africa 5000 b.C., starting out from the South route mentioned before) and walked towards the North and West some of them settling in mountainous areas (Tunisia, Argelia and Morocco) adequate for livestock and others later reached Spain (1000 b.C.?).

These domesticated ovine spread to the South, Extremadura and Levante, helping to form an ovine population of fine wool and an extense fleece. Ryder (1986) does not agree with this theory, but we don't believe that it should be declined.

3. PYRENEES ROUTE. On the other hand during the second millennium before Christ, a great movement of peoples from Central Europe took place, that reached our pyrenees in different waves along more than a thousand years.

In this way at the end of the second millennium and all through the first millennium b.C. Indoeuropean people appeared in our country taking with them their gage and, of course, their livestock, precisely their sheep. This was one of the massive domestic animal entrances to Spain, mainly happening at the ends of the range (País Vasco and Gerona), leaving clear signs in today breeds (Pyrenees bovine, a descendant from blond bovine of Central Europe) and particularly in our medium wool, white and stub-horned sheep (Rasa Aragonesa, Manchega and Segureña) originated from *Ovis aries ligeriensis* that still offers us similar sheep from our

neighbour France (Prealpes, Blanca del Macizo Central and Lacauene).

These indoeuropean peoples (beribraces, berones, pelendones, suessetanos, gallics, etc.) brought and implanted a mixed type of culture, agriculture and specially farming. Their contribution to the ovine species stands out as we have already indicated and has been proved in arqueologic findings (Beltran, 1960 and Fatas, 1975).

These peoples settled, spaced out, in our territory, from the pyrenees, being responsable for the pyrenees grave culture (fields of urns, with abundant ovine remains) between 1200 and 200 b.C., moving to flatter areas, although they were more arid, until the river Ebro, the Teruel plateau finally reaching *La Mancha*. Leaving behind during their south migration the same ovine type, that through the Centuries and depending on the enviroment and the selective orientation of farmers, gave place to the different breeds and ovine types (Rasa Monegrina, Rasa Turolense, Manchega and Segureña) all of them with the same origen, although with logic differencies today, depending on where they had developed.

This difusion and multiplication is supposed to be notorious for the docility and rustic appearance of these sheep, together with a scarce competition for short pastures from other species, which would explain the strong ovine population that existed in the preroman Iberia (Bronze age).

In this way, Avieno in *Ora Maritima* talks about beribraces, a celtic people that existed in the Maestrazgo and

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Bajo Aragón towards the VI century b.C., mainly with a shepherd culture, and that already in those times moved their herds from winter to summer pastures and *vice-versa*.

So that this ancient ovine population could be under this sort of management (trashumance), previous centuries of diffusion and exploitation were necessary. All this agrees in some way with the ovine population increase in I and II millennium b.C. from the indoeuropean sheep and their multiplication, together with the possible entrance of african ovine mentioned in epigraph 2.

4. THE LEVANTE ROUTE. Finally the fourth entrance route, possibly the less abundant in animals, but very important for its ideas and influence.

On the mediterranean islands the muflon settled millenniums ago (from Cyprus to Corcega and Cerdeña), even remaining an emblem today (Corcega).

This muflon (*Ovis musimon*), originated in Central Asia, did not only reach other mediterranean regions (including Spain) but was also an evolutive base for the primitive sheep, with later matings.

So in the III and II millennium before Christ, and even before, the idea of domesticated sheep could have come about precisely through the Levante rute, influencing this primitive population. Later more sophisticated techniques for agriculture and farming arrived with the phoenicians between the XI and IX b.C., (**figure 5**) bringing different



Figure 5. *Phoenician influence in Spain, with sheep diversity, even african types* (Influencia fenicia en España, con ovinos de diferente procedencia, incluso tipos africanos).

farm animals, originated in the basin (also from different parts of Northern Africa, which would support the African rute theory) and among these the ovine, possibly studs, orientating

production and quality towards commercial interests (another theory about the merino's origin this time agreeing with Ryder?).

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