



■ **Fig. 1** Recreation of a scene of the way of life in the prehistory in the settlement of the Algaba



■ **Fig. 2** Aerial view of the building of the facilities of management of the Center Algaba

The Algaba project in Ronda: an integrated approach to experimental archaeology*

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Introduction

The Algaba project started as the initiative of a group of people from different disciplinary backgrounds who shared the aim of exploring prehistoric knowledge. La Finca Algaba (“The Algaba ranch”) was itself an excellent resource, consisting of woodland with many indigenous animals and plants. This provided an ideal place for archaeological experiment and analysis, education, and the conservation of cultural and natural heritage.

A Prehistoric settlement was reconstructed in the grounds of the Algaba to explore and challenge current theories. As a result of this experiment, educational programmes were developed.

In the mid eighties, an experimental archaeological workshop was created, TAER (Taller de arqueología experimental en Ronda / Experimental archaeology workshop of Ronda), which was formed by a group of people with expertise in different crafts and working methods that prehistoric societies in the south of the Iberian Peninsula might have developed. They participated with the University of Granada’s research team studying the late prehistoric period in the Serranía de Ronda (Málaga).

From the beginning there have been many groups studying prehistoric societies at the Algaba, TAER being one. There were regular archaeological meetings in the province of Malaga, the mounting of the exhibition in La Cueva de las Ventanas (Píñar, Granada) and the reproduction of the archaeological elements for the Centro de interpretación de la Cueva de Los Enebralejos (Prádena, Segovia) (Tarancón *et al.* 2004: 217-226). The Algaba has collaborated with The Ronda Museum and other institutions.

On the basis of these activities and experiences, the Algaba project was formed at the beginning of 2000, culminating in 2004 with the construction of the replica of a late prehistoric settlement, and a resource centre for the dissemination of archaeological knowledge and a critical awareness of heritage and its social value.

An integrated experimental archaeology programme

Experimental archaeology has aroused great interest in our country in recent years, the celebration of the 1st Spanish Congress on experimental archaeology in Santander (Cantabria, Spain) in 2005, is proof of that and; the 2nd International Congress of Experimental Archaeology will be held in Ronda in 2008.

The 1st Congress generated a debate about the role of Experimental Archaeology, which has tended to be applied to educational activities or as a way of promoting alternative tourism, rather than focusing

on the investigative aspect and questioning the nature of Experimental Archaeology. We need a clearer concept of what is Experimental Archaeology and what it means to experiment in archaeology (Moreno *et al.* 2007: 38). This is difficult if we do not distinguish between “experience” and “experiment” (Reynolds 1999: 156-162); that is to say, between experiment in archaeology and experiencing the past. One of the ways archaeologists have understood ancient techniques has been by replicating objects or by imitating prehistoric techniques. Derived from this, and practised by both professionals and amateurs, is the recreation of ancient ways of life for entertainment purposes or as an educational tool. (García 1992: 46-50).

A holistic concept of experimental archaeology requires a complex dialectical relationship between the scientific investigation and its results. Therefore an integrated approach to Experimental Archaeology should also have a social aspect, in that it should be able to transmit the knowledge acquired from its experiments. The Algaba project

* Photographs by Juan Terroba and Javier Perez. Translation by Georgina Richmond and Maria Fernández

focuses on the connection between the experimental work and its educational tours and courses, for instance, in the study and working of polished stone tools. This implies the whole process from the location of the raw material to every aspect involved in the elaboration of the tools needed.



■ Fig. 6 Detail of one of the prehistoric dwelling



■ Fig. 5 The interior of the settlement



■ Fig. 7 Activities of experimental archaeology with stone tools



■ Fig. 9 Experiences of the past with students

The prehistoric settlement of the Algaba

The great numbers of archaeological excavations in the last few years have provided a lot of data of how ancient societies lived. However, it is difficult for the non-specialist visitor to interpret the findings. Therefore, the construction of information centres near archaeological sites has been promoted in recent years.

The reconstruction of a late prehistoric settlement in a natural environment in the Algaba is an attempt to show how humans lived at that time. All the data from the different studies that have taken place in southern Spain has been used.

The Algaba estate is a splendid resource for such a project, with characteristics very similar to what the environment would have been in this area at the end of the Neolithic and Copper Age periods.

The Ronda area is a natural depression surrounded by mountains, crossed by rivers which have formed deep valleys. This, combined with the climate, creates a particular vegetation made up of cork trees, evergreen oaks and all the other oaks present in southern Spain, with Spanish Fir (*Abies pinsapo*) and other pines and the shrubs associated with these trees. Next to the rivers there are poplar and laurel woods.

Minerals are also abundant in the Ronda area, some very particular ones such as peridot stones. Sandstone is the most common in the depression. Ophites, a volcanic stone, are present in Triassic outcrops. Metamorphic stones, such as fibroin stones and amphibolite, are followed in number by gneiss and schist. There are also many outcrops of flint.

The reconstruction of the Algaba settlement started with all the information gathered

from the investigations into the late prehistoric period in the Ronda area. Knowledge from craftsmen and locals was also very helpful, since many of the methods and materials used up until a few decades ago are very similar to those of prehistory.

By reproducing the techniques of construction and handicrafts, testing their functionality, durability and behaviour under real conditions we can obtain a better knowledge of the material culture and lifestyle of these prehistoric societies. Only techniques typical of southern Spain societies were used here.

A place with only a few trees was chosen and surrounded by a 255 m long stone wall with a height that goes from two to four metres. The wall was built in sections, the two exterior faces first and then the middle was filled with stones and clay. The construction technique is called "traba", the flag-stones must be laid over as many other stones as possible. A bio calcareous stone present in the local area was used.

Big flat stones were put on top in order to be able to walk along the top; also on the exterior side there is a palisade 1m high. There are three stairs (without archaeological evidence) and one slope to go up the wall. Three gates were constructed; two of them simply for cattle use. The third one was inspired by the one of a Copper Age settlement of Santa Fe de Mondújar, Almeria, although the entrance had to be wider for security reasons (*Moreno et al. 2007: 42*).

Inside the wall ten dwellings have been built and five are half constructed. These consist of circular or oval bases and small stonewalls, built with a mortar of clay soil, which have been covered with a thatched, wooden roof structure.

Each dwelling contains historic elements such as tools and artefacts, whose elaboration has been based on serious research and documentation (tools of flint and polished stones, basketwork, pottery, tanned hides, copper artefacts, etc.) and a hard clay fireplace.

Outside the dwellings there are different areas designated to the elaboration of these artefacts and other activities such as leather tanning and esparto-grass work.

Everything described here was built in 2004, and opened to the public in 2005. These structures have been exposed to the weather variability of Serranía de Ronda with a temperature of around -10 °C in winter and 40 °C in summer with winds up to 70 km/hour. Rainfall reached 800 l/m². With all these circumstances the materials have hardly deteriorated and the humidity inside each dwelling has been minimal. During winter, when the weather conditions are worse, dwelling entrances were closed and hot embers were used in the fireplace. It is impossible to use fires inside due to smoke and the fact that the construction material is very flammable.

Therefore, we could say that the way the settlement has been constructed follows the archaeological evidence in southern Spain, and with local vegetation. The available roof data is very limited due to the nature of the material; so different dwellings have been constructed using different materials to compare their effectiveness.

Together with the settlement construction, several experimental archaeological programmes have been executed in collaboration with TAER. For example, different attempts at flint knapping have taken place in order to identify techniques used on

archaeological artefacts. The objective is to find out changes that took place throughout prehistory.

After the Late Prehistoric period polishing techniques become common to produce working tools. Stones with different characteristics to the ones used in carvings were used. The local raw material was analysed, as was how the material was obtained and its relationship to its stone type and to the tools produced.

Another main investigation program fulfilled by TAER in Algaba de Ronda are pottery studies. These included the collection related to the local geology and fabrication following mould and rolling techniques and decoration before firing them in an open oven.

Together with these are other investigations related to textile, esparto ("needle grass") and tanning.

Educational Project in Algaba de Ronda

Besides the experimental archaeological programmes described above, Algaba provides a living educational experience of prehistory complemented by environmental education.

People belonging to associations, schools or other visiting groups come to know our installations.

Programmed activities are planned for all groups, which go from a guided visit to the Settlement to hands-on workshops. The Algaba environment offers a recreation of a prehistoric habitat, which is a splendid didactic resource to diffuse prehistoric knowledge. The most common activity is the school visit (adapted to different educational levels) where an explanation about the habitat, subsistence and technology in Prehistory is provided to demon-

strate forms of production that maintain and sustain the natural beauty of the environment without harming it. This explanation is completed by a training workshop. Seminars on different areas of experimental archaeology for specialists to complete their formation and experience take place every so often.

Conclusion

There are other similar projects working in Europe. The Algaba is a splendid resource for promoting education in experimental archaeology; it is an open air laboratory where different groups can investigate the technological and cultural developments of prehistory. It provides a living educational experience of prehistory to people of different ages.

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■ Fig. 3 Aerial view of the prehistoric settlement of the Algaba



■ Fig. 4 The wall and the gate of the settlement



■ Fig. 8 Experimental reproduction of pottery

Summary

Le projet Algaba à Ronda : une approche intégrée de l'archéologie expérimentale.

Le projet Algaba a été lancé en 2000 pour explorer et tester des hypothèses actuelles en matière d'archéologie. En 2004, une partie de ce programme expérimental a consisté en la construction d'une réplique d'un village de la préhistoire tardive, associée à un programme pédagogique.

Das Projekt Algaba in Ronda: Ein integrierter Ansatz der Experimentellen Archäologie

Das Projekt Algaba wurde im Jahre 2000 ins Leben gerufen, um moderne archäologische Theorien zu untersuchen und kritisch zu hinterfragen. Seit 2004 wird – als Teil des experimentellen Programms – die Rekonstruktion eines Siedlungsplatzes aus der späten Urgeschichte errichtet und für diesen Platz ein Pädagogikangebot entwickelt.