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CONTENTS

Traces of fire and pieces of clay: A preliminary approach to landscape through the remains of Neolithic burnt houses

Emília Pásztor

Harmony of the material and the immaterial in prehistoric monuments. Experimental investigation of ancient light and shadow interaction: A case study

Dragoş Gheorghiu

Experimenting technological rituals

M. G. Melis, R. Cappai, L. Doro, L. Manca and S. Piras

Between research and tourism: A case of integrated experimental archaeology in Sardinia

Francesca Oliveri

The role of experiment as an educational approach in maritime archaeology

Between Research and Tourism:
A Case of Integrated Experimental Archaeology in Sardinia

M. G. Melis, R. Cappai, L. Doro, L. Manca and S. Piras

Abstract

This contribution introduces some new aspects of experimental archaeology in Sardinia. The project involves the University of Sassari and a private agritourism business and arose from the company's need to diversify and the university's requirement for a laboratory of experimental archaeology. The product of this collaboration has been the reconstruction of a prehistoric village and its various handcraft activities. The choice of location, which is linked to the extensive wetland at Cabras, is important because this area was intensively utilised during prehistory. Current ethnographic data is making a significant contribution in, for example, the use of plant materials in architectural techniques and for activities associated with the wetland (fishing, mollusc-gathering).
The project has several objectives: scientific (the creation of an experimental archaeology laboratory), educational (to support undergraduate, graduate and doctoral students and to provide learning opportunities for primary and secondary school pupils), tourist/economic (to offer innovative tourism packages) and occupational (to employ specialist staff - not simply tourist guides - able to introduce the public to experimental archaeology and prehistoric research).

Introduction (MGM)

This project arose from a somewhat unusual collaboration, at least for Sardinia, between a research institute - the University of Sassari - and an agritourism business ('Sa Ruda', Cabras - Oristano). Its aim was to reconstruct a prehistoric village (Fig. 1) and various related craft buildings to provide both an interesting alternative to the widely available and more traditional activities for visitors to the island and a valuable opportunity to carry out experimental archaeology, with appreciable results for science and education, as well as for tourism and the employment sector.

While experimental archaeology, in conjunction with technological research and ethnoarchaeology, has a long tradition, its application, in the case of Sardinia, has been somewhat sporadic. The scientific objective of the project was to create a university experimental archaeology laboratory to support technological research currently being carried out on finds recovered from prehistoric village sites by students from the university. The programme also provides educational coursework, both for graduate and post-graduate university students, and for primary and secondary school pupils. Internships have already been given to palaeontology students at the university, while numerous school visits have been organised comprising the study of handcrafts and simulated archaeological excavation.

These objectives conveniently dovetail with those of the company. The possibility, beyond simple board and lodging, of participating in experimental internships, visiting a prehistoric village and experiencing the products of experimental archaeology offers an innovative alternative to the more conventional tourism opportunities available locally, while also favouring a wider cultural tourism, both in terms of time (visits are not restricted to the summer season) and geography (extending towards inland Sardinia, the basis of the project).

This automatically leads to another, occupational, objective: the creation of specialised posts employing professional archaeologists (and experimental archaeologists), rather than tour guides, able to explain to the public the experimental activities taking place at the site and the nature of prehistoric research in general. The result of this collaboration between public and private bodies, research institution and tourism company, has been positive, with a noticeable rise in demand from schools (which had almost doubled by spring 2008) and a need for more specialised workers in the field.

Prior to the inception of the project, the company had already built four huts, a roof-canopy and a sheepfold. These do not form part of the experimental archaeology programme, which began at a later date, but they are used to house the products of experimental activities and, with some alterations, may be considered reasonably accurate reconstructions, based, as they are, on archaeological data (Melis in press a). The available information is drawn, for the most part, from chambered-tomb decoration (*domus de janas*) showing typical dwellings, which provide evidence of layout, walls and roofs, as well as fireplaces,

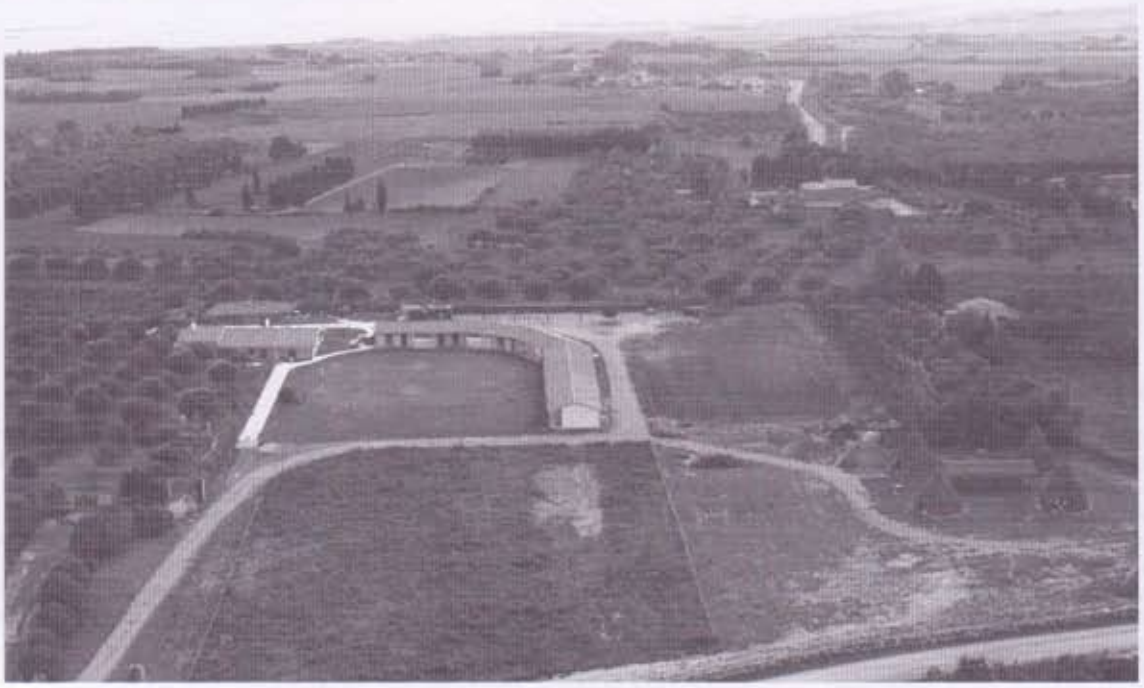

Fig. 1: Cabras (Sardinia), Sa Ruda: the reconstructed prehistoric village.

Fig. 2: Ossi (Sardinia), Noeddale: representation of a conical roof in a prehistoric hypogeum grave.

Fig. 3: Ossi (Sardinia), Noeddale: representation of a double-sloping roof in a prehistoric hypogeum grave.

internal supports, doors and windows and funerary beds. In particular, the conical roof reproduced in the Cabras huts and the gable roof of the canopy, inspired by various stone reliefs in rock-cut tombs (Figs. 2; 3), seem likely to be accurate reconstructions. The building materials are locally sourced, while construction techniques are based, at least in part, on traditional methods that maintain a strong presence in the area.

The huts, partly sunken and circular in plan, are based on the sub-structures present in the numerous Neo-Eneolithic villages to be found in Sardinia, in particular, Su Coddu (Selargius). This example is ideal as the principal point of reference for the study of prehistoric settlements in Sardinia, thanks to the wealth of archaeology and the number of excavations carried out on the site. The sub-structures have various morphological differences and fall into groups comprising habitations, silos, wells, fireplaces and rubbish tips. Evidence recovered from the 'Badas area' (Fig. 4) under the direction of the author between 2001 and 2007 (Melis *et al.* 2007) forms the database for our experimental activities. The methodological approach to finds investigation, based on a complete morphological, technological and functional analysis (Fig. 5) (Melis *et al.* in press; Cappai *et al.* in press), required a phase of experimentation to be undertaken in order to verify the archaeological data.

Fig. 4: Su Coddu-Canelles (Selargius, Sardinia): the prehistoric village.

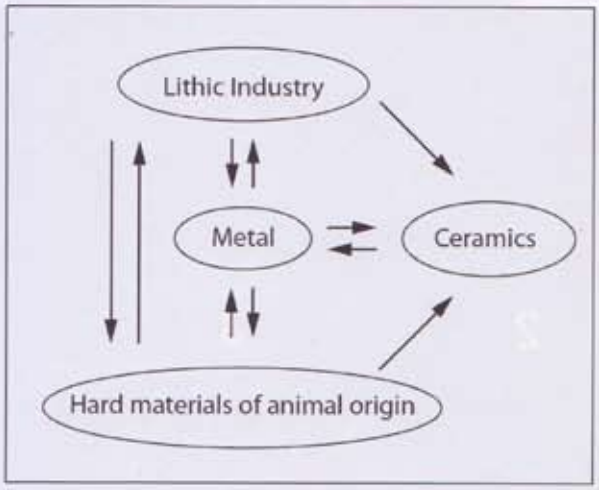

Fig. 5: The prehistoric and protohistoric artisanal production scheme interaction.

The choice of site for the reconstruction of the prehistoric village was far from random; its position close to the southwest shore of the extensive wetland at Cabras (Fig. 6) carries special importance, as it corresponds to an area of intense activity during the prehistoric period. During the Neolithic and Eneolithic, large villages were founded and developed, at Conca Illonis and Cuccuru s'Arriu, and these were directly related to the wetland (Melis 2002), which is considered one of the most important humid environments in Sardinia. Furthermore, in this particular area, an important contribution can be made by current ethnographic data, especially on the use of plant materials in building practices, in weaving and in activities related to the wetland (such as fishing and the harvesting of shellfish).

The reconstructed village is home to an interactive itinerary that illustrates different aspects of everyday life in prehistory (Fig. 7). Technology comes under investigation in one of the huts, with particular reference to the different raw materials used in prehistory and the production sequence. A second hut presents the character and furnishings of a typical dwelling and offers an insight into the everyday lives of the inhabitants, while another is dedicated to the primary activities of subsistence and a fourth contains temporary displays.

In the central space between the huts, a large canopy has been erected where visitor groups can gather and where weaving and other experimental activities are demonstrated. A sheepfold, a field for cultivation and an area for the firing of pottery roughly 50 metres to the southeast complete the village. Near the latter, an area devoted to the simulation of an archaeological excavation has been prepared, primarily for the use of junior school pupils.

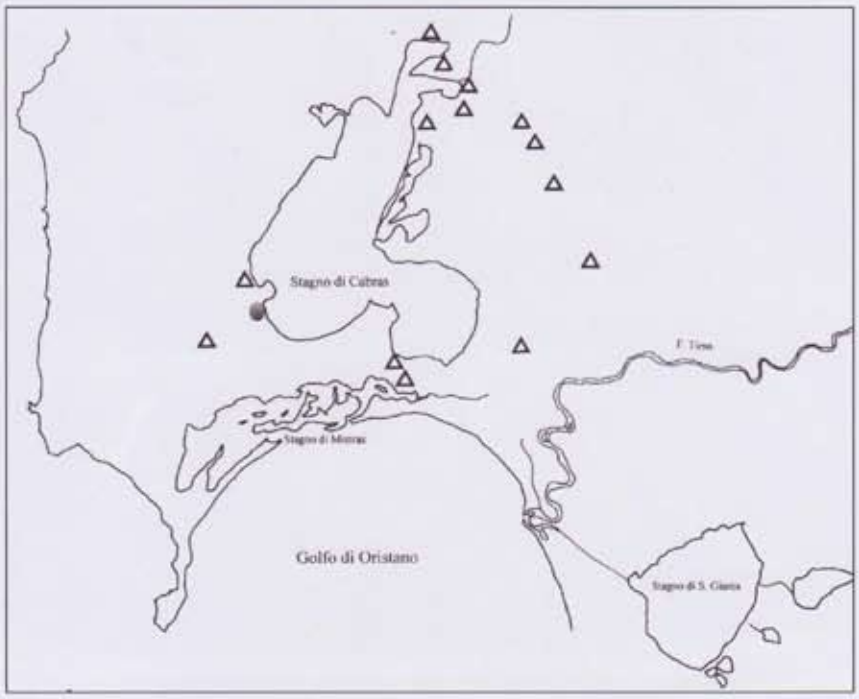

Fig. 6: Prehistoric villages around Cabras wetland and localisation of the reconstructed prehistoric village.

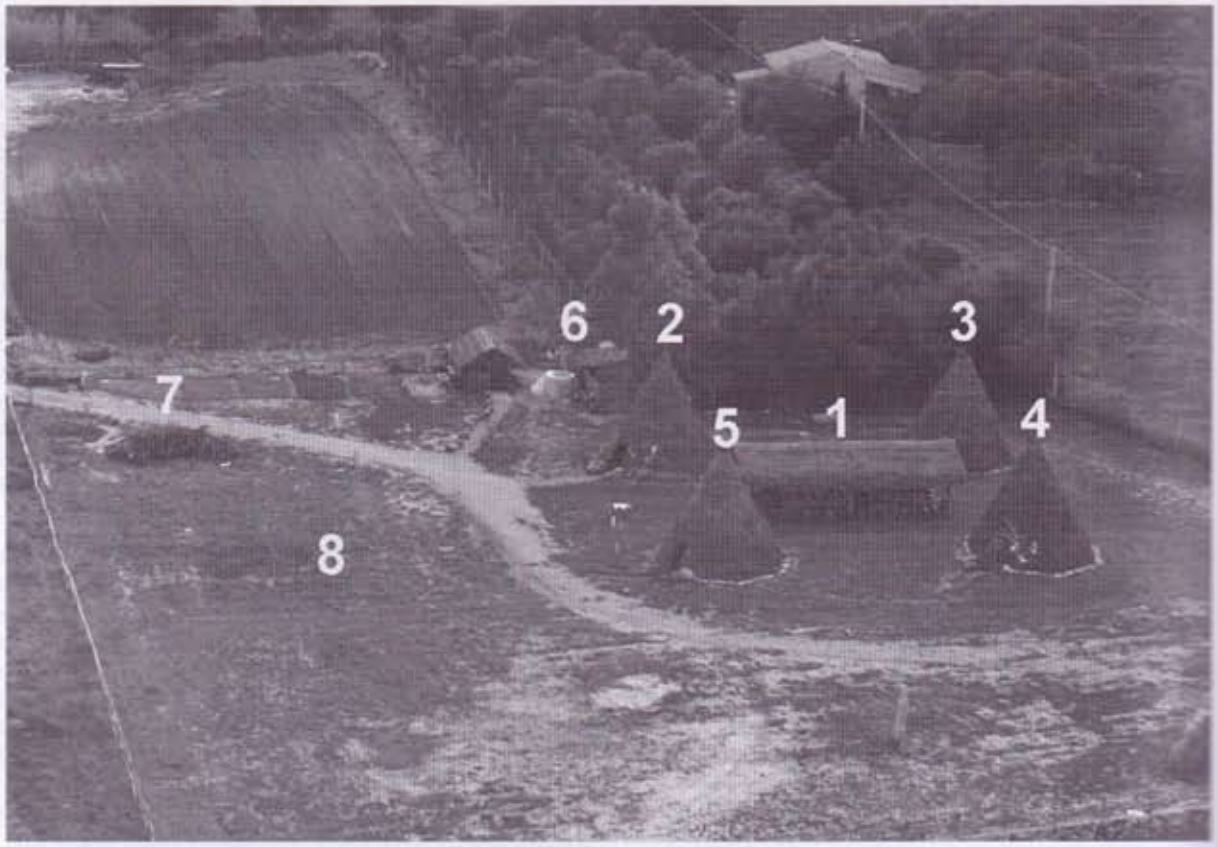

Fig. 7: Cabras (Sardinia), Sa Ruda: the structures of the reconstructed prehistoric village: 1, canopy for weaving activities; 2, 'primary activities' hut; 3, 'technology' hut, 4, 'exhibition' hut, 5, 'dwelling' hut; 6, sheepfold; 7, pottery firing area; 8, educational excavation area.

Fig. 8: Technology hut: lithic industry exhibition space.

Fig. 9: Technology hut: osseous animal materials exhibition space.

Fig. 10: Technology hut: pottery exhibition space.

The 'technology' hut (RC)

The technology hut is the one that, at first sight, might appear the least comprehensible to the visitor. The furnishings and fittings are simple and austere and it is divided into three main areas, each representing the process of working a different material, namely, stone (Fig. 8), osseous materials (Fig. 9) and pottery (Fig. 10). Why a 'technology' hut? Technology, if defined as 'the study of human activity in the acquisition and transformation of organic and inorganic elements from the natural world' (Cresswell 1991), is at the core of the reconstruction and is essential to understanding prehistoric peoples and their everyday lives. These activities are based on knowledge, ability, single actions and tools and were simultaneously of a technological and social nature.

It is here that the need to research human activity through archaeological evidence and experimentation is rooted, with the creation of an empirical environment not far removed from the original social context and through as scientific an approach as possible.

It was decided therefore to present the three principal categories of artefacts found in the archaeological deposit in this hut, namely, stone tools, ceramics and artefacts made of osseous materials, and to try to represent them in as dynamic and interactive a manner as possible in their natural contexts, combining them with all of the aspects that come into play in their production and use in a completely different way to that of a conventional museum (Figs. 11; 12).

Fig. 11: Operational sequence of polished stone blades: polishing phase.

Fig. 12: Technology hut: example of lithic industry presentation.

The choice of 'technology' is dictated, above all, by the form of research that the members of the team decided to utilise for the analysis of these archaeological artefacts (Cappai in press; Cappai *et al.* in press; Melis *et al.* in press) through the application of the *chaîne opératoire*, a method that lends a structure to the technical steps necessary to permit the manufacture or transformation of a natural element into a finished article. The basis of the study is not the object itself, isolated in its own context thanks to its 'aesthetic' character that makes it interesting, but of all aspects of the raw materials that combine in a single process creating a single dynamic.

The presentation thus follows this idealised route, applied scientifically through the integration of archaeological, ethnographic and experimental data, but attaining its educational objective thanks to the simplicity of the exhibition and the possibility to touch and reproduce the objects on display.

Each of the three areas shows that, by retracing the steps of each process, every object has its own history, which begins with a project and progresses physically through the sequence of raw material procurement, preparation, forming and chemical and physical transformation (pottery) or *débitage* and *façonnage* phases (stone and bone), through differing methods and techniques to the moment of its employment and eventual abandonment (Figs. 12; 13). The three sectors, while physically divided, are intertwined from the moment that the materials of each are employed at some point in the operational sequence of the others.

For stone tools, the main raw materials that have been documented in Sardinian prehistoric contexts are represented, giving prominence to stone with conchoidal fractures for the production of flake tools, as well as other varieties for producing polished instruments and grinding stones. The stone was gathered locally, where possible,

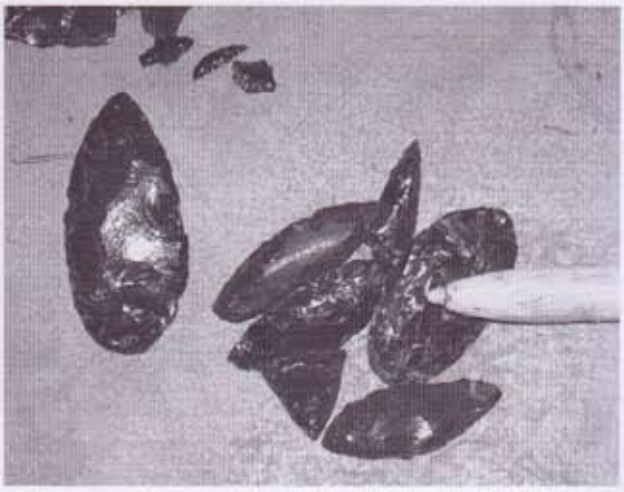

Fig. 13: Some lithic industry examples.

thanks not least to a working knowledge of the local area. Where this was not possible, the raw materials were chosen from the nearest available site or from those known to have been used during the prehistoric period.

Experimental activity on this material was conducted in several ways and with differing objectives:

1. The understanding of production techniques through the combination of differing methods reproducing Neolithic tools more or less faithfully.
2. Use of these tools, following experimental protocols, taking into account the interaction between the raw materials and through attempting various activities.

In the first case, the tools were made using known and documented models from prehistoric Sardinia.

Their production was the result of a collaboration between the more scientific approach of the archaeologist and the more technical side of the operator with little or no knowledge in the field. This allowed the creation of an empirical apprenticeship, where technical ability, knowledge and practice are put to the test in a process that is being continuously refined. The system is rich in terms of future possibilities, as the apprenticeship is never finished but continues to evolve. The first phase, beyond the obvious theoretical learning through the study of available scientific publications (Inizan *et al.* 1995; Pelegrin 2000) and through observing modern stone-knappers at work, centres upon the execution of straightforward tasks, such as the reproduction of simple tools, with the intention of increasing technical ability, in terms both of planning and the physical control of actions. Given that this type of operation is not easy, especially for non-archaeologists or people not directly interested in the activity and, above all for those unable to dedicate the long hours necessary for such an apprenticeship, a step is made to a second phase, where the worker has understood the process and the potentialities of methods and techniques and the handling

of the raw materials and has made his/her individual choices.

For flaked stone tools, the principal material used for knapping was obsidian (Fig. 14), given that it was the most widely utilised material in Neo-Eneolithic central-southern Sardinia and that the supply source is only a few kilometres from the village. The reproductions take in the entire Neolithic period and include both more formalised objects, such as geometric microliths, arrowheads and more or less standardised blades, and more opportunistic pieces, such as those found in large quantities in archaeological deposits (Fig. 13). Each object, as necessary, was provided with a suitable handle or left in its natural state, as indicated by the archaeological or ethnographic information available.

In the case of ground or polished tools, the same procedure was followed; however, the scarcity of technical or typological studies in prehistoric Sardinia necessitated the integration of data from more adequately researched contexts (*i.e.* Ricq-de-Bouard 1996). The principal example is that of polished stone axes (Fig. 15). Currently, only local raw materials have been utilised (the presence of greenstone in Sardinia has yet to be satisfactorily researched) and only previously demonstrated methods and techniques have been applied.

Alongside the principal objective of creating and presenting the village to the public, a series of activities investigating function are being planned and addressed.

Functional analysis, currently scarcely applied in Sardinia, is an important instrument in understanding technology in a given society for the reconstruction of the sequences used. Research into this is currently underway, thanks to a close collaboration between the University of Sassari and the Université de Provence (Cappai PhD in progress).

The creation of a base for comparison of obsidian objects (Hurcombe 1992; Iovino 1996) followed two principal phases of elaboration; the first preparatory, allowing an examination of the development of use-wear and its characteristics in relation to the action and the materials on which the objects were used (Figs. 16; 17); the second was concerned with specific experimental activities taking into account hypotheses based on the study of archaeological material.

The 'dwelling' hut (SP)

The dwelling hut presents an idealised reconstruction of a domestic environment, with furnishings and other articles necessary for everyday living. To the right of the entrance an area has been reserved for the display of local food produce and of smoked or salted meat and fish (Fig. 18). The ceramic vessels for the storage, preparation and consumption of food and drink were made as an experiment following examples of archaeological models. Those made of perishable materials, however, are typical of traditional local craftwork. The centre of the room is occupied by a clay fireplace, with fire-lighting implements placed nearby. Experimenting with this

Fig. 14: Obsidian knapping or obsidian reduction phase.

Fig. 15: Operational sequence of polished stone blades presentation.

Fig. 16: Example of experimental activity.

Fig. 17: Example of experimental activity.

Fig. 18: The 'dwelling' hut: 'cupboard' area.

activity it has been possible to make observations on the lighting and ventilation of this type of building. A grindstone, with its hand-stone, sit together on a rush mat with a bag containing grain and unleavened bread made from the flour producedIn this way, several activities that would have been conducted indoors are represented; rope and cord production using plant fibres, the making of a fish-trap, the shaping and finishing of ceramic vessels and the production of stone tools. Spinning and weaving would also have been practised here, as proven by archaeological finds of whorls and loom weights. The vertical hand loom is not the result of experimental archaeology but is instead based on widely accepted archaeological study and evidence. This type of hand loom is still used in traditional weaving in some areas of central Sardinia.

The furnishings are completed by stools and shelves in perishable materials, based on local ethnographic models. Rolled mats made from various materials were used as mattresses until recently, both in the home and by farmers, shepherds and travellers for sleeping outdoors.

Inside the hut, away from draughts or direct heat, ceramic vessels, made by Prehistory students from the University of Sassari during an internship here, are laid out to dry (Fig. 19). These activities of experimental archaeology take their lead from technical observations made on finds from the site at Su Coddu (Selargius, Calgiari) (Cappai *et al.* in press; Melis *et al.* 2006; Melis *et al.* in press; Piras in progress),, and with particular attention concerning form and surface finishes. The cooking pans are emblematic of this, having a shape that is almost a 'fossil-guide' of the early Eneolithic Age, with characteristic striped decoration visible on the outer surfaces (Fig. 20). In their case, the testing and successive comparison between the experimental and archaeological articles created an opportunity to verify hypotheses surrounding methods, length of time and instruments required for their production. The markings appear to be applied two or three days after assembly. The variable state of the drying process determines the final appearance of the striation and the degree of movement of the paste and temper. The tool used for their application was probably an obsidian flake (Fig. 21) (Piras in press a).

Fig. 19: The 'dwelling' hut: pottery drying phase.

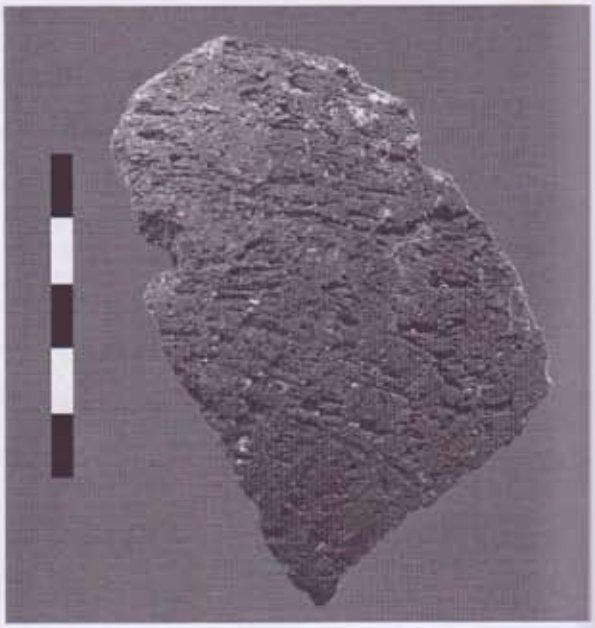

Fig. 20: Cooking pan fragment from the dwelling-site of Su Coddu (Selargius, Cagliari).

Fig. 21: Experimental *rabotage* with an obsidian flake.

Testing also demonstrated how this operation could not be excluded from the *chaîne opératoire* of other formal categories. Burnishing with a hard instrument, following the *rabotage*, in fact, almost completely hides the striation. On the other hand, using a softer tool did not completely erase these traces. These utensils will also be subjected to future functional analysis in the study of archaeological objects.

Experimental pottery firing has been carried out in a scrupulously cleared area located at a safe distance from the huts (Fig. 22). The heterogeneous colouring of the pot surface and the fractures present in virtually every ceramic object recovered from the site at Su Coddu has led to the theory that the pottery was fired in the open. Nevertheless, several objects demonstrate a uniformity of colour that indicates an appreciable level of control during the firing (Melis *et al.* in press). In anticipation of clearer information on the use of different structures from the archaeological excavations, the experimental firing of pottery has been tested both at ground level and in shallow pits. This has enabled the observation of typical fractures relating to the process of firing, such as the vertical split from the lip to the base of the container or the crack that forms across the width of the base. These fractures are characteristic of several authentic vessels, allowing them to be identified as the result of that process (Piras in press a).

Fig. 22: Experimental pottery firing in an open hearth.

The 'primary activities' hut (LM)

Based on archaeological evidence and, more indirectly, local ethnography, the instruments and produce of hunting, animal farming, fishing, gathering and agriculture are displayed in the 'primary activities' hut (Fig. 23). Hunting is represented by reproductions of tools varying from the simple wooden spear, through spears with obsidian, bone and wooden heads, a bow and arrows and a sling (Fig. 24). The arrows are kept in a quiver made from goatskin and stitched with fine leather lacing, whereas the sling is made from wood, tendon and leather. The hafts are fixed with fine cords of flax and sealed with resin.

Fig. 23: 'Primary activities' hut.

Fig. 24: Bow, arrows, sling.

Bovine, goat, sheep, canine and pig skulls illustrate the various species of domestic animal known from the early Neolithic period and provide evidence of the change

dictated by the introduction of animal husbandry and farming. The principal economic activity is illustrated through the display of various products of hunting or animal farming (tendon, skins, osseous materials), the tools required during the early stages of their preparation (pebbles and obsidian tools) and dyes for colouring the animal fibres (Figs. 25; 26).

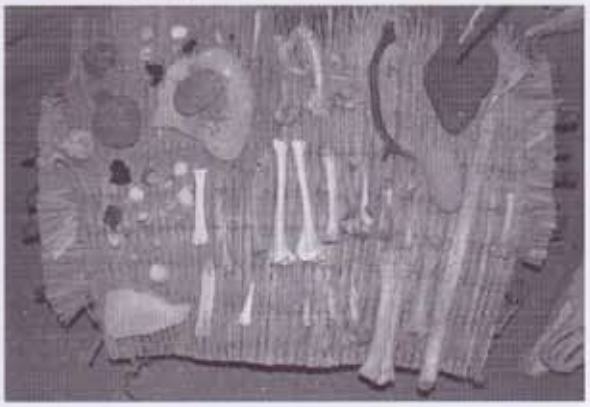

Fig. 25: Some products of hunting and gathering with instruments for their working.

Fig. 26: Tendons.

Fishing will have played an important part in the economy of the areas surrounding the wetlands. Equipment, which is not archaeologically documented because it was probably made from perishable material, has been reconstructed from ethnographic research. 'Active' fishing is represented by harpoons and rods, with fishing line made of yarn derived from plant fibres and hooks taken from the *Acacia horrida* (the thorns from this plant are extremely well-attached to the stalk and can bear considerable weight) (Fig. 27). 'Passive' fishing is represented by a flax net, two fish-traps (one in cane and the other in olive wood) and a trawl line, once again using hooks made from plant materials (Fig. 28).

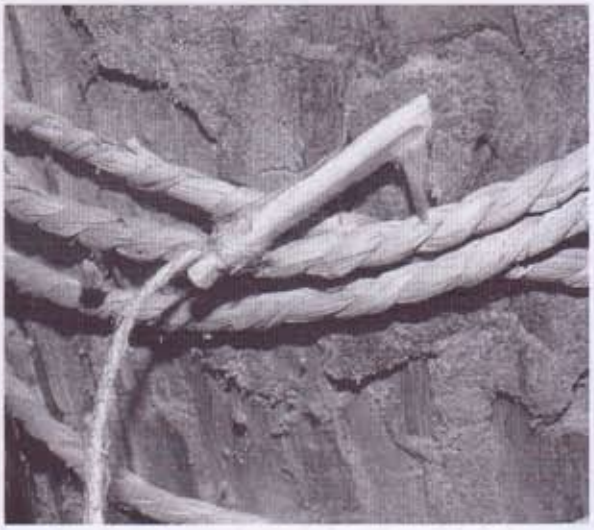

Fig. 27: Fishhook in thorn of *Acacia horrida*.

Fig. 28: Long-line fishing.

The act of *gathering* is illustrated through the presentation of those basic materials of plant origin used in the creation of tools or furnishings and of animal and vegetable food types typical of the wet environment.

The innovations of agriculture are characterised by the presence of sheaves of various species of cereal, a grindstone and hand-stone, a sickle for reaping the harvest and an axe for clearing land destined for cultivation.

The reproduction of objects made from osseous materials, such as those on display in the village, is a way of bringing students and people in general into contact with the processes used to treat this basic material that is increasingly rarely used by the public. Finds such as these, contrary to other types, including those in stone or terracotta, have been little studied and rarely discussed in scientific publications. Consequently, this display, which demonstrates the important role they played in Neolithic

and sub-Neolithic cultures and the way they changed over that arc of time, is something of a first, not only in an educational sense, but also in terms of the scientific research of prehistoric Sardinia. Their presence testifies to the richness of several Neolithic contexts discovered in the environs, such as the chamber-burial at Cuccuru is Arrius, dating to the Middle Neolithic period (Manca 2006; Santoni 1995), but also to Neolithic contexts generally in Sardinia.

Currently, experimentation plays a key role in understanding techniques, procedures and methods used in the production of articles. This has been a personal experience during ongoing research for my doctorate. The end products of the application of different techniques, as a result of this experimentation, are on display in the village, in order to offer visible and tangible examples of the various stages of transformation.

Fig. 29: Some phases of experimentation with bone.

Fig. 30: Some phases of experimentation with bone.

The main experimental activities were carried out using the long-bones of goats and cattle, particularly metapodial bones in the former, and femurs and metapodial bones in the latter. Other experiments also looked at the techniques used to perforate the *Cerastoderma glaucum*, a seashell, that played a prominent role in the production of personal ornaments in the early Eneolithic period (Melis *et al.* 2004).

One of the main objectives of experimentation on osseous materials, the protocol for which remains to be formally defined, is to try and recognise the different technological traces that obsidian tools left on the osseous surface (Fig. 29), as well as the level of efficiency of the various techniques, the condition of the raw material and the type of tool employed. A further objective is the recognition of fracture planes caused by the percussion employed in the phase of *débitage*, analogous to those found at the settlement of Su Coddu and datable to the Early Copper Age, sub-Ozieri phase. The variables taken into consideration, in this first instance, are the dryness or otherwise of the raw materials and the type of tool used on it (measuring weight, shape and degree of sharpness, the level of force employed and impact). This approach offers an opportunity to understand any peculiar characteristics among the various categories of objects to be found within the archaeological material. The techniques of scraping and abrasion during the phase of *façonnage* were also applied in the making of awls (Fig. 30).

Experiments using seashells, on the other hand, demonstrated, through comparison with the examples drawn from archaeological finds, that percussion was the only viable technique for perforation (Manca in press).

The 'exhibition' hut, canopy for weaving activities, didactical excavation area (LD)

The educational activities organised for primary and secondary schools are run mostly in the period between March and May and have seen a notable annual growth in demand. The groups are led by the team of researchers carrying out the experimental work and, for this reason, the quality of tuition, which is appreciated, above all, by teachers, is central to the substantial success that the project has achieved with schools.

The younger visitors have complete involvement in educational activities within the prehistoric village. Outside the huts, they are free to move around and can take in the view of the wetland, the nearby hills and distant mountains. Inside, the contents of the huts stimulate their curiosity. The guides accompany them into a new world where the most important lesson is the experience itself.

This mixture of experimentation and the manual approach to the materials is undoubtedly the most appropriate and direct educational route to the themes of prehistoric archaeology. The activities aimed at school groups cover all aspects of the production cycle, from the collection of raw materials and the manufacture and use of articles through to their discovery during simulated archaeological excavation.

The day begins with an introductory lesson. Making use of video and pictures (Fig. 31), the principal aspects of the prehistoric period and its main phases are explained. Among the several themes addressed, particular attention

is paid to stone-working, the manufacture of ceramics and the production of articles using osseous material.

Fig. 31: Introductory lesson.

The first hut to be visited is that which currently houses information panels on the Neolithic period in Sardinia and several reproductions of archaeological finds (Fig. 32). Following this, the principal Sardinian Neolithic cultures are outlined, along with a description of the main material products, to create a basis for the following activities.

Fig. 32: The exhibition hut.

The huts represent the point where younger visitors come closest to the life and environment of prehistoric people; the places they once frequented, the art of hunting, the tools they used in everyday situations and the way in which they were made, the animal and plant species that they knew - these are all topics that help in the approach to various fields of knowledge, such as geography, physics, anatomy and chemistry. The strong links that join many objects and activities with ethnographic traditions in Sardinia create opportunities for discussion, not only in the context of the village, but at home, among the family, where it is possible to revisit and recreate objects and behaviour that have only really changed in the past few decades.

The young people become the protagonists when the workshops begin. The activities are run outdoors in the central area between the huts under a large canopy. They watch a demonstration of the reduction of obsidian, take part in the polishing process and then in the use of an axe, and help in the hatfing of an arrow head (Fig. 33). They also participate in the use of stone tools for the production of flour from cereals, see minerals used for dyeing and witness similar activities employing both wood and bone.

Fig. 33: Phase of an arrowhead's hatfing.

They themselves can make tools and ornaments in bone or shell based on actual archaeological finds; using polishing techniques, for example, they can make a bone awl that they will then use to pierce leather or decorate ceramic vessels.

Under the guidance of the team, they will learn to work clay using prehistoric techniques, creating small ceramic containers, tools or ornaments. They then apply finishing techniques and decorate the surfaces using bone, wood or shell tools and apply mineral colours (Fig. 34).

The art of plaiting is also demonstrated using various kinds of local plant material (Piras in press b). A rudimentary loom, strengthened with three or four fastenings held down with stone weights, enables the production of open and widely spaced weaves (Fig. 35). The result is the straightforward production of rush

matting, reed partitions and covers or other lattice structures in cane or olive wood. The production of these articles can help in the comprehension of related archaeological evidence, such as imprints left in the inner surface of daub or baked clay.

Fig. 34: Pottery workshop: phase of decoration.

Fig. 35: Rudimentary loom.

Armed with bucket, trowel, brush and sieve, they experience the exciting world of the archaeologist through the activities of excavation, documentation and the reconstruction of ancient contexts (Fig. 36). As a test of their attention to the lessons, they are asked to identify the objects that they uncover and to explain their use and significance.

Fig. 36: A phase of the archaeological excavation.

The excavation represents a particularly useful educational tool, as it stimulates the capacity for observation and analysis, encouraging the understanding of the 'find' as a useful element in the reconstruction of the past, above and beyond its intrinsic value.

They learn to appreciate natural resources; through understanding and experiencing the processes of production that transform raw materials into a finished article, they gain an ecological and civic awareness that perhaps they did not have previously. Much like the objects used by prehistoric people, the things that we find everyday at the supermarket have a history, which is also that of the people who produced them. These objects, when they are no longer useful, can often be recycled and become once again raw materials ready to be used in the manufacture of something new.

At the conclusion of the activity, the gift of the objects that they have made and the invitation to look after them prolongs the educational journey that can continue in further personal and scholastic experiences.

Conclusions

The project presented here is merely the beginning of a journey that can continue to give positive results in the fields of science, education, tourism and employment.

The next step in our pursuit of experimental archaeology will be both towards the production of handcrafts, attempting to improve on progress already made and updating the process with new archaeological data that is continuously emerging, and in the field of building technology, and will strengthen the educational and tourism opportunities already on offer with new workshops and events directed at a wider public.

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