



■ Fig. 1 Iberian village of Tornabous (Tornabous, Lleida), a general view of the settlement.

Presenting archaeological heritage to the public: ruins versus reconstructions

This article is the result of four years' research into the presentation of Bronze and Iron Age archaeological sites in Europe.

■ Clara MASRIERA
I ESQUERRA
(Spain)

To focus and define our approach, we chose first to establish which existing archaeological locations had been used to trace the course of European Protohistory, and then to investigate which of these locations were presented to the public at a 1:1 scale. Running parallel to this was our plan to compare the communicative or didactic efficacy of those sites which were presented in a traditional manner – that is, through the preservation of existing remains without further direct intervention – and those which had been three-dimensionally reconstructed or replicated. Was this latter approach an effective means of achieving

better public understanding of the period in question? Our field work focused on five archaeological sites from the Iberian period, all located in Catalonia. Four of these display preserved remains, while one is partially-reconstructed.

1. Reconstructions: between distrust and discredit

It may seem ambitious to attempt to analyse Bronze and Iron Age archaeological displays throughout Europe in the limited time span of four years, but our research objectives were quite modest from the outset. Our fundamental aim was to establish how worthwhile it was to carry out volumetric reconstructions of archaeological sites, in all their possible variations. Many of our archaeologist colleagues were unconvinced by reconstructions. Some put forward scientific scruples; others referred to the problems raised

by Spanish legislation, which is also reluctant to allow this type of intervention; but none of them had gone so far as to consider whether reconstructions could actually be useful as a means of increasing public knowledge. We do not refer here to the critical voices which reject reconstructions on the basis of an elitist, conservative and retrograde view of scientific knowledge and of our heritage. Our concern is with those who, despite their critical approach to this particular issue, clearly believed that scientific knowledge should be available to the whole of society, which, after all, foots the bill.

2. Finding answers to our hypotheses

Our fundamental hypothesis was this: given that most people find it difficult to conceptualise physical space, a visit to a reconstructed archaeological site should help them to reach a better understand-

ing of that space. However – and contrary to our hypothesis – there was a perception that some reconstructed sites in Europe were not exactly in the best of health. After enjoying a decade of acclaim between the mid-70s and mid-80s of the last century, it seemed that the world of reconstructions was now heading downhill, and had become a target of criticism as visitor numbers decreased. If this was indeed the case, how could it be explained? This led us to a secondary hypothesis: namely, that the reason for the crisis currently affecting sites with architectonic interpretations on a 1:1 scale was not so much their communicative inefficacy, but rather their failure to demonstrate archaeological methods of analysis to visitors in an interactive way.

Our research was driven by this situation and the questions it raised, which we aimed

to address by means of the following objectives:

1. To discover the extent of the 'museumification'⁽¹⁾ of protohistorical sites in Europe.
2. To investigate to what extent the archaeological sites open to the public in Western Europe incorporate techniques from experimental archaeology and features restoration.
3. To find out exactly how satisfactory the presentation of archaeological sites is for the public in general.
4. To discover to what extent volumetric physical reconstructions of protohistorical buildings help visitors reach a greater understanding of the period.

In order to tackle the first and second objectives, it was clearly necessary to establish which were the most significant European archaeological sites from the period, and how many of these had been adapted for public visits. This nearly impossible task – involving a bewildering array of sites – would allow us to identify those which had been subject to a particular form of intervention: that is, reconstruction, replication or architectural interpretation.

Broadly speaking, our initial research enabled us to classify the archaeological heritage of European protohistory into two main geographical zones:

Central and Northern Europe

The archaeological remains from the period on which our research is based are typically composed of organic, per-

ishable material: hundreds of years spent in a particular climate cause them to disintegrate, leaving only traces in the earth of the site they once occupied. In archaeological terms, these traces are like the photographic negatives left behind by the original architectonic construction. This may well have been one of the originating factors leading to the development of the technique of experimental archaeology, as well as the physical reconstruction of some archaeological settlements *in situ*.⁽²⁾

The Mediterranean zone

The tradition of conserving archaeological remains here differs from that described above. In this zone the archaeological-architectonic remains from the period in question are composed of preserved geological material, together with perishable material which has survived only in some cases. This combination has left us with remains which are partially conserved, to a much greater extent than in the previously-mentioned zone. The museological tradition in the Mediterranean has therefore focused on consolidating and preserving the remains as they were found, without further intervention.

3. Doubts concerning experimental archaeology

The results of this initial stage of our research were most interesting, since they showed that of the huge number of protohistorical archaeological sites, only a tiny fraction are used in general reference manuals dealing with the period, raising the question of whether the remaining sites

were even considered when it came to re-creating the past. As for the sites which do appear, it goes without saying that very few of them can still be visited: indeed, some of the most important sites (according to the manuals) have no information facility and are closed to the public. When we consider the sites open to public, they can certainly be classified according to different models; but those involving reconstruction or replication are very much in the minority. Nevertheless, most of these sites referred to their use of experimental archaeology in order to justify their existence, and while experimental archaeology was not the only driving force, it was certainly one of the most important. In fact, throughout this research we have been struck by the value which archaeologists themselves attach to experimental archaeology. It has been responsible for some very significant advances in the understanding of ancient societies in all their aspects, from building methods to the organisation of human protection and comfort. Many of the stereotypes relating to protohistorical societies have thus been left behind, and the new models have provided us with well-founded scientific knowledge about the past.

The reality is, however, that the need to achieve sufficient visitor numbers in order to keep the facilities economically viable means that initiatives which are essentially exhibitions are often presented as examples of experimental archaeology. We mention this fact because, unlike the major 'fossilised', unreconstructed archaeological sites which receive public funding and are often entirely state-financed, the sustainability of most of

the centres where restoration has been carried out depends largely on their continued capacity to attract visitors. It is hardly surprising, then, that genuine experimental archaeology is replaced by false practices, leading to strangely homogenous results. Thus, for example, architectonic solutions appropriate to the Baltic coast are reproduced with striking similarity on the plains of Poland, in the Danube basin, and on both sides of the Alps. Were Bronze Age societies so lacking in ingenuity that they could think of only a handful of ways of roofing buildings? Did these diverse cultures really have such a limited range of solutions to their day-to-day problems? Or could ideas have travelled as quickly 3,500 years ago as they do today?



■ Fig. 2 Iberian citadel of Calafell (Calafell, Tarragona), Iberian amphorae reproduction.



■ Fig. 3 Citadel of Calafell, reconstructed wall.

(1) Adaptation of a site in order to make it suitable for public visits.

(2) For information on the archaeological reconstruction works which have been carried out in Europe see Stone, P.G. & Planel, P.G. (ed.) 1999: *The Constructed Past – Experimental Archaeology, Education and the Public*, Routledge, London. Also Ahrens, C. (1990) *Wiederaufgebaute Vorzeit. Archäologische Freilichtmuseen in Europa*. Karl Buchholtz Verlag, Neumünster.

(3) In Catalonia a *comarca* is a territorial division and local government area, similar to but smaller than a county.



■ **Fig. 4** Iberian citadel of Calafell (Calafell, Tarragona), walking through a reconstructed Iberian village.



■ **Fig. 5** Iberian citadel of Calafell (Calafell, Tarragona), reconstructed oven.

The only possible conclusion is that the weakness lies not with European Iron Age societies, but with the quality of the research being carried out today. The abovementioned repetition of solutions, which only becomes clear after visiting all the reconstructed sites, raises serious questions regarding the rigour of the methodological approach; and the distrust generated by such homogenisation jeopardises the credibility of the entire system. This is especially true when we consider that Iron Age societies were far more varied than those of today, given that the circulation of people, goods and services was less intense, and thus homogenisation would not have taken place.

4. Five sites under the magnifying glass

Objectives three and four, which aimed to get a true measure of the levels of satisfaction and increased understanding amongst the public according to whether or not the site they had visited was a reconstruction, involved far more complex research. The first problem we came up against was the lack of theoretical models as applied to heritage centres. No studies had been carried out to evaluate either public satisfaction or

increased knowledge. Of the studies which had been made, most could be grouped under the “commercial marketing” label, since their aim was usually to measure fluctuating visitor numbers using elementary, easily-calculated typology and parameters such as the availability and quality of facilities. It is a very different thing to investigate the levels of satisfaction or knowledge gained, given that both terms are highly subjective and can cover a wide range of concepts.

Another complicating factor was that our aim was not simply to find out if people had learned something from their visit, but also to establish whether the visit to site A, a reconstruction, had been more or less satisfactory than the visit to the unreconstructed site B; more than that, we also wanted to know whether people had gained more knowledge from their visit to site A as opposed to site B. There was an obvious difficulty in tackling these issues, since to establish if any knowledge had been gained it would be necessary to question the visitors both before and after they entered the site: this would be the only way of evaluating whether they had learned anything, and it would have to be done at both reconstructed and unreconstructed sites.

Clearly, the main risk with this type of research is the reliability of the data. We would have to know in advance the minimum number of surveys needed for a quantitative study – essential in our case – and this number would have to be calculated in reference to an unknown number of potential visitors. But a qualitative study also had to be carried out, since knowing the views of organisers and visitors at all levels was a methodological obligation which could not be avoided: this was the only way of establishing whether what people said was happening was actually taking place, or whether there was a large gap between what was being said and what was really going on. This is an essential point: although sociology and other disciplines have developed methods for undertaking qualitative and quantitative research, the absence of precedents in the application of such models to the kind of intangible concepts we were dealing with involved evident risks.

In order to carry out this research, we needed to locate a number of archaeological sites from the same chronological period, open to the public and suitably adapted, but completely devoid of reconstructions. Furthermore, it was nec-

essary to find these sites within a fairly limited geographical area, since sociologically it would be impossible to compare what happened at a site in Catalonia with what was going on at a site in France or central Spain: geographical distance and probable sociological differences could invalidate the results. Of all the archaeological sites analysed, the **Iberian Citadel in Calafell** (in the *comarca* of Baix Penedès, province of Tarragona)⁽³⁾ was the only one from the relevant period which had a reconstruction. The site is relatively small, covering some 3,000 square metres of excavated land: the reconstruction was carried out in the 1990s using experimental archaeology techniques. It is a pioneering development in Spain, clearly oriented towards informing and educating the public despite its location in a major tourist area some 30 km from the town of Tarragona, and 60 km down the coast from Barcelona. It faces the sea, and is located between the railway and a very busy road. The surrounding area is heavily built-up: low-cost holiday apartments in blocks of up to seven storeys line the seafront in what is one of the most densely-built tourist areas of the Mediterranean Coast. The site has no museum of its own, and all items on display are replicas.



■ Fig. 6 Iberian village of Moleta del Remei (Alcanar, Tarragona), wall made by concrete above the original one.



■ Fig. 7 Moleta del Remei, consolidated walls.



■ Fig. 8 Moleta del Remei, interpretation panel.

The second location we chose was the Iberian **village at Ullastret**. This is one of the most important Iberian archaeological sites in Catalonia, situated on the Empordà plain around 100 km from Calafell; while it is not located on the coast, it is in a coastal comarca, one of the most tourism-dominated in the country – the Costa Brava. Unlike the Iberian Citadel in Calafell, an Iberian settlement did actually exist at Ullastret, covering more than 17 hectares. This was the principal city of the Indigete territory, and it is spectacularly preserved. The walls and part of the fortification system are still close to their original height: in some cases, all that is missing are the roofs and the upper floor. The site at Ullastret does have museum where artefacts found during excavation are on display; while the surrounding area, which was once a lake, has been left in its natural state.

The third site included in our study is **Moleta del Remei**, in the comarca of El Montsià (Tarragona). It covers half a hectare and is a typical rural settlement, built on a hill surrounded by a sub-circular wall, with houses arranged in concentric circles. It has undergone a classic process of ‘museumification’: the walls have been preserved, and the most important areas and architectonic elements have been labelled with didactic information and symbols, though it has no site-specific museum. It is around 60 km from the Iberian Citadel at Calafell, and some 200 km from Ullastret.

The **Molí de l’Espígol** in Tornabous, in the comarca of Urgell (province of Lleida), was our fourth site. This settlement is situated on a plateau and extends over 0.8 hectares. It was a small Iberian town with a fairly regular layout which is well preserved – though only at the level of paving and foundations – and surrounded by a

marked protecting wall. It has no didactic museography, and its rudimentary interpretative centre is without original features. As for its surroundings, though it is not a particularly elevated location, the plain of Urgell can be seen from the site.

Our final site is **El Turó de Ca n’Olivé** at Cerdanyola del Vallès, in the comarca of Vallès Occidental (province of Barcelona). This is a medium-sized Iberian village covering almost two hectares, which has been excavated using modern methods and undergone significant intervention in order to preserve the walls. Its museographical system is conventional, with iron furniture and didactic iconography. It has no location-specific museum. In terms of the surrounding landscape, it is located near a town and the urban agglomeration of Barcelona.

To sum up, then, we selected five sites, four of which – Ullastret, La Moleta del Remei, El Molí de l’Espígol and El Turó de Ca n’Olivé – fit conventional models for the museumification of ruins, while one – the Iberian Citadel at Calafell – conforms to a classic reconstruction model.

Before presenting the results of our study, we believe it important to outline the methodology adopted. Methodologically speaking, qualitative analysis is always more clearly defined, and is as straightforward in this particular area as in any other: its validity is principally linked to the number and type of interviewees. For us, the main methodological problems lay with the quantitative analysis, and for this reason we feel it necessary to give a general sense of what was involved.

We needed to design a kind of double survey, firstly with a view to finding out the level of knowledge of the Iberian period which visitors had on arriving at the site, and

then discovering whether any cognitive evolution had taken place during the visit. The same surveys would also give us information on variables such as the interviewees' sex, their age and level of education, as well as on how satisfactory and/or worthwhile they had considered their visit: this would then be compared with the results relating to knowledge of the Iberian peoples. The results of all the surveys from the five selected sites were subsequently classified according to whether they had been carried out in sites which we have described as 'preserved' – where the remains had not been transformed in any way – and those which were reconstructed, where the remains had been subject to 'interpretation', and been modified three-dimensionally on a real scale.

5. The public reaction to archaeological sites

One of the most striking aspects of our research from the two different types of site was the differing profile of their respective visitors. According to the results, the majority of those who visit reconstructed sites tend to have a lower level of education, while preserved sites receive more highly educated visitors. Leaving aside the other possible explanations for this phenomenon, involving factors such as the visitors' age and the purpose of the site, a number of conclusions can be drawn. For many people, a visit to an archaeological site is linked to the notion of a ruin, with all its accompanying overtones of romance and mystery. In this sense, such a visit can have connotations similar to a visit to a reliquary: it is the veneration of an object which has been sanctified by time and academic tradition. Furthermore, the romantic archaeological site confers an element of social prestige on its visitors which the reconstructed monument lacks. This particular type of univer-

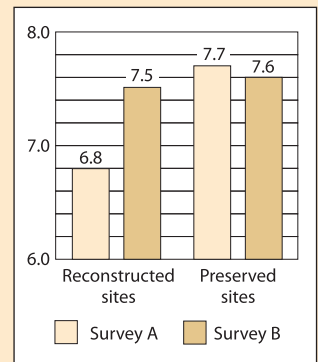
sity-educated visitor may not be visiting the site in order to clear up doubts, analyse ideas, verify hypotheses and acquire a particular knowledge; they may simply wish to prove their membership of a cultural elite, a club which only a few can enter, and thus their visit becomes a badge of exclusivity. It is undoubtedly true that the cultural veneer conferred by the preserved archaeological site is not always available at a reconstruction, which the abovementioned group tends to view as childish.

There is another factor involved here which is perhaps contingent, and therefore not applicable to other studies on this issue which may be carried out in the future: we refer to the natural surroundings of the sites. The visitor of higher educational status is looking for a 'high-quality experience'; he or she will not go to an archaeological site for its own sake, but rather because it is located in a 'quality' area as regards nature and landscape. As we saw in our study, such advantages are present at the majority of preserved sites, whereas the opposite is true in relation to the only reconstructed site: this is clearly an important factor in the type of visitor attracted by a particular site.

A further aspect worth highlighting is the didactic efficacy of the different types of site. The results of our research clearly show, beyond any possible doubt, that people always learn from visiting reconstructed sites. In this regard, significant differences can be seen in the surveys carried out before and after the visit. The surveys from the preserved sites, on the other hand, not only show no evidence of learning having taken place, but actually raise the possibility that such visits increase confusion: in other words, that people understand less as a result (see **graphs 1, 2 and 3**). This is a surprising finding, going far beyond the

range of our initial hypothesis: the idea that a visit to an archaeological site could actually lead to decreased levels of knowledge and understanding had never occurred to us. Nevertheless, this is what the research indicates, and it becomes even more significant when we consider the higher educational levels of the visitors to preserved sites – essentially, these highly-educated people are leaving the sites with less understanding than they had on the way in. This is a finding of such importance that we believe it necessary to continue our research using this as a starting hypothesis, in order to explore the reasons for such confusion at preserved sites.

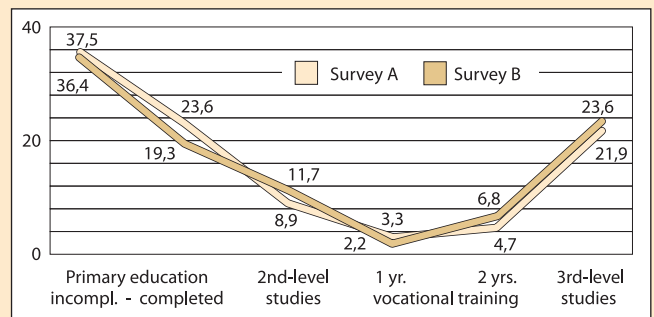
The final significant element from our research relates to levels of satisfaction. The results seem less conclusive on this point, given that 'satisfaction' is a concept which can cover many different responses, and is thus difficult to evaluate. If by satisfaction we understand 'enjoyment' as opposed to 'boredom', the



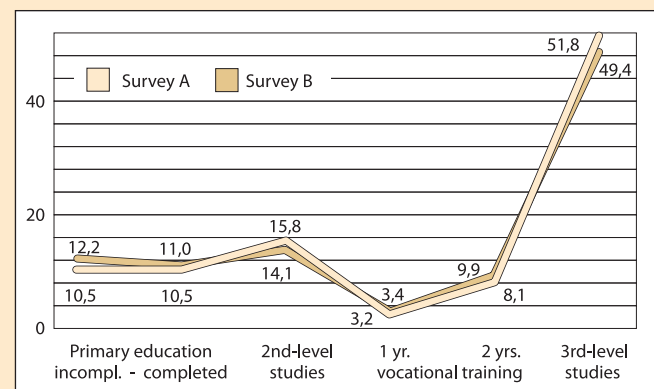
■ Graph 1 Mean overall results.

reconstructed site produced satisfaction; similarly, if satisfaction entails 'I understood something' as opposed to 'I didn't understand a thing', the reconstructed site was the most successful. This was also the case in terms of 'actively involved' as opposed to 'passive', and 'practical knowledge' as opposed to 'theory'.

However, if we insert the terms 'pointless' as opposed to 'worthwhile', or even 'interesting' versus 'not interesting', the reconstructed site produced levels of satisfaction no higher than at the preserved sites. How can this be explained?



■ Graph 2 Reconstructed sites.



■ Graph 3 Preserved sites.

At present, although the research has concluded, there remain a number of unresolved questions. The following issues are particularly important:

- Future research should focus on the qualitative approach, in order to establish whether it coincides with the quantitative data from the present study.
- The reasons for the resistance of archaeology professionals to implementing techniques from experimental archaeology should be explored in depth.
- The extent of the similarities between reconstructions of the same period carried out in different countries needs to be studied.
- The same type of research should be undertaken in relation to Roman and medieval archaeological sites.

Summary

Zur öffentlichen Präsentation archäologischen Kulturerbes: Ruinen versus Rekonstruktionen

Der Artikel behandelt die Resultate von Untersuchungen

zur Präsentation von bronze- und eisenzeitlichen Fundplätzen in Europa. Zuerst wurde dabei erfasst, welche vorhandenen archäologischen Plätze zur Darstellung der urgeschichtlicher Entwicklungen genutzt werden; danach wurde geprüft, welche dieser Plätze für die Öffentlichkeit im Maßstab 1:1 präsentiert werden. Parallel zu diesem Ansatz wurde überlegt, die kommunikative oder didaktische „Effizienz“ von Fundplätzen, die mit Hilfe von erhaltenen Originalbefunden gezeigt werden, mit jenen Plätzen zu vergleichen, die auf dreidimensionale Weise rekonstruiert wurden.

Von der großen Menge urgeschichtlicher archäologischer Fundplätze wird sich lediglich auf eine verschwindend kleine Anzahl von ihnen regelmäßig in allgemeinen Handbüchern zur Bronze- und Eisenzeit bezogen. Von diesen dargestellten Plätzen ist nur eine sehr kleine Zahl öffentlich zugänglich; einige der gemäß der Handbücher bedeutendsten Fundplätze besitzen überhaupt kein Informationsangebot vor Ort und/oder sind für die Öffentlichkeit geschlossen. Die nicht rekonstruierten archäologischen Plätze erhalten häufig eine öffentliche finanzielle Förderung oder sind sogar in vielen Fällen vollständig von der öffentlichen Hand finanziert. Die Dauerhaftigkeit der meisten Zentren, in denen es Rekonstruktionen gibt, hängt dagegen jedoch weitgehend von ihren Möglichkeiten ab, eine ausreichende Zahl von Besuchern zu gewinnen – wobei vergessen wird, dass gerade die

Experimentelle Archäologie für einige der bedeutendsten Erkenntnisfortschritte beim Verständnis von frühen Gesellschaften in ihren verschiedenen Aspekten von großer Bedeutung war und ist.

Um die kommunikative „Effizienz“ herauszuarbeiten, wurden fünf Plätze aus einem jeweils ähnlichem Kontext ausgewählt; vier von diesen entsprachen den konventionellen Ansätzen der „Museumifizierung“ von Ruinen, bei einer handelte es sich um eine klassische rekonstruierte Anlage. Die Ergebnisse dieser Untersuchungen zeigen, dass die Gäste beim Besuch einer rekonstruierten Anlage immer etwas lernen. Andererseits ergab die Auswertung der Daten von den konservierten Fundplätzen nicht nur, dass hier kein effektiver Lerneffekt festzustellen war, sondern dass bei ihnen sogar die Möglichkeit besteht, dass bei den Besuchern eine gewisse Verwirrung erzeugt wird – ein durchaus überraschendes Resultat.

Présentation des découvertes archéologiques au public: ruines contre reconstitutions

L'article met au jour les résultats des recherches menées en présentation des sites européens datés de l'âge du bronze et du fer. D'abord, il était nécessaire de mettre en évidence la totalité des sites qui servent à illustrer la protohistoire et ensuite d'en choisir ceux qui sont présentés à l'échelle 1:1. On a fait un projet de comparer l'importance informative ou didactique des sites présentés par l'intermédiaire de leurs vestiges conservés avec les sites reconstitués.

Les publications-résumés ne rappellent qu'un faible pourcentage de la grande nombre de sites archéologiques qui datent de la période en question. En effet, on en peut visiter quelques peu du fait que certains sites, d'après les brochures ceux les plus importants, sont fermés au public et sans équipement et matériels informatiques. Les sites non-reconstitués touchent souvent des dotations publiques ou sont complètement subventionnés par l'Etat tandis que l'existence de la plupart des sites reconstitués tient à leur capacité de faire rentrer des visiteurs. Et c'est bien que l'archéologie expérimentale ait procuré un grand progrès à la connaissance des sociétés anciennes sous tous les aspects.

Pour évaluer leurs qualités de communication, on a choisi cinq centres situés dans des milieux pareils dont quatre correspondent au modèle muséologique de convention de conservation des ruines et l'un au modèle classique de reconstitution. Les résultats de la recherche mettent en évidence que chaque visite dans un site reconstitué apporte de la connaissance au visiteur. Par contre, celle dans un site conservé non seulement qu'elle n'en apporte aucune, mais encore, dans quelques cas, il arrive que des visiteurs partent déçus de ce qui est une constatation surprenante.

■ **Clara Masriera i Esquerra** did her PhD research at the Department of Social Science Didactics Faculty of Teacher Training University of Barcelona



■ Fig. 9 Iberian village of Ullastret (Ullastret, Girona), a general view from the settlement. ■ Fig. 10 Ullastret, preserved iberian silos.