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Archaeological sites and site museums

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STOLEN

Oil painting on wood entitled Boerenhoeve (A Farm) by Pieter Balten, dated 1581, monogram at bottom right. Diameter 23 cm. Estimated value NLG 150,000. Stolen on 13 April 1997 from a museum in The Hague, Netherlands. (Reference 6.165.1/97.6261, Interpol, The Hague.)

Photo by courtesy of the ICPO–Interpol General Secretariat, Lyons (France)

Editorial

On 26 November 1922 the archaeologist Howard Carter lived what he later called 'the day of days, the most wonderful that I have ever lived through'. Standing before the sealed door of the long-lost tomb of Tutankhamen in Egypt's Valley of the Kings, he made a small opening and peered through it. When asked if he could see anything Carter replied, 'Yes, wonderful things.' He was, as he described, 'dumbstruck with amazement . . . as my eyes grew accustomed to the light, details of the room within emerged slowly from the mist, strange animals, statues and gold – everywhere the glint of gold.' [1]

The story of Carter's opening of Tutankhamen's tomb has passed into legend, illustrating how the archaeologist's discovery of the past thrills and fascinates us today. Schliemann's unearthing of Troy, Bingham's find of Machu Picchu, the exploit of four adolescent boys who stumbled on the French cave of Lascaux and so on: the list is long of the fabled remains that archaeology has brought to light, firing our imagination and creating an ongoing dialogue with the past. Yet this dialogue is complex and not without contradictions, for the clues, the keys to unlocking the secrets of ancient worlds, reside in the present and in those vestiges that have survived the vagaries of time; we cannot know what has been irretrievably lost which might shed a different light on what has remained.

But archaeology is nothing if not a lesson in resourcefulness, imagination and the adaptation of science and technology to its own ends. Aerial photography, carbon dating, pollen anaysis, satellite imagery and computer simulation, are but a few of the advances that have helped transform the archaeologist's work. Biology, botany, chemistry, geology, history, psychology and art are but some of the disciplines that come into play.

The success of archaeology in capturing the public's interest has, however, created new challenges: the need for greater involvement of environmental specialists in excavation and field-work; the effects of mass tourism and the establishment of that delicate balance between the public's right of access to its cultural heritage and the well-being and very survival of that heritage; the shift from a traditionally male-oriented interpretation and emphasis on so-called masculine activities – hunting, toolmaking – to a broader view of how ancient societies may have functioned; a new awareness and sensitivity to the views of indigenous peoples; a heightened concern with looting and illicit trade in archaeological finds, to name but a few.[2]

What, then, is the role of the site museum, that repository of fragments, artefacts and objects in situ in their age-old context? How can it preserve, protect and above all make meaningful the often random finds that could reconstruct past ways of life and illuminate the processes that underlie and condition human behaviour? Again, the issues are complex, for they touch on questions of politics and ethics, history and self-image, which can in no way be wholly 'scientific' or objective, and which make clear that, in the last analysis, archaeology is no more and no less than 'a critical contemporary discussion of the past.' [3]

UNESCO has long been concerned with this subject; indeed, one of the Organization's early normative instruments was the Recommendation on International Principles Applicable to Archaeological Excavations, adopted in December 1956, which specifically mentions the need for site museums. We thus wished to look at both the broader issues now involved and the specific ways in which museums are confronting them. Our profound thanks go to Rachel Hachlili, professor in the department of Archaeology and Museum Studies at the University of Haifa (Israel), who helped co-ordinate this special dossier. Her breadth of knowledge, vision and enthusiasm were invaluable. ML

Notes

1. Arnold C. Brackman, The Search for the Gold of Tutankhamen, New York, Simon & Schuster, 1976.

2. Paul G. Bahn (ed.), The Cambridge Illustrated History of Archaeology, Cambridge University Press, 1996.

3. Ibid.

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A question of interpretation

Rachel Hachlili

In recent years, the problems confronting site museums all over the world have come to the fore. In May/June 1993, they were addressed at an international symposium, 'Interpreting the Past: Presenting Archaeological Sites to the Public', conducted by the University of Haifa, Israel, and co-chaired by Rachel Hachlili. Subsequently, an international seminar on a similar theme, 'UNESCO-Forum: Universities and Heritage', was organized in Valencia, Spain, in 1996, and a second seminar was convened in Quebec, Canada, in October 1997. In introducing this special dossier Rachel Hachlili evokes some of the problems encountered by professionals involved with site museums, ways in which these problems have been solved, and new developments in the field. The author was a founder of the Hecht Museum at the University of Haifa and directed it for four years; she also founded and directed the Museum Studies Programme at the university and has carried out fieldwork at a number of excavations in Israel. Among her publications is Ancient Jewish Art and Archaeology in the Land of Israel, published by Brill, Leiden.

The increase in archaeological excavations all over the world which, during recent years, have become tourist draws, has magnified the problem of site presentation to the public. It has become a major concern to many archaeologists, architects, designers and managers of cultural heritage. This popularity of archaeology is reflected in the public's fascination, response and participation in such sites.

But before the public can be invited to visit a site, however, it is necessary to ensure its preservation and protection. Among the different problems confronting site museums are how to preserve both the archaeological sites after excavations and rescue operations, how to maintain the material evidence of the past, and how to ensure the salvation of our cultural heritage. Also essential to the question of site museums is how much information is available for display, and how much reconstruction can be carried out.

Other difficult choices confront managers of national heritage in the face of financial and time limitations. Which sites should be rescued and which allowed to be destroyed? Which parts of the past should be preserved for the future? And, most importantly, on whose behalf will the chosen sites be preserved and sustained? Criteria must be established regarding preservation decisions and the designation of who will apply them.

Once chosen for preservation, such sites should serve the public interest, and offer facilities for teaching and research, educational activity and programmes, scientific work and experiments. The visitor must be provided with a portrait of the history of the site, permanent informative texts, and visitor facilities. In the presentation and display of archaeological sites it is necessary to marshal a wide variety of educational, economic, tourist and recreational resources.

Site exhibitions should include explanations of the motivation for the building of the site, and describe the history and life of the people who lived there. The social, economic and political aspects of the site should be illuminated, and the cultural history and heritage recounted, including an exploration of its roots. The natural environment of the site and how it changed is also an essential issue. The display should be concerned with public perception, political attitudes, and national traditions. It should provide an integral presentation with a vivid reconstruction of life at the site, creating an environment corresponding to the respective period. Artefacts excavated at the site should be displayed throughout.

Exhibitions are an effective means of interpreting the past, and conveying information to be assimilated by the visitors. The more they engage the visitors' interests and emotions, and create an enjoyable experience, the more likely they are to learn. Studies conducted recently found that the most important factors at visitors' centres appear to be the interpretive theme, the presentation media, and the overall atmosphere of the displays. The most effective exhibitions in terms of increasing understanding, enjoyment and motivation were those that had historical and human interest themes with which visitors could identify.

While in older displays the static exhibition of objects prevailed, and they were expected to speak for themselves, recent trends in site presentation show major changes. Today, the importance of interpretation and interaction is emphasized. A tendency towards commercialization is also observable. Many displays aim for more 'objectivity' and less ideological influence.

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Several examples of recent trends in interpretation used by museums built on archaeological excavation sites should be mentioned. One of these, the Jorvik Viking Centre in the United Kingdom, presents a full scale reconstruction. The York Archaeological Trust designed the site, the Anglo-Scandinavian Coppergate, based on all the archaeological data available from the excavations as well as the addition of sights, sounds and smells. Thus, a tenth-century neighbourhood was re-created. A special device of a ride in a backwards-moving car is employed to transport the viewer. Visitors are further provided with descriptions of archaeological work, archaeological remains, excavation offices and laboratories, and a display of artefacts.

Another example is the Ancient Qazrin Talmudic House, in the Golan Heights. The house is equipped with typical furniture and displays actual household objects and building material recovered from the original structure, and shows local and period craft activities. Megiddo (Armageddon), a site currently being prepared by an international group consisting of the Israel National Parks Authority, the Department of Archaeology at Tel Aviv University, and the East Flanders Government, Belgium, will use an audiovisual programme and non-intrusive hi-tech equipment to enhance its presentation of local life.

These exhibitions succeed not only in communicating information, but attitudes, values, and aesthetics as well. The activities of these site museums relate to real life. As such, they reach out to the community and present human qualities with which the visitors can personally identify.

Site museums are proliferating in many countries around the globe. Their popularity is growing and with it the need for a clearer understanding of the specific problems related to them. It is hoped that the articles in this special issue of Museum International will prove a useful and welcome addition to their study and development worldwide. ■

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Excavation and rescue operations: what to preserve and why

Christos Doumas

The major economic outlay that goes into the excavation, conservation and presentation of an archaeological site justifies the question,'Why should a society underwrite this expenditure and what should it expect in return?' In other words, as Christos Doumas points out, the philosophy of site preservation should be clearly defined and understood so that public policy aims at both safeguarding of cultural heritage and protecting society from pointless effort and expense. The author is a professor in the Department of History and Archaeology at the University of Athens.

Man's interest in his remote past is lost in the depths of history and is echoed in the creation myths that exist in all cultures. Architectural remains or graves of earlier periods, attributed to heroes and mythical forebears, have always held a special fascination and have been treated with respect. Indeed, for many peoples these ancestral monuments are, in a way, the title deeds to a specific territory. Moreover, instances abound of invaders and conquerors vandalizing monuments and destroying cemeteries in order to obliterate the ethnic identity of those they subjugated. So the preservation of visible monuments and the discovery of others is of special significance for a people.

This significance was diminished – if not destroyed – from the moment archaeology was established as a scientific discipline and excavation became its basic method of research. In their endeavour to come closer to a distant past – and indeed to eras for which there are no written texts – archaeologists have used this method to bring many monuments to light over the last 200 years. However, excavation, as part of the investigative process, is by definition a destructive method: it completely obliterates the environment and the conditions in which the archaeological evidence was preserved for thousands of years. And this destruction in order to reveal a monument exposes it suddenly to a new environment and new conditions that may well be hostile for its subsequent survival. In other words, excavation can be compared to a book, each page of which is destroyed immediately after it is read for the first time. That is, information recorded in the ground and relating to the history of the monument from the time of its creation until the moment of the archaeologist's intervention is destroyed. For this reason the onus of responsibility on the excavator as an individual and on the body that decides to conduct an excavation is great. What criteria determine whether to excavate or not? Answers to the questions 'Why am I digging?', 'What am I digging?', 'How am I digging?', can help in formulating the criteria on which the decision to carry out an excavation is taken.

'Why am I digging?'

It is thus clear that the sole aim of an archaeological excavation is, or should be, to advance scholarly research in the study of the past. Such an excavation is frequently combined with the educational process: it serves as a laboratory in which young scientifists are instructed in the process of archaeological research. However, experience has shown that scientific research is often invoked as a pretext for other, often spurious, ambitions. And by this we do not imply grave robbing, that is to say, clandestine excavation exlcusively for recovering movable finds, ancient works of art, for the purpose of selling them.

In Greece recently it has become the fashion for just about every mayor to lobby for an excavation in his village, not because he wants to learn or wants his fellow villagers to learn about the ancient history of their area – this may be a reason but as a rule village mayors with such interests are the exception – but to attract tourism. The association of tourism with archaeology and monuments is regarded as a panacea, and since it is a common conviction that tourism brings wealth, excavation to reveal monuments is deemed essential for a region's prosperity. This capitalizing concept of the usefulness of excavation differs little from the motives for excavations conducted in the past to legitimize the national identity of the Greek people after their liberation from the Ottoman yoke. In both cases excavation as a scientific method is suspect. Since the preordained aim is not

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strictly scientific, the danger of manipulating the data is great. Excavations with such aims should always be avoided.

There is of course the case of the so-called rescue excavations, that is, those carried out in order to salvage monuments or information about them, which are otherwise in danger of destruction due to construction work on a major or minor scale.

'What am I digging?'

Prior knowledge of the kind and character of the monument that the archaeologist's spade is called on to bring to light is extremely useful and can solve many of the problems likely to arise in the course of the excavation process. Isolated architectural monuments, complexes of monuments or settlements, cemeteries or solitary graves: each poses its own class of problems, demanding a specific approach, particular equipment and techniques, and appropriate specialist technicians. For example, the movable finds recovered from the excavation of a settlement are different from those found in graves. The latter, constituting a peculiar context, may produce evidence of materials that are not normally preserved in the ground, such as organic matter, bones, leather objects, papyrus, etc. As a rule, this evidence is fragile and sensitive, and at risk of perishing after sudden exposure to another environment. When the archaeologist knows that evidence of this kind might well come to light in the course of the excavation, he will be better prepared to save and conserve it.

'How do I dig?'

Starting from the premiss that excavation is by definition a destructive process, the manner of collecting the maximum possible information, keeping it safe and ensuring future access to it must be the excavator's basic concerns. Since the excavation is a book which is read only once, the reader/excavator should understand it as fully as possible. He/she should also record the information from the ground in such a way that it is possible, theoretically, to reconstruct the environment (context) in which it was kept. So, albeit destructive, excavation can be justified only to the degree that the recording of the information permits the potential reconstruction of this environment. Modern technology allows this detailed recording in the form of

'Since the discovery of ancient objects and their exposure to a new – generally hostile – environment takes place suddenly, their conservation essentially begins in the trench, where "first aid" is administered.' Here, the discovery in 1995 of Hellenistic statues from between the fourth and third centuries B.C. at Loukos in central Greece.

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written description (daybooks), plans/drawings, photographs, films/videos, casts, etc.

The basic precondition for conducting an excavation is the continuous presence of specialist conservators, depending on the kind of finds. Since the discovery of ancient objects and their exposure to a new – generally hostile – environment takes place suddenly, their conservation essentially begins in the trench, where 'first aid' is administered. The belief that the conservation of finds begins after their transfer to the laboratory is erroneous. Very often it is then too late.

On account of the high cost of each excavation, the number of 'systematic', i.e. programmed, excavations has been reduced drastically in recent years. However, the execution of major technical projects, a consequence of economic development, has led to an increase in both the number and extent of so-called rescue excavations. From the time human beings began living in permanent settlements they chose the most suitable sites in terms of geomorphology, natural resources and climatic conditions. In Greece, almost all the modern towns and cities have a history of several millennia of continuous habitation. Athens, Piraeus, Thessaloniki, Patras, Larissa, Volos, Thebes, Argos, Aegion, to mention just a few examples, are cities and towns which conceal thousands of years of history, recorded in stratified deposits several metres deep under the modern houses. So any works intended to maximize exploitation of urban land, by erecting multi-storey buildings, or to improve the urban infrastructure – water supply, drainage, sewerage, electricity, communications networks, etc. – have to contend inevitably with the existence of important antiquities. The construction of the underground railway system in Athens, which has transformed the city into an enormous work site, is a case in point.

Building and other activities in and outside the cities and towns has meant that Departments of Antiquities throughout the country have been transformed into huge excavation teams which carriy out their work under the constant pressure of economic interests, large or small, and under the threat of mechanical diggers. The disadvantages of these operations, known as rescue excavations, are many. The first and greatest problem emerges from the lack of co-ordination between the different state services. Decisions to carry out projects are not taken in collaboration with the Archaeological Service, the only body responsible under the Greek Constitution to uncover and protect antiquities. So they are begun and then interrupted in order to conduct excavations. Apart from the enormous financial burden on the project in progress, this course of action also has adverse effects on the antiquities. First of all, the responsible Department of Antiquities is under the constant threat of surprise and must be ready to go ahead with excavations without foreknowledge of the specific site and the kind of monuments concealed there. In such cases it is difficult to plan the excavation, which is often conducted without the essential provisions described above.

City centres: a special challenge

The proliferation of rescue excavations, primarily in urban centres, conceals other serious dangers for the antiquities. The continuous recovery of movable and immovable finds makes it impossible to conserve them immediately. So, on the one hand, the immovable monuments are exposed from the outset to deterioration, even before their documentation is completed, and, on the other, the movable ones are crammed into inadequate storerooms until – no one knows when – their

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turn comes to be washed, cleaned and conserved. As for their study and the drawing of conclusions on the history of the site where they were preserved for thousands of years, the least said the better.

It is true that over the last few decades a policy of preserving noteworthy immovable monuments in the basements of new urban buildings has been implemented, with satisfactory results. The problem is more complex when an ancient monument extends below more than one modern property, and its investigation, documentation and evaluation are consequently incomplete.

A second method of protection that has been applied in Greece is to rebury the monuments after excavation by filling in the site where they were found. This strategy, applied in both the urban environment and the countryside, perhaps constitutes the safest one for preservation.

Another effective method is the roofing of both single monuments and groups of monuments. This ensures that the monuments thus preserved are visible and visitable, that is, accessible to both specialist and layperson alike. However, apart from the considerable financial outlay involved, the erection of a shelter presents the problem of spoiling the natural landscape. In recent years attempts have been made to reduce the unfavourable effects on the environment with solutions attuned to local circumstances. For example, the roofing of the entire funerary complex beneath a subterranean vault at Vergina, Western Macedonia, permitted the restoration of the form of the ancient tumulus that originally covered the royal tombs. The new roofing of the prehistoric city at Akrotiri, Thera, which was completely buried under thick layers of volcanic ash in the mid-seventeenth century B.C., will also be underground. Roofing also provides the possibility of creating museum sites. By combining the enhancement of the monuments with thematic on-site exhibitions, the educational character of the site is more effectively promoted and the history of the society that created the specific monuments is more vividly experienced and understood.

Of the efforts made so far to protect and preserve monuments it has become clear that each case is a singular one and must be confronted on its own merits. In addition to the factor of cost, that of purpose must be taken into consideration when choosing the manner of preserving the testimonies of the past. For if preservation is ensured by filling in the site, for example, the monument cannot be exploited for tourism or education since it ceases to be visible and visitable. ■

'Any works intended to maximize exploitation of urban land . . . have to contend inevitably with the discovery of important antiquities.' Building construction in the Rocks quarter of Sydney, Australia, was interrupted by the discovery in 1995 of an important archaeological site.

Eketorp Rediviva: 'an ongoing scientific discussion'

Bengt Edgren

The subject of archaeological reconstruction gives rise to heated debate between detractors and supporters. Bengt Edgren of Sweden's Central Board of National Antiquities, National Historical Museums, makes the case that by bringing the archaeological heritage to life through careful reconstruction, a site can become both a source of continuing scientific discovery as well as a tourist, educational and economic resource. The encounter between excavation and reconstruction, visitor and archaeologist at Eketorp has been, in his view, a resounding success, and the experimental part of the project has often led archaeologists to re-examine and reinterpret the excavation results.

The first archaeological reconstruction in Scandinavia was a stone-age house built in 1879 in Denmark. The house is still standing in the open-air museum in Odense. In Sweden, a first attempt appears in an experiment carried out in 1919 on the initiative of the Swedish ethnologist, Ernst Klein. Helped by count Eric von Rosén, the experiment took place on his estate, Rockelstad, south of Stockholm. Two students with the right physical qualities were employed to live Stone Age life during the summer of 1919. That meant gathering food for themselves and building their own house with replica Stone Age tools. The experiment is described by Klein in his book Stone-Age Life.[1] Klein explains that he wanted to get a clear view of some of the technical problems people had to face at that time and, if possible, find solutions. To live under the same conditions would make it easier to come to a probable conclusion than through a theoretical analysis of Stone Age material.

Klein's statement is very clear. Practical experiments can often be superior to theoretical hypotheses. I believe this opinion is present in most projects dealing with archaeological reconstructions, although more or less emphasized by the different archaeologists involved.

Lojsta Hall, an Iron Age house reconstructed in 1932.

In Sweden, the next reconstruction came in 1932 at Lojsta, on the island of Gotland in the Baltic. After having excavated an Iron-Age house from the Migration Period (A.D. 400–550), the excavators asked the Director General of the Central Board of National Antiquities in Stockholm for permission to rebuild the house on the site. Permission was given under the condition that the remains of the excavated house be protected with a layer of soil. The reconstruction at Lojsta still stands and is today a monument in its own right.

After Lojsta Hall no reconstructions were made in Sweden until the Central Board of National Antiquities started rebuilding Eketorp ring-fort. Eketorp is situated on the island of Öland, east of the Swedish mainland, where there are more than 10,000 registered prehistoric monuments. The majority date from the Iron Age and most of them are various kinds of graves.

The most important evidence of Iron Age daily life is more than 1,300 preserved houses with connected fencing systems. There are at least fifteen ring-forts, all built during the early Iron Age. The southernmost of them is Eketorp. The prehistoric monuments are so conspicuous on Öland that no visitor to the island can help admiring them and asking questions about what they represent. To try to explain this by means of reconstructions is therefore more natural and reasonable on Öland than in any other province in Sweden.

Eketorp was described by the famous Swedish scientist Carl von Linné (Linnaeus), who visited the site in 1741. He wrote: 'We saw Eketorp ring-fort with its ruins and collapsed walls, which lay a quarter of a mile from the eastern shore and which was in times past one of the finest on this island: for it was one musket shot in diameter with a well in the middle which always yields

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water. Without any doubt these forts were places of refuge for the islanders before powder and bullets were invented.'[2]

Between the visit of Linnaeus and Eketorp's status today as one of the most visited archaeological museums in Sweden, the excavation that took place from 1964 till 1973 confirmed Linneaus' supposition that the fort had once been a refuge for the islanders in ancient times.

The excavations

The excavations revealed three different settlements, named Eketorp-I, II and III. These settlements all existed on the same spot, on top of each other, Eketorp-I at the bottom and Eketorp-III at the top.

Eketorp-I had a ring-wall with a diameter of 57 metres. In the south was a gateway and within the wall some twenty houses with an open square in the middle. This fort was built in the fourth century A.D.

Eketorp-II followed immediately after Eketorp-I and the new ring-wall that was built had a diameter of 80 metres. This means that the enclosed area was doubled. In addition to a gateway to the south there is another one to the north and a smaller one to the east, leading to a water-hole just outside the wall. Within the wall are fifty-three structures: twenty-three dwelling houses, twelve stables, twelve storehouses and six houses with mixed functions. Most of the houses were built along the ring-wall and some create an irregular block in the middle of the fort. The Eketorp-II settlement was abandoned in the seventh century A.D.

Eketorp-III is a late Viking/early medieval settlement that reoccupied the ringwall of Eketorp-II but had a totally new type of house inside the wall. The defence was strengthened by keeping only the south gateway; the north and east gateways of Eketorp-II were blocked. A low outer wall was also added some 10 metres outside the ring-wall. Eketorp-III existed from the eleventh till the twelfth century, when Eketorp was finally abandoned.

When the excavation was completed, the Director General of the Central Board of National Antiquities appointed a study group to draw up a scheme for the future of Eketorp, which group agreed that the fort should be partially restored and the following principles for the project were defined:

The reconstructions are to give the visitor a vision of what the last two of the three settlements on the site looked like.

The visitor must be able to obtain information on the results and artefacts of the excavation in their natural and historical context as well as the archaeological facts that are the basis for the reconstructions.

When archaeological evidence and facts are lacking, hypotheses must take over, with reference made to reasonable ethnological parallels, and the reconstructions themselves are to be seen as a contribution to scientific archaeological discussion.

The reconstructed fort must be kept alive by means of various scientifically based experiments and activities designed to stimulate communication between the public and scientists.

Work on the site must be carried out with respect for natural and historical values.

The reconstructed ring-wall of Eketorp.

Today, three quarters of the ring-wall have been rebuilt, as has one of the gates into the fort. Within the wall five migration period houses have been reconstructed as well as four medieval houses from the last settlement phase.

The reason for the decision to start this large-scale project is given by Roland Pålsson, Director General of the Central Board of National Antiquities at the time:

> The standing instructions laid down by the Government and Riksdag attach great importance to bringing the cultural heritage to life. There is a great deal of interest in archaeological remains and cultural monuments, and 'cultural tourism' is an important but often somewhat neglected aspect of our leisure outings, especially during the summer season.

But in spite of their immediate impact, archaeological remains are often difficult to 'decipher', in which case they do not convey the information and living experience that are wanted. Until very recently, archaeologists in Sweden were very chary of historical reconstructions – more so than their colleagues in other European countries. As scientists they were inhibited by an awareness of the limitations of their knowledge and of the inevitable influence on a reconstruction of contemporary ideas.

The reconstruction will not be 100% historically truthful. It will, of course, be based as far as possible on the extensive material resulting from the scientific investigation, but it is also to be regarded as an ongoing scientific discussion. Gaps in the documentation will have to be plugged hypothetically in our efforts, by means of restoration,

> to create an effective illusion aimed at reproducing something of everyday life in prehistory. [3]

These quotations demonstrate that Eketorp was a deliberate break with a long antiquarian tradition in Sweden not to work with reconstructions in any form, especially not on the actual site of a monument. The knowledge of weaknesses in the archaeological base is compensated by the possibility of bringing the cultural heritage to life for a broad public.

It can be said today that Eketorp has broken new ground in showing the need to explain complicated archaeological results to the public in a way that it understands and finds exciting. Reconstruction as a pedagogical instrument is now well established. The fact that new knowledge can be obtained from working with reconstructions is also better recognized today. The work in Eketorp has led to new knowledge about migration and early medieval house construction. It has also deepened the understanding of the function of the houses of Eketorp and of the fort itself.

The reconstruction

A lot of effort has been put into the reconstruction of the wall of dry limestone masonry from Eketorp-II. It is about 250 metres long, 5 metres thick at its base, and the best preserved parts are over 2 metres high. The original wall has been retained as much as possible, in some parts up to 2 metres, in other parts not at all where the stone is too eroded and the wall badly damaged. The reconstruction of the wall was based on a cross-section through it; the volume of the debris has been estimated and added to the preserved part of the wall, giving a minimum original height of almost 5 metres. A parapet on top of the wall adds another 2 metres However, as there is no material evidence of a parapet remaining in Eketorp, this is therefore a good example of the dilemma archaeologists are faced with when reconstruction is forced beyond the limits of their knowledge.

When dealing with the problem of how to finish the top of the ring-wall, we thought the best contemporary breastwork to imitate was the Roman one, because of the frequent contacts between Öland and the Roman Empire shown in the imported goods found in Ölandic graves and settlements. To say that the people who built

The Eketorp pig, a back-breed with an Iron Age look.

© Anders Johansson

Eketorp had directly or indirectly seen Roman fortifications is not a bold supposition. We therefore built a crenellated parapet of Roman proportions. Although the same thing had been done in drawings of Eketorp before without any critical comments, we were now accused of having gone too far. Could the parapet not have been made of wood and had it really been crenellated on Öland as early as this?

The reconstruction of the houses in Eketorp-II is based on the remaining walls, the position of the post-holes and supports found in the houses and other stone structures indicating the function of the houses, such as fireplaces in the dwelling-houses, byres in the stables and typical stone pavings in the storehouses.

From the medieval houses, the position of the walls was found through the preserved stone sills. The type of house that is indicated, a wooden construction with a framework with horizontal planking, is still extant on Öland in an archaic form. We therefore have good reason to believe that this building tradition goes back to the early medieval period on the island.

The building materials used in Eketorp all come from the island: limestone for the walls, oak for the roof-supporting construction, reeds from the shores of Öland and turf from the Alvar plain around the fort. If not contradicted by the excavation results, all materials that still exist or are documented as having been used in older buildings from Öland can be fairly tested in the reconstructions.

We have used machines when they do not effect the quality of the reconstruction but accelerate the work and lower the cost in a decisive way. The stone we buy is broken with the help of explosives, delivered to Eketorp on lorries and then lifted by a truck to its position in the wall.

The larger trees used in the houses are cut with power saws but are then cut manually with an axe to the requisite shape and dimension. Holes for the wooden nails are manually drilled and different joints are made with axe, knife or chisel. When building the medieval houses, only replica tools from the early medieval period have been used.

Meeting the public

The experimental side of the work in Eketorp is of course dominated by the building-process itself and the wider knowledge about all the different building techniques that were practised in Eketorp. The big difference between reconstructing on paper and in reality is not surprising, but is all the same worth mentioning: what looks difficult on paper is often easy in real life, and vice versa. We have learnt that building models that are not too small is a good bridge between these two steps.

The works in Eketorp are among other things meant to stimulate communication between the general public and archaeology. This is effectively achieved by doing all reconstruction work during the summer months when Eketorp is open to the public. Visitors always have an opportunity to put direct questions to the archaeologists and the craftsmen working in front of them. Work is slowed down considerably by this, but we believe it is worth while.

Over 1.7 million people have visited Eketorp since the reconstruction work began in 1974. During a normal summer, 100,000 visitors arrive over a four-month period. In one season more than 1,000 guided tours are performed by academically trained museum-teachers. Special tours for children show the animals that are moving freely within the museum

area. A favourite is the Eketorp pig. It is the result of a back-breeding project that has produced a new pig with the appearance of the Iron Age pig of Eketorp. The project is based on the osteological material from the excavation.

A special archaeological workshop has been set up where children together with their parents can try to make their own arrow-head in the smithy, create their own Iron Age pot, cook a medieval dinner and afterwards eat it and weave on a vertical loom or listen to Iron Age instruments.

A museum was built inside the fort to display some of the archaeological finds on the spot and to explain the knowledge the excavations had yielded. It resembles, in shape and materials, the Eketorp II houses from the Migration period. Although the walls of the museum are not original, their position is, and doorways of the Iron Age houses have been reproduced in the front of the building facing the western square, with the north and south walls built using stones from the old house walls in the central quarter.

The many modern details of the museum building – the wooden floor, glazed windows and roof lights, a supporting structure of arches and a modern exhibition – make it clear to visitors that the museum does not form part of the authentically reconstructed fort. The exhibits are merely a selection of the 26,000 finds, with the rest deposited in the Museum of National Antiquities in Stockholm.

My experience from working close to the public in Eketorp is that the main interest of visitors is not in the monuments or artefacts revealed by the excavation but in the people who once lived there. Questions are mainly about their everyday life: where did they sleep, where were the toilets, did they swim, what did the children play with, what language did they speak? At the same time there is a difficulty in understanding that prehistoric people are the same species as ourselves, that on Öland they were well fed and almost as tall as we are today, that they had the same intelligence. Eketorp Rediviva helps people realize these things better, the reconstructions make prehistory less dramatic and more human. ■

© Karl Erik Granath

Interior of the museum at Eketorp.

Notes

1. Ernst Klein, Stenåldersliv [Stone Age Life], pp. 48 et seq., Stockholm, 1920.

2. Carl von Linné, Öländska resa förrättad, 1741 (edited with comments by Bertil Molde) Stockholm 1962).

3. Roland Pålsson, 'Why We Banked on Eketorp', ICOMOS Bulletin (Uddevalla), No. 6, 1981, p. 188.

The Luxor Museum of Ancient Egyptian Art: the challenge of abundance

Madline Y. El Mallah

The city of Luxor may truly be said to be a cradle of all humanity's cultural heritage; however, it also remains an urban environment which must cater to the everyday needs of its inhabitants. How to involve the local community in the programme of a site museum which is one of the world's foremost international tourist destinations was thus the challenge facing the Luxor Museum of Ancient Egyptian Art. The author is general manager of the museum.

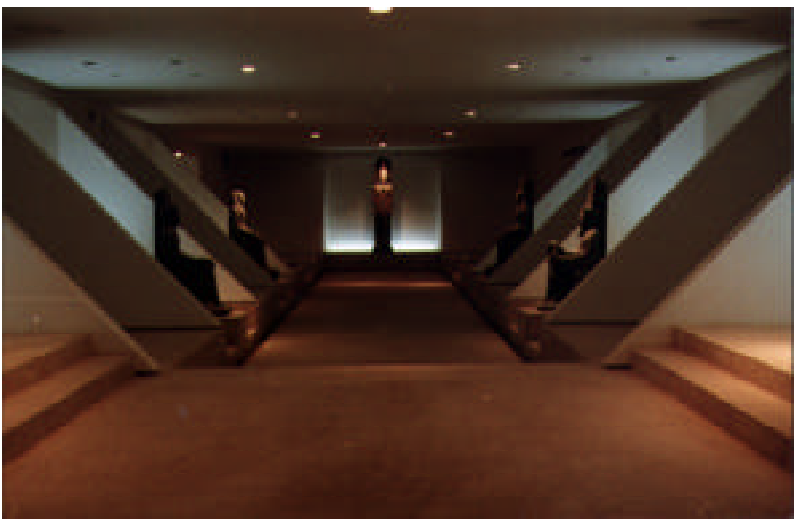
The Luxor Museum of Ancient Egyptian Art is set in an exceptional location in the ancient and world-famous town of Luxor, which lies nearly 670 kilometres south of Cairo, the capital, and has a population of approximately 70,000. The museum is situated in a superlative position on the Nile Corniche road which connects the Luxor and Karnak temples, parallel to the great River Nile and facing the Ramesseum on the west bank. The river traverses the town centre, thus dividing it into two sections.

The first section is on the east bank, where the larger and principal part of the town lies and where ancient Thebes was a metropolis of Egypt for a period of over three centuries during the 18th and 19th dynasties of the New Kingdom (1550–1196 B.C.). The other section of the town is on the west bank of the Nile, where the ancient Egyptians built their mortuary temples to the gods alongside the dead pharoahs lying in their royal tombs.

Magnificent temples were consecrated for the worship and homage of Amon, his consort the goddess Mut and their son Khonsu, who together represented the Theban triad. The Luxor temple is located in the southern part of the town and the Karnak temple in the northern part.

The town has had various names since the beginning of history; it was called Weset by the ancient Egyptians and was referred to as Nu Amon, or the town of Amon, during the period of the Old Kingdom. Its Greek name was Thebes. Following their invasion of Egypt, the Romans established a large military garrison around the Luxor temple. When the Arab conquerors saw the remnants of its forts, they thought that they were palaces and so gave them the name of al-uqsur, which is the plural form of the word qasr (meaning 'palace' or 'castle'). The name was then distorted by European languages to form the town's present name of Luxor.

Photo by courtesy of the author



General view of the cache room opened on 21 December 1991.

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The wealth of the Egyptian empire, which extended from the Mediterranean Sea in the north to the Third Cataract in the south during the New Kingdom period, poured into Thebes, making it the richest city in the world. This wealth was reflected in the different forms of art and architecture in the town. As such, Luxor was replete with pharaonic antiquities of an abundance and splendour without compare elsewhere in the world, the effect of which was to turn Luxor into an open-air museum of human history and age-old civilizations.

Given the copious wealth of rare and valuable antiquities discovered in Luxor, the Egyptian Ministry of Culture conceived a plan in 1962 to build a museum there and commissioned a leading Egyptian architect, engineer Mahmud Al-Hakim, to produce the necessary engineering and architectural designs. Construction was finished in 1969 and the museum assumed the status of a regional museum for the exhibition of antiquities discovered in the town of Luxor. The exhibits were scrupulously chosen from among the treasures in storage in the region and, with the internal and external displays complete, the museum was officially opened on 12 December 1975. On leaving the museum, visitors witness a unique panoramic view of the west bank.

The museum galleries are on two levels, which are connected by two ramps. The latest museum display methods have been used with a view to highlighting the artistic beauty of the exhibits. These rely entirely on artificial lighting, a background of dark grey walls and ceilings and simple stands for the objects, the result being that the the displays are not cramped or crowded, leaving the eye free to focus on the exhibits. Visitors consequently have a relaxed feeling which is conducive to becoming fully absorbed in the contemplation of each individual work.

The Luxor temple cache (see below) was stumbled upon by sheer accident in 1989 while routine soil samples were being taken from the courtyard of King Amenhotep III. The cache consists of unique and unusual statues of various gods, goddesses and kings which are very well preserved and exceptional in their beauty and magnificence. When the discovery was made, it was decided that a special room be allocated for the exhibition of this priceless treasure. Such a room was therefore added and an innovative method of exhibiting this unique collection was also devised.

Generally speaking, all the museum exhibits were unearthed during excavations of the area and were brought out of their storage there. They also include various pieces returned from the Egyptian Museum in Cairo to their original home of Luxor, where they were found among the funereal trappings of King Tutankhamen when his tomb was discovered in 1922.

Creating value for the community

The word 'museum' is no longer restricted in meaning to a place where works of art from bygone civilizations are preserved, exhibited and presented to the public as befits their artistic and historic value. On the contrary, the meaning of the word has now broadened to signify a cultural institution of considerable importance, which plays an influential role in the education of society, the enlightenment of human thought and the growth in awareness of civilization, art and history.

Those working in the Luxor Museum were faced with a major problem once it had opened. Being situated in the town of Luxor, which has such a wealth of antiquities and is a focus of world interest visited by tourists from all over the globe, the

Photo by courtesy of the author

Façade of the Luxor Museum overlooking the Nile Corniche.

museum now represents a fresh tourist attraction to which package and individual tourists flock to be amazed and dazzled. However, despite the status it has acquired, the museum constitutes nothing of value to the townspeople, who are daily witnesses to the sites of antiquity surrounding them on all sides in what resembles an open-air museum whose precincts they inhabit.

The museum administration was therefore compelled to plan an educational project with a view to creating a form of interchange between the inhabitants of Luxor and the museum, which houses works of art bequeathed by their forefathers from ancient civilizations. This educational project was based on a number of key aspects.

First and foremost, regular monthly seminars and meetings are held to which the townspeople are invited, the aim being to highlight the most significant of the archaeological discoveries which emerge daily during the course of research and excavation work carried out by Egyptian and foreign archaeologists working on archaeological digs. The result is to create an awareness of civilization among the members of the public and familiarize them with the happenings in their midst, as well as to establish a link between them and their history and civilization. These seminars and meetings are run by a group of top Egyptian and foreign scholars.

The museum also devotes attention to issues involving antiquities and matters of heritage which exercise public opinion and arouse controversy. This it does by occasionally holding public seminars to shed light on the specific subject, to clarify any controversy surrounding it and to eliminate any confusion over it. An example of the issues tackled is the iniative to dismantle, restore and reassemble the columns in the hall of Amenhotep III in the Luxor temple, which was variously condoned and condemned by the press, a situation which divided the townspeople into two groups, for and against the project. In their comings and goings, opponents of the work saw these giant columns gradually dwindling in size during the dismantling process and noted the resulting disfigurement of the temple courtyard. When the columns finally vanished altogether before their very eyes, they wrongly believed that they had seen the last of them. With a view to eliminating this mistaken belief, the Luxor Museum seized the initiative and organized a scientific seminar attended by the archaeologists, soil engineers and restorers concerned. Invitations were addressed to the people of Luxor in general and to those working in the fields of tourism, antiquities and the media in particular. The seminar covered the scientific, archaeological and environmental aspects that had made it necessary to implement the project aimed at saving this great hall. It also covered the scientific method used to carry out the work with the help of sophisticated technology. The interchange between the audience and the specialists was extremely positive; the members of the audience learnt what was going on in their midst and ultimately found themselves in favour of the project.

The museum has assumed an influential teaching role in society by devising an educational programme entitled 'Museum

Education'. The prime focus is on aiming this activity at pupils in varying stages of education. A number of museum staff received training in how to deal with different age-groups and respond to their queries. The staff were also supplied with illustrative photographs, colour slides and video films relating the story of the museum exhibits and the history of the town, as well as with the equipment needed to project the slides and films. A timetable was drawn up during the academic year for the museum staff to go into schools and give talks, which they would follow up by providing escorted visits to the museum. All such action was taken in co-ordination with the town's educational department and school head teachers. The broad awareness of the pupils was in evidence from the questions which they put to their guides. At the end of their tour, they completed a form registering their impressions of the visit and their suggestions for improvements.

A major accomplishment of the programme was that it revealed the potential for lively and positive interaction between the museum and its target public. The museum administration used the suggestions to develop and simplify the form of labelling so as to give swift yet comprehensive information on the displayed pieces. The success of this key aspect has encouraged us to pursue this same activity and further extend it to the social clubs that serve as meeting places for young people and adults.

A constantly expanding collection

The Luxor Museum is a place of major archaeological interest in Egypt, located in an area containing two-thirds of the country's antiquities. It was therefore essential that its collection of exhibits should be rich and varied enough to show all aspects of the history and art of Luxor. The museum administration therefore proposed expansion of the exhibition rooms and extension of the museum so that acquisitions stored in the area and unearthed by excavation in successive seasons could be added to it. The Higher Council of Antiquities responded favourably to this proposal and the process of expansion is now under way.

© Antoine Chéné and Romain Perrot

Cow head of the goddess Hathor made of wood covered with gold leaf. The horns are fashioned from copper and the eyes are inlaid with lapis lazuli.

The excavations in the region uncover, sometimes by mere chance, unique artefacts, which should be exhibited in the museum for the world to see. Such artefacts may be in urgent need of rapid intervention in the interests of their restoration and preservation so that they can be suitably exhibited. In that connection, the museum faces a number of difficulties, as there is no workshop where restoration and preservation work can be carried out using the modern tools and equipment essential for treating the condition of such artefacts. A request has been submitted for the establishment of an integral workshop in the new wing. Despite the lack of a specialist workshop, however, there are a number of expert restorers who are well qualified to handle antiquities on the basis of their raw material or condition. If local resources are incapable of caring for an artefact, help is sought from specialists in the central museum administration in Cairo.

Diorite statue of King Horemheb and the god Atum. The plinth of the statue was the first item discovered in the Luxor temple cache.

For it to be successful, the activity of conveying the museum's educational and cultural message concerning the surrounding site must be conducted inside the museum in a hall specially allocated for the purpose, and not in schools and clubs, as is the case at the moment. A request therefore had to be made for two halls, one in which lectures and seminars can be held and the other in which schoolchildren can pursue museum-related art activities. These halls will form an integral part of the museum's new wing.

The main antiquities on exhibition in the museum include the statue of King Tuthmosis III of the 18th dynasty (1490–36 B.C.). Made of green slate, this statue was discovered in 1904 in the Karnak temple cache north of the seventh pylon in this famous temple. As the town had no museum, the statue was sent to Cairo for exhibition at the Egyptian Museum with other discoveries from the cache. It was then returned to its place of origin when the Luxor Museum opened. This particular statue is regarded as one of the museum's main acquisitions and is the one that provokes most comment from visitors, as the King's noble facial features convey his confidence in himself as a ruler and god, the Egyptian sculptor having masterfully succeeded in bringing out that particular expression, thus making this statue one of the most beautiful pieces of ancient Egyptian art.

The statue of the god Sobek and King Amenhotep III of the 18th dynasty (1403–1265 B.C.) is a singular piece made of calcite

and was found inside a well made for it, together with a number of paintings and statues depicting the god as a crocodile, during excavation work to clear a canal in the area of Suminu, now Dahamsha, south-west of Luxor. A small temple was undoubtedly consecrated to the god in this spot, which was showered with votive offerings by his slaves and believers in his power.

This statue demonstrates the Egyptian sculptor's success in creating a balance between the physiques of the pharaoh and god, despite their difference in size, by eliminating part of the rear panel above the pharaoh's head and bringing his head level with the god's head, crown included. Ramses II claimed this statue for himself, removing the name of its original owner and replacing it with his own name. Fortunately, however, he did not touch the king's distinctive features, which remained intact, thus affirming the origin of the statue of King Amenhotep III.

The harpist and female dancers is a building slab in quartzite from the time of the 18th dynasty of the New Kingdom (1475–68 B.C.). The slab was part of the obelisk built by Queen Hatshepsut in the Karnak temple which was later named the Rose Obelisk because of the colour of its stone. It shows a group of dancers and singers accompanied by a harpist in one of the religious festivals that used to take place in Thebes during its heyday. The depiction of the graceful bodies illustrates features of the art of the 18th dynasty.

The Luxor Temple cache: a major discovery

The site of the Luxor Museum continues to reveal its secrets. The most recent discovery, and also the most important of the penultimate decade of the twentieth century, was made in the hypostyle hall of Amenhotep III, the builder and founder of the Luxor temple (1403–1365 B.C.), where a collection of rare statues known as the Luxor temple cache was uncovered.

The initial cache discovery was made on 22 January 1989 and produced twenty-four statues of gods, goddesses and pharaohs, most of them in an excellent state of preservation. Discoveries continued to be made until 20 April of the same year, when the last piece was unearthed at a depth of 4.5 metres below ground level. This piece was the sacred beard of Amon, whose statue had been discovered previously on 28 March. Sixteen of the statues were selected for exhibition in the Luxor Museum, where a room was set aside for them in the first basement, having been specially designed to give visitors the freedom to view the antiquities from all sides, using focal lighting to draw the eye to the aesthetic elements of the exhibits. Care was taken to ensure that the chosen statues were not placed on stands, but on a raised platform reached by stairs, the effect of which is to imbue the pieces with a divine and awe-inspiring quality befitting statues of goddesses who were held sacred in ancient times and of kings elevated to the status of gods. The most famous and unusual of the statues in this collection are as follows.

A composite statue of the god Atum and King Horemheb consisting of two statues in diorite from the 18th dynasty (1338–08 B.C.)

The statue is set in a hollow carved in a separate base, which was the first item found in the cache. This unique assembly of the three pieces (the two statues and the base) is an incomparable find. It represents

King Horemheb kneeling in worship to the god Atum and offering him two spherical-shaped vessels. He is wearing a headdress, the front of which is adorned with the sacred cobra, and the short tunic known as a shandeth. The god before him is seated on his throne, which is decorated on both sides with two Nile gods, with the symbol of the unity of the Two Kingdoms entwined by papyrus plants on the right and lotus plants on the left, these being the symbols of north and south.

The statue in red quartzite of King Amenhotep III from the 18th dynasty (1405-1365 B.C.)

This giant statue, which is 239 cm. in height, is regarded as the most impressive of the discoveries made in the cache. It shows King Amenhotep III in the prime of youth striding forward and trampling on Egypt's traditional enemies symbolized by the nine arches on which he treads without flinching. Despite the particularly solid stone from which the statue is made, the Egyptian artist has successfully employed his skill to show the king's body in remarkable symmetry, as well as the details of the short tunic which he is wearing and which bears the name of King Nb Maet Ra in the bottom centre inside a cylinder called a cartouche, encircled by four sacred cobras with the sun above. When the statue was brought out of the ground, traces of gilding were visible on the crown, the wide collar and the bracelets adorning the king.

It is actually difficult to imagine the painstaking work involved in engraving the many fine and splendid details on the king's tunic, particularly at the back. Visitors have to see these details for themselves in order to appreciate the exceptional skill of the Egyptian sculptor and his mastery of his tools.

The statue in diorite of the goddess Hathor from the time of King Amenhotep III

The goddess Hathor is regarded as one of the most important Egyptian goddesses. The sky goddess and protectress of life and love, she was worshipped either as a cow or as a female form wearing a crown of cow's horns with the sun lodged between them. This statue depicts her as a woman seated on her throne, which is unembellished by engraving, wearing her distinctive crown over a wig and holding the staff of life in her left hand. Both sides of the throne bear the name of King Amenhotep, who is portrayed as Hathor's lover.

The statue of the goddess Ayunet in grey granite

Although this goddess had been worshipped in the area of Thebes since the 11th dynasty of the Middle Kingdom (approximately 2061–1991 B.C.), only one statue of this size and in such well-preserved condition was found. She was the consort of the god Montu, who was a warlord and master of Thebes at that time. The statue portrays her as a graceful woman with an appealing smile on her beautiful face, making it one of the most attractive statues in ancient Egyptian art.

It is clear that the museum is indebted to the town, with its rich heritage, for the acquisition of its collection. I am confident that the future will unveil many works which are no less splendid than the pieces already discovered in the area. The soil of Luxor still shelters many of these antiquities and takes greater care of them than would many human beings. ■

The Museum of Carthage: a living history lesson

Abdelmajid Ennabli

The fabled city of Carthage has fired the imagination of artists and poets since its very beginnings more than 2,000 years ago. A rival of ancient Greece, then of Rome, Carthage has been razed and pillaged by invaders jealous of its fortunes, only to be reborn time after time. In the twentieth century, creeping urbanization and a tide of concrete threatened to submerge it once and for all until the international community responded to the 'Save Carthage' appeal launched by UNESCO in 1972. Teams of archaeologists from ten countries – more than 600 in all – worked to uncover layer after layer of history and to study and preserve this unique site. Abdelmajid Ennabli played a key role in the international campaign and has been curator of the Museum of Carthage since 1973. He is the author of several articles and publications on Carthaginian history and archaeology and is director of research at Tunisia's National Heritage Institute.

The Museum of Carthage is first and foremost the museum of a site, a great archaeological site with a prestigious history. It is the site that nurtures the museum and the museum that illustrates its history. Ever since a princess from the East chose the peninsula to build a 'New City' over 2,800 years ago, people have always lived, worked and concentrated their wealth here, even though the city that succeeded ancient Carthage from the Middle Ages onwards was built a few kilometres inland to where the peninsula joins the mainland.

Today, we have come full circle. The site of Carthage is now part of the District of Tunis and its future is linked to the development of the capital. But the site of the ancient city has been spared the relentless building activity that has taken hold of the present-day metropolis, and has been dedicated to memory and culture. Today, with urban development stretching as far as the eye can see, it has been safeguarded as an archaeological park for excavation and research. In the heart of this area, on the most famous hill, the museum stands as the custodian and living witness of the civilizations that flourished here.

By climbing the hill, the visitor begins by gaining an overall view of the geographical setting and the physical vestiges of successive civilizations, and can also understand the reasons for such continuity, for the city was built on a peninsula, looking out on to a wide bay, at the entrance to an accessible hinterland – an ideal location, as has been proved over and over again. From the top of this acropolis the topographical features and historical significance of the site can be fully appreciated.

The proposed itinerary for the tour can be likened to a play in three acts: the first covers the panoramic view and discovery of the site, the second takes the spectator on a walk among the remains of Byrsa, and the third concludes with a visit to the museum.

Before setting out on this tour, a brief outline or reminder of the historical background may be useful. Carthage was the site of two cities belonging to two rival and successive civilizations. The first was the Phoenician or Punic city founded by Dido in 814 B.C. and destroyed by Scipio in 146 B.C. The 'New City', modelled on Tyre, established on the coast of Africa, the new continent, which became the capital of a new kind of empire owing its prosperity to maritime trade all over the Mediterranean, its position halfway between the civilized East and the commodity-rich West with a chain of ports and trading posts set up all along the coast, ensuring constant defence against both the Greeks to the West and indigenous peoples of the continent. The city next fought a long and bitter duel with Rome lasting more than 100 years, ending in a crushing defeat which razed it to the ground. Then Rome, which had destroyed it, decided to rebuild it on the same site and designed it to serve Rome.

The city soon grew prosperous enough to rank second in the Roman Empire in the second century A.D. This was hardly surprising. The site had already proved its worth under the Phoenicians and its strategic position was now compounded by the scale of the Roman Empire, master of the constellation of provinces around the *mare nostrum*, among which the province of Africa was one of the brightest stars.

With the *pax romana* on land and sea, agriculture prospered and harvests were exported. Carthage was the gateway to the fertile African hinterland and its port faced Ostia, the supply route to Rome and its sovereign people. As the capital of a wealthy and prosperous province, cherished and

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Photo by courtesy of the author

Aerial view of the site with Byrsa Hill in the centre.

controlled by all the emperors, it was endowed with the largest and finest public buildings and facilities and, in accordance with a plan covering the whole of its territory, the hill was surmounted by a grandiose forum. Apuleius called it the 'Muse of Africa'.

From being pagan, the city became Christian, albeit at the price of persecutions. It witnessed several schisms and underwent Vandal occupation for a century before being delivered on the orders of the Byzantine Emperor. This resurrection did not last for long. Weakened, as was the whole Empire, it was taken without the least resistance by the Arab conquerors. They then deserted it for Tunis, which was farther from the coast and safer. From then on, Carthage went into decline and its population dwindled. For many centuries it was used as a quarry for building materials. Its monuments were torn down, the blocks of stone removed and its columns and marble carted away. The flattened ground returned to agriculture which prospered until the nineteenth century, when the enthusiasm for archaeological artefacts once again caused the earth to be turned. With the establishment of the French Protectorate, the first Catholic buildings appeared, including the former cathedral and the theological college of the French monastic order of the Pères Blancs in which the museum is now housed. In less than a century the whole of the peninsula was built up, except for Carthage, where an effective development plan has enabled a large part of the area to be preserved. This was the will of the sovereign state of Tunisia, supported by the international community headed by UNESCO, which included the site on the World Heritage list. An area of 500 hectares has thus been saved from urbanization and preserved for excavation, research and rehabilitation as the Carthage National Archaeological Park, set up by the Decree of 7 October 1985.

The heart of this great enterprise is Byrsa Hill which was the historical nucleus of Punic and then Roman Carthage, and which providentially is now where the museum stands as a temple to the memory of these illustrious civilizations.

Let us begin at the beginning.

Act 1: discovering the site

No one goes to Carthage unprepared. We arrive with preconceived ideas and ready-made images. And the contrast between what we have imagined and what we actually see, between what the history books tell us, what our imaginations have conjured up and what now remains may bring disappointment, for time and events have taken their toll. And so the visitor must be jolted out of any preconceived notions by a powerful initial impression. All flights of fancy will be dispelled by the sheer beauty of the sweeping vista from the panoramic terrace at the top of the hill, taking in the bay and the twin-peaked mountain rising above it, a lake fringed with hills on the horizon and, down below, the surrounding plain. These are the salient features of the majestic setting on which history has left its imprint. For Carthage owed its existence and prosperity to its natural assets and to its skill in making the most of them.

Photo by courtesy of the author

The panoramic view from the Byrsa terrace.

Act 2: a tale of two cities

The heart of its history is the summit of Byrsa Hill, dominating the surrounding landscape. This is the Upper City, where some vestiges of its ancient splendour still remain. For Byrsa was a pinnacle – not just topographically but historically – of both Punic and Roman civilization. Today, few visible monuments testify to its former grandeur: no temples, palaces or citadels. Just a few walls and pavement floors. But for the discerning observer, there are many undeniable traces of the great buildings of the Roman forum. The terrace from which the visitor now views the surroundings is just one of the elements of the very extensive architectural complex covering the whole area around the summit, with baths, a theatre, an amphitheatre, a circus-hippodrome, an odeum, villas, temples and basilicas spread over the whole town, many of them still buried beneath the earth, covered by land which is now either built up or cultivated. And this is only Roman Carthage, whereas the earlier Punic city is buried even deeper. Thus, two great and powerful cities were built on the same site, on this hill and around it, on this peninsula at the junction of a bay and a plain.

The first grew up principally between the shore and the hill and served its function as a commercial and trading centre, with a port on the coast, a residential area on the slopes of Byrsa Hill and burial grounds stretching across the other hill-tops.

The second, planned from the outset, radiated from a centre on the summit of Byrsa Hill and was designed according to a regular orthogonal plan based on two main perpendicular roads, Decumanus Maximus and Cardo Maximus, with the centre set aside for religious, political and civic buildings, the coast for commerce, the hill-tops for temples, the hill-slopes for housing and the surrounding area for the great entertainment edifices. Beyond this area were situated necropolises and later monuments.

What remains of all that today? Really very little. For Punic Carthage was destroyed by Scipio at the end of the Third Punic War, and Roman Carthage which came after it was demolished over the centuries, pillaged for its building materials. The early twentieth century again saw the beginnings of urban development, and there were virtually no monuments left standing, only piles of ruins and fields under cultivation. It was the interest and passion shown by modern archaeologists and historians that staved off this new invasion of the area as they began to excavate the site, bringing to light the remains of the ancient settlements and little by little reconstructing the face of the city and its historical profile.

In the south-eastern corner, along the coast but set back from the shore-line, the contours of the two harbours can be clearly seen, while in the south-western corner, the vague outline of the circus-hippodrome can be made out. To the west lies the amphitheatre, surrounded by a pine wood, and opposite are the great water cisterns of La Malga.

Other buildings that can be taken in at a sweeping glance are the columned building, the theatre, the odeum and the patrician villas, and finally the great Antonine

baths on the coast. Other monuments, such as the basilicas of Damous El Karita, Majorum and St Cyprian, lie beyond.

These are the largest and most clearly visible monuments. All of them except the harbours date from Roman times. There are other lesser monuments, and others still, smaller and buried deeper, which go back to the Punic period. Some have been excavated thanks to the perspicacity of archaeologists, a notable example being the Tophet, which was the sanctuary of Tanit and Ba'al Hammon, with its votive stelae, and funerary urns and even some dwellings, a temple of remarkable architectural design, and above all the burial grounds stretching from east to west, with their graves and especially the deeply dug burial vaults, which contained, along with the mortal remains in the sarcophagi, an abundant variety of funerary objects. These objects have, of course, been placed in museums, mainly the Museum of Carthage. Similarly, numerous objects from the Roman period – decorative architectural features, statues, mosaic pavings, epigraphic inscriptions and small objects which have survived because they were made of such durable materials as stone, marble, pottery, ceramic, metal, ivory and bone – could not be left exposed in the sites in which they were found, and were removed and sometimes chipped away from their original setting to be preserved in museums, particularly in the Bardo and in the Pères Blancs Museum in the theological college.

On closer scrutiny, visitors who have just taken in the view will in fact realize that the platform upon which they stand is not a natural platform but the reconstructed ground plan of a great monument, though nearly all its constituent walls, columns and architectural features have disappeared; all, that is, but for the mortar on the ground which still bears the imprint of the torn-up marble slabs. This great hall, which measured more than 70 x 30 metres and stood along the Cardo Maximus, was part of a vast urban complex built on the summit of the hill according to an orthogonal plan which has been reconstructed from the

Photo by courtesy of the author

The remains of the Punic quarter.

remaining vestiges. This was of course the forum, consisting of the civil basilicas on the eastern side, opposite the capitoline temple to the west and, between the two, the forum square flanked by colonnades.

The building from which the visitor views the site would have been the library and belonged to a second area occupied in the centre by a great temple dedicated to the imperial cult. Architecturally, this whole monumental ensemble made the Upper City one of the most magnificent in the Roman Empire. To make space for it, the Romans undertook a massive earth-moving operation to construct an immense platform buttressed by a vast retaining wall with supporting vaults all around the hill.

These earthworks were in fact what covered over the remains of the earlier Punic city. A whole residential quarter dating from the end of the third to the middle of the second century, that is, the time of Hannibal, has been discovered at the south-eastern corner of the Roman platform, buried under the tons of earth tipped on the hillside to build up a base for the forum. The discovery of these remains pre-dating the Roman period, revealing for the first time a hitherto unknown aspect of the Punic city, is of exceptional significance for an understanding of Carthaginian civilization.

Continuing the walk, after a panoramic view of the site, visitors will discover at their feet a whole section of Punic housing built on the original hillside: a residential quarter laid out on a regular grid system, with cisterns, terracotta mosaics, paving and stuccoed walls. Further on, they will see an even older level of artisanal occupation dating from the fourth century, and burial vaults going back to the seventh and sixth centuries B.C. A special room has been set aside in the museum for discoveries from this unique site.

The time has now come to enter the Museum of Carthage and appreciate its exceptional significance as a site museum.

Act 3: a museum full of mystery

The Museum of Carthage is, of course, an archaeological museum of ancient objects that have been saved from destruction, often found by chance, and carefully, attentively and intelligently collected, analysed and interpreted. They are displayed in such a way as to be accessible to the public and are accompanied by presentations and explanations intended to help visitors to see and understand, to attract their interest and awaken their curiosity. This museological programme has had to be handled with particular care as the museum stands on the actual site where the Carthaginian civilization to which it is devoted lived and developed. It is therefore a unique place and one which, for all the excavations and research, still remains full of mystery. But what has survived and what has been found alone justifies the museum's existence.

The museological approach is not systematic but successive and progressive, beginning with a general introduction or retrospective approach and then elaborating on a period or theme, so that the visitor is progressively taken from one stage to another, with each period or theme linked to and complementing the others.

This general design was dictated by several constraints, not the least of which was the nature and variety of the collections. The objects on display are made of hard and durable materials such as marble, stone, pottery and metal, which have survived the ravages of time, to the exclusion of fragile or perishable materials such as leather, fabric and papyrus; in addition,

the mosaics, sculptures, inscriptions, decorative architectural features and small metal and ceramic objects found on the site of Carthage are by no means all in the Carthage Museum. Some are in the Bardo Museum, notably those discovered during the official excavations at the time of the Protectorate.

The second problem concerned the museum buildings themselves as they were not designed for their present use. Originally they housed the monastery built by Cardinal Lavigerie to meet the needs of the Catholic monastic order of the Pères Blancs, and it was here that a small museum containing a collection of objects excavated by the Pères Blancs was set up. The museum took over the old disused buildings, renovating them and adapting them to their new function.

The museological programme thus had to be devised to accommodate these two constraints, the collections and the buildings. The simplicity of the plan and spatial arrangement has been maintained, for reasons of both economic necessity and efficiency. The exhibition is designed to be instructive and illustrative, and the visitor follows an itinerary in which the items on display are methodically presented in two distinct periods: Punic and Roman. Particularly representative of the former period are the funerary or votive stelae with their decorative patterns, while those with inscriptions belong to the later period. In addition to the sarcophagi and ossuaries, these sites also yielded an abundance of funerary objects, consisting of jewellery, amulets, wine vessels, bronze mirrors, glassware and a wide variety of terracotta objects – masks, statuettes, lamps and quantities of ceramic vases, some of the everyday variety and others of more refined quality, many of them imported from other parts of the Mediterranean.

The Roman period is represented mainly by mosaics that originally paved the floors of private, public and Christian buildings. Then come the inscriptions – mostly funerary as far as the Roman and Christian periods are concerned, and rarely monumental. There are also sculptures in low relief and in the round, some of them from private homes but most from official buildings, and architectural elements (columns, capitals and fragments of cornices). The most remarkable statues and mosaics are to be found in the Bardo Museum.

The Arab-Islamic period is mainly represented by glazed ceramics from the eleventh to fourteenth centuries and some funerary stelae.

On entering the hall of the museum, visitors will find the necessary general information to enable them to find their bearings and choose an itinerary: a large map of the site, with various photographs of the monuments open to the public, and the ground plan of the museum. The visit begins on the first floor, preferably in the south gallery devoted to the Punic period, which can be reached by crossing part of the mosaic gallery. Here there is a panel describing the chronology of the history of Punic Carthage, a map of the Mediterranean occupying an entire wall and showing the position of Carthage, and panels showing the progress of the Roman-Carthaginian war which ended in the city's destruction.

This information serves as an introduction and background to the objects displayed in several showcases, each of which covers a specific period. Together, they provide an illustrated condensed version of the history of Punic Carthage which began in 814 and ended in 146 B.C. Further information is given in the form of documents, photographs and scale models, including a reconstructed cross-section of the Tophet.

After this first contact with Punic Carthage, the visitor proceeds to the general presentation hall which runs the whole length of the central building, and is fronted by a high gallery which looks out onto the peninsula coastline.

'A long history of grandeur, conflict and decline'

The room is divided into four chronological sections: Phoenician-Punic, Roman-African, Palaeo-Christian, Arab-Islamic. A lectern for each period gives the essential details: chronology, map, topographical plan – all in three languages. The journey on which the visitor is now embarking is one of allusions and reminiscences, a subtle interplay between the objects perceived in the showcases and the glimpses of light and greenery through the windows, like a constant pendulum movement swinging between the echo of history and the mirage of the landscape – a long history of grandeur, conflict and decline captured for a fleeting instant in the shafts of light from the surrounding site.

This room leads into the adjacent mosaic gallery and on to a room, symmetrical with the first Punic room, devoted entirely to amphorae. Fifty specimens of terracotta amphorae in various shapes and sizes show the abiding significance of a utensil that proved its use through the ages. Coming from different regions at different times, they give an idea of the navigation routes and trade flows even though the products they contained have disappeared, and offer a fine anthology of the development of design for daily use. In one corner there is a description of the whole history of barrel vaulting, an architectural feature that spread across the world.

Photo by courtesy of the author

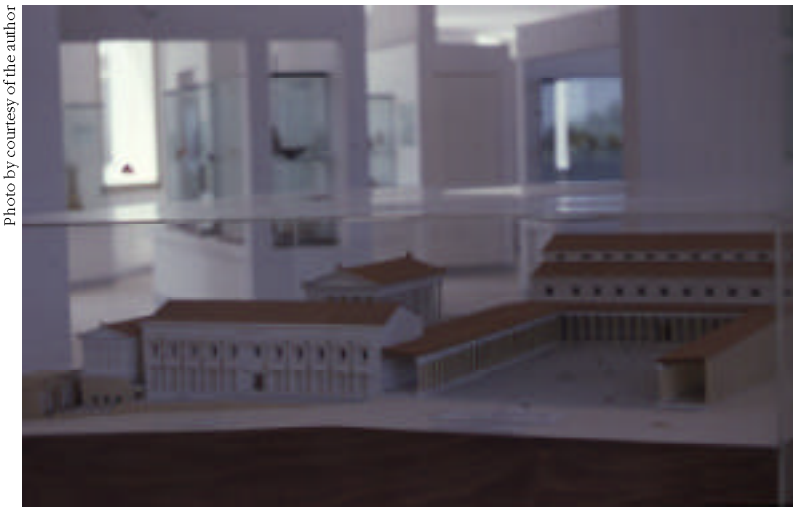
The façade of the museum; the building was formerly part of the monastic order of the Pères Blancs.

From this room, confined narrowly to a specific theme, the visitor enters the Byrsa gallery, which is given over to a presentation of the objects and other artefacts gathered over more than a century on the Byrsa Hill, in the light of recent excavations and as a complement to what the visitor has already discovered in situ, during Act 2 of the tour.

First, Phoenician/Punic Byrsa is portrayed in five sequences that have been reconstructed from the discovery of the residential quarter dating from third to second centuries B.C, namely imports, locally produced goods, buildings, religious practices and, finally, the fall and destruction of the city. The Roman period is then evoked, centring around a scale model of the forum, with its High Empire architectural decoration. A fresco on the far wall shows the massive scale of the works undertaken for the construction of the esplanade and buildings. Around this scale model, fragments of architecture, sculpture, inscriptions and other features are displayed to illustrate the reconstruction of the model.

A staircase at the far end of this wing leads to an equally large room with an archway across the end, on either side of which are

Photo by courtesy of the author



A view of the interior of the museum showing the Roman Byrsa room.

the two great bas-reliefs of 'Victory' and 'Abundance', which were the principal virtues of the Emperor and the Empire. A small adjacent room contains showcases with early Carthaginian artefacts which were excavated from the deepest strata of the site on the Decumanus Maximus, and which serve as a complement to the in situ visit. These small objects are tangible evidence of the far-off origins of Carthage – modest and fragile witnesses to the origins of a town destined to become a metropolis.

The next room, the Punic sarcophagus room, contains a whole collection of sarcophagi, with the masterpieces, the Priest and Priestess, displayed in the centre, in a sunken recess. These lovely statues carved in high relief from white marble on the lids of the sarcophagi represent the two figures in an attitude of worship.

Among the wider variety of sculptures in the Roman sculpture room are some important pieces, including three statuettes from Demech – Demeter, Persephone and a charioteer – as well as several busts of deities and emperors.

On the other side of the entrance hall, a room dedicated to the Palaeo-Christian period contains mosaics, especially the 'Lady of Carthage', architectural fragments, bas-reliefs, ceramics and religious objects from the basilicas and necropolises, together with detailed explanations, a reconstruction of the Carthage basilica, and plans of the excavations.

Parallel to the sculpture room, a separate gallery has an exhibition entitled Science and Archaeology: A meeting in Carthage, illustrating the conservation work and treatment and preservation methods used to safeguard archaeological objects. This concludes the museum visit.

Visitors emerge from this journey through space and time and are guided along a short cut, in the shade of a portico and an avenue of trees, from which they can have a last look round at the landscape which now comes to life with all the images they have absorbed. It is no longer just a landscape, but a stage in which a long story has been played out, and the visitor is no longer the same person, for the past has

come alive and memory has been regained. Obviously, such a metamorphosis comes about more by exercising the intellect than by staging some son et lumière show. This museological presentation in three acts ending in a rapid unravelling of the plot, as in a play, naturally calls for the active participation of the visitor.

Behind the scenes

A site museum is more than a collection of showcases with objects arranged according to a museological script for the proposed visit. The exhibition part which is open to the public is only the tip of the iceberg; the hidden part is made up of the quantity of objects stored in the reserves. The Carthage Museum collections consist of objects characteristic of different historical periods. The mosaics, architectural fragments and sculpture are nearly all Roman, the funerary stelae and inscriptions are both Punic and Roman for the epitaphs and ex-votos, and the sarcophagi come from all periods. Most of the ceramic objects found in tombs – vases, figurines, lamps, masks – are Punic, some of them imported. There are some from the Roman period, but few of them, apart from the lamps, are intact. Almost all the jewellery is Punic, as are the amulets, which came from Egypt or were local imitations, glassware and bronze mirrors.

Finds from early excavations on the site have been sorted, grouped, stocked and inventoried. This is essential for scientific research and the administration of the collections. In addition to the objects kept in the museum, there are those still buried in the depths of the earth, which will come to light through methodical excavations, or sometimes pure chance, and will add to the wealth of the existing collections.

The Carthage Museum is the natural recipient for objects from the surrounding archaeological site and it is rich in the promise of treasures yet to be yielded up by future excavations. For the museum is also dedicated to research: this is in fact its main purpose. The museological approach for a museum on an archaeological site is the end-product of a scientific process. The objects found, preserved and displayed are above all of documentary value and this is something that only scientific method can elucidate and enhance. The function of an archaeological site museum is not to exhibit objects for their aesthetic quality alone, but rather to illustrate a civilization, and in this respect the most humble of objects or even fragments are just as meaningful as works of great beauty. Thus, even if an exhibition is permanent, it must not be static but must evolve, change and be transformed with the progress of research and museological techniques. It must be in tune with, if not ahead of, the times. Organically linked to the site it stands upon, nurtured by the archaeological excavations, the Museum of Carthage is a living organism sustained by the new discoveries brought in, by the incorporation of new objects into the old collections and by abundant research which constantly reopens the debate. It is a place of permanence and gestation, and consequently a place for reflection. This is what explains its versatility.

True to its international vocation, the Museum of Carthage is open to researchers and specialists and many monographs have been written on its treasures. Its archaeological library is based on three distinct collections: that of the Pères Blancs, built up by Fr Ferron; that of the former French Archaeological Cultural Mission, known as the Cintas library; and the collection donated by Canon Saumagne. Together these constitute a collection of specialized

books and periodicals on Antiquity. Since the beginning of the International Campaign, this has been supplemented by a Documentation Centre which collects archaeological data from all the research work and issues an annual newsletter, called the CEDAC Bulletin, now in its sixteenth issue. In order to strengthen the impact of the Documentation Centre launched by UNESCO twenty-five years ago, the museum has plans to set up a UNESCO information area to provide data about the site, and is considering the creation of an Internet site for wider public outreach.

A modest but functional workshop-laboratory for the restoration and preservation of archaeological objects has been set up with a grant from the University of Toronto and Canadian bilateral funds. On the ground floor is a special gallery explaining the methods used.

The museum is particularly keen to appeal to young visitors, and has consequently produced and published a variety of general information materials, such as postcards, leaflets, information packs and guides, to be distributed free of charge. It will soon offer an introductory and creative workshop for young children. A multivisual programme created several years ago, with the collaboration of UNESCO, tells the story of Carthage through a wall display of images.

The Museum of Carthage, situated in the heart of a renowned site, is clearly an exceptional tool – as a collection centre for all the material documenting the site, and as an information centre and a showcase of a great civilization. In addition to these two basic functions, the museum's location and action will place it in the forefront of activities connected with the future park of Carthage-Sidi Bou Saïd.

For it must be remembered that the Carthage site is on both the UNESCO World Heritage List and the list of 100 Mediterranean sites. It is one of the rare sites to meet the six criteria for inclusion in these lists and has received a good deal of financial support. In addition to that of UNESCO, there have been generous contributions from Canada, the Getty Foundation, France and Germany.

The museum bears witness to the Tunisian Government's will to reassert the value of the national heritage. It is here that Tunisians can learn about their history and their glorious past. ■

Archaeology and ethnic politics: the discovery of Arkaim

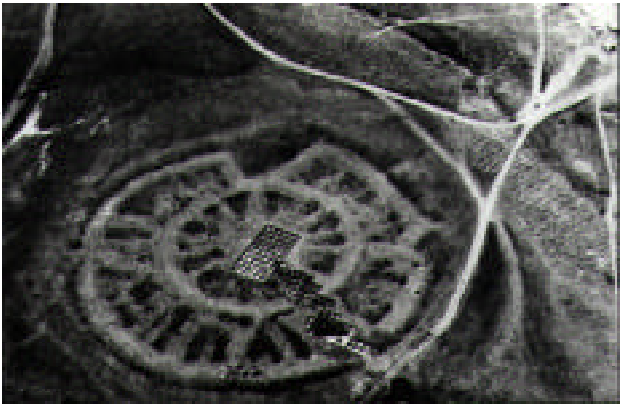
V. A. Shnirelman

The discovery in the southern Urals of a perfectly conserved city some 3,600 years old was not merely a significant archaeological event. As V. A. Shnirelman explains, it set off a chain reaction of far-fetched speculation and extreme ethnic nationalism which sought to exploit the find for purely political purposes. The author is a member of the Institute of Ethnology and Anthropology of the Russian Academy of Sciences.

Nothing unusual was foreseen for 20 June 1987. During the summer of that year a team of archaeologists from Chelyabinsk State University headed by Gennady B. Zdanovich was to examine archaeological sites in the Bolshaya Karaganskaya river valley, where the construction of a reservoir had begun the previous autumn. The valley lies in the south of Chelyabinsk oblast (Southern Urals) at the confluence of the Bolshaya Karaganka and Utyaganka rivers. The archaeological sites already known in the locality had yielded little and had not aroused any great hopes. The summer digging season appeared sufficient to provide a general outline of cultural evolution in a valley that was to be submerged in the spring of 1988.

The inquisitiveness of two youths was, however, about to upset the plans of the archaeologists and the developers. On 20 June, Aleksandr Voronkov and Aleksandr Ezril, two schoolboys working for the expedition, informed the archaeologists about some curious embankments that they had found in the steppe. To the experienced eye it was apparent that something most unusual had been unearthed. That same evening Zdanovich informed the members of the expedition about an outstanding discovery, and the schoolboys, who had been the first to spot it, were rewarded with a tin of condensed milk.

What had the archaeologists seen in the steppe and what had so astonished them? During the 1970s and 1980s Soviet specialists had been engaged in bitter disputes concerning the whereabouts of the original homeland of the Indo-Europeans, the nature and development of their ancient culture, and the migratory paths of individual groups. The impetus for these disputes had been provided by two linguists, Vyacheslav V. Ivanov and Tomaz V. Gamkrelidze, who were of the opinion that the Indo-Europeans had come from Asia Minor. They were opposed by the eminent historian of the ancient East Igor M. Dyakonov, who located the early Indo-Europeans in the Balkans. Many Soviet archaeologists were convinced that the main area of settlement of the early Indo-Europeans had been the Eurasian steppes and wooded steppes where the cultures



Aerial view of Arkaim.

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that developed had been mainly those of the cattle-herding population that had given rise to the remarkable cultures of the Scythian world.

Linguistically, the Scythians were a Persian people, and the languages spoken by the Persian peoples are closely akin to Indo-European languages, the best known of which is Sanskrit, the language of Vedic literature, the scriptures of the Indo-Aryans. At one time the Persian and Indo-Aryan languages had constituted a linguistic whole. Archaeologists connect the Indo-Aryans with the steppe cultures of the second millennium B.C. What is in dispute is when and where the Indo-Aryans emerged as a distinct group and how they came to be in India. Some authors locate their original homeland in the southern Urals, while others seek it along the northern shores of the Black Sea.

This is why the discovery of Arkaim caused such excitement among archaeologists. Arkaim is a circular fortified settlement, roughly 150 metres in diameter, dating back to the seventeenth and sixteenth centuries B.C. It is surrounded by two concentric defensive ramparts of clay and adobe blocks on a log frame. Within the circle close to the ramparts are some sixty semi-dugout dwellings with hearths, cellars, wells and metallurgical furnaces. The dwellings open on to an inner circular street with wood-block paving. A drainage gutter with water-collecting pits was constructed along it and a rectangular 'square' graced the centre of the settlement. Entrance to the settlement was via four intricately constructed passages through which it would be difficult for enemies to gain access. All the evidence suggests that the settlement had been built to a common plan, which is indicative of a society with a developed social structure and local leaders with high authority. This impression is further strengthened by the fact that more than twenty circular and rectangular settlement sites dating from the eighteenth to sixteenth centuries B.C. have now been found in the southern Urals and northern Kazakhstan. The area, which archaeologists have dubbed 'the land of fortified towns', covers an area of 400 x 150 km.

The answer to the question of whether there was anything unusual about the discovery of Arkaim is both affirmative and negative. In the late 1960s and early 1970s archaeologists had begun to find remains in this area of fortifications and rich burial grounds dating from the second quarter of the second millennium B.C. The best-known achievement of the seventies was the excavation of the Sintashta burial ground, where a rich cache, including remains of a chariot and horse trappings, was discovered. It was already apparent at that time that the southern Urals were a most important region in the formation of a complex society that had acquired war chariots – a marvel of military technology at the time. Arkaim provided confirmation of that assumption and imparted a new perspective to it, by virtue of being the first well-preserved fortified settlement to be studied in some detail by a team on the spot. The fact that it was Arkaim that was investigated in this way was, of course, the result of a chance combination of circumstances. It is a fact that we now know of larger fortified settlements of the same type with far more impressive stone architecture.

The battle for Arkaim

Arkaim acquired special renown from the very dramatic struggle to rescue and preserve it. The reservoir was being built by what was at the time the all-powerful Ministry of Water Resources of the USSR. As initially conceived, the work was

Photo by courtesy of the author

The archaeological experimental area with some reconstructed features such as an oven and walls.

scheduled for completion in 1989, but the builders decided to force the pace and complete the project a year ahead of schedule. The whole valley, along with the unique site, would therefore have been submerged in the spring of 1988. That had to be prevented by all possible means. The archaeologists did everything they could to mobilize opinion for the saving of Arkaim. Academicians, leading scholars and public figures spoke out in its defence.

Although the archaeologists were initially asking no more than that the building work be halted until 1990, there was soon talk of establishing a protected area or even an archaeological museum site in the Bolshaya Karaganskaya valley. In March 1989, following a lively discussion, to which specialists and representatives of public groups contributed, the Praesidium of the Urals Branch of the Academy of Sciences of the USSR issued a decree establishing a special scientific laboratory to study the proto-urban civilization in Chelyabinsk oblast and requested the Council of Ministers of the Russian Federation to establish a protected historical area.

The arguments put forward by the scholars were so convincing and public opinion was so vocal that members of the local and provincial (oblast) authorities also came to the defence of Arkaim. At the same time the Ministry of Water Resources rapidly lost authority as the democratic process spread throughout the country, the Soviet Union moved towards collapse at an alarming speed, and regionalism began to develop in the Russian Federation. It was riding upon that wave that the Council of Ministers of the Russian Federation decided in April 1991 to halt the construction of the reservoir and to establish the 'Arkaim historical and geographical museum protected site'. In the following years work was put in hand for the creation of a scientific campus, the provision of tourist facilities and the setting up of a Museum of Natural History and Man. It is proposed to restore the natural landscape of the valley, which has been greatly distorted by agriculture. At the same time, the parlous state of the Russian economy means that the museum site constantly faces financial problems. Its directors quite often have to accept charitable donations, especially from astrologers, which is bound to put the archaeologists in an equivocal position.

In the opinion of many specialists, Arkaim and similar sites could have been established by the earliest Indo-Iranians long before their separation and their migrations along the Eurasian steppe corridor and the southward movement into Persia and India. Some scholars draw parallels between circular fortified settlements of the type of Arkaim and the city of the legendary King Yima, reproducing the model of the universe described in the Avesta, the holy book of the ancient Persians.

All these hypotheses were actively employed by the scholars in their struggle to save Arkaim. In seeking to make their arguments more impressive, they tried to play on the imagination of officials by having recourse to some very risky assumptions. Arkaim was presented as one of the oldest settlements in the country, as

the 'centre of a form of statehood of nomarchical type', as a temple-observatory comparable to Stonehenge, and was even referred to as the native land of the Persian prophet Zoroaster. Officials and tourists visiting Arkaim could see a placard with the inscription 'Zarathustra was born here'. Furthermore, Arkaim was included in the list of 'national and spiritual shrines'. In that context, it was sometimes asserted that Arkaim had not been built by Indo-Iranians, but by Indo-Aryans, who were allegedly closely related to the Slavs and could serve as a model for contemporary mankind of harmonious interrelationships between culture and the natural environment. The 'land of fortified towns' was referred to unequivocally on another occasion as 'the land of the ancient Aryans' and endowed with some special spirituality. The term 'Aryans' began to be used arbitrarily in a wider sense as a synonym for Indo-Persians.

A stone figurine from the southern Urals.

Arkaim and the 'Russian idea'

As things turned out, the discovery of Arkaim and the intensive archaeological investigation of the 'land of fortified towns' coincided with the rapid collapse of the Soviet Union. The USSR, the successor to the Russian Empire, had always been looked upon as having been created by the efforts of Russians over the centuries, with the result that until fairly recently Russians felt themselves to be at home anywhere within it. The situation had begun to change in the ten to twenty years before the collapse of the USSR. The growth of local ethnic nationalism in the border areas made Russians feel for the first time as if they were foreigners, and many of them began to return to the central regions of Russia. Given that the formation of the vast Russian Empire had taken place over the centuries through wars of conquest, acquisition of territory and the rapid expansion of the Russians into regions inhabited by groups having different cultures and speaking other languages, it is not surprising that with the growth of ethnic nationalism the legitimacy of the presence of Russians in various parts of the country should raise questions for the indigenous non-Russian population and the Russians themselves.

Under these conditions Russian ethnic nationalists began a feverish search for historical justification for Russian domination over the entire territory of the former

Empire. The history of the recent and medieval periods, replete with campaigns of conquest, was not well suited to that purpose. The prehistoric past offered more tempting prospects for the propounding of arbitrary constructs as promising theories. Russian ethnic nationalists reopened on their own account the long-forgotten and rejected reasoning of the 'Slavic school of history' that had vainly sought to identify the Slavs with the ancient nomadic inhabitants of the steppe who spoke Persian languages (Scythians, Sakians and Sarmatians). Moreover, having armed themselves with modern archaeological data, they began to insist that the 'ancestors of the Slavs' had already conquered the European steppe zone back in the Bronze Age. They increasingly identified these ancestors with the 'Aryans', arbitrarily including in that category those groups of Indo-Europeans whom they found most acceptable as forebears. In this way the aggressive policy of the Russian Empire was represented by them in a different light as the return of the Russians to their hereditary lands.

In that context the discovery of Arkaim was most opportune. Zdanovich himself did not refrain from acknowledging this trend. 'We Slavs,' he wrote, 'consider ourselves to be new arrivals, but that is untrue. Indo-Europeans and Indo-Iranians had been living here [in the southern Urals] since the Stone Age and had been incorporated in the Kazakhs, Bashkirs and Slavs, such is the common thread linking us all.' Although archaeologists themselves seek the cultural roots of Arkaim partly in the middle Volga region and partly in southern Siberia, the Russian ultranationalists have opinions of their own on the matter. From 1991 onwards, when it was acutely felt that the territory of the Russian state was contracting abruptly and shifting northwards, the 'hyperboreal idea', according to which the original homeland of the 'white people' was to be found in the Arctic region, came into vogue among them. Climatic cooling and the advance of the ice sheets had obliged those 'Aryans' to seek a new refuge.

In their southward advance they chose the southern Urals as the place where they would settle. It is there that the Russian ultranationalists locate the 'second homeland of the Aryans', from which they subsequently spread out over the vast expanses of Eurasia to the Carpathians in the west and China in the east. Those who put forward these views regard the southern Urals as the source of the Vedic faiths and consider that the area was practically the oldest example of statehood in the world, the capital of which was in holy Arkaim. Some of them refer to this statehood as 'Slavic'. These are breathtaking fantasies that entrance the spirit and, as is acknowledged by one of their disciples, Arkaim gives one 'the feeling of embodying all past millennia, destinies and decisions, pains and triumphs over difficulties. . . . There is a realization of being the heir to and the continuer of some great undertaking that turns out to have been alive within you for a long time. . . .'

The feelings that Arkaim arouses in Russian ultranationalists are once again reaching passionate heights. As one of them declares, 'Ancient Russia [Rus] existed, there was a written and spoken language, there were its spiritual values and Arkaim is the proof of all that.' Another individual interprets Arkaim as 'a symbol of Russian glory' and his comment to that effect is published with satisfaction by the Russian ultranationalist newspapers Russky Vostok [The Russian East] (Irkutsk) and Za russkoe delo [For the Russian Cause] (St Petersburg). This idea is not without a touch of racism, and it is called upon to inculcate openly

xenophobic attitudes. It does, after all, invite Russians to remember their racial roots and 'Aryan origin', declares Arkaim to be 'the source of the proto-Slavic group of the Aryan people' and at the same time laments the dependence of the white race on some kind of alien culture stemming from 'the prophet Moses'. The plans for the inundation of Arkaim, that were successfully resisted with great difficulty by 'national patriotic forces', are instanced as an example of a blasphemous attitude to the heritage of the Aryan ancestors. The conclusion drawn is the declaration by Russian ultranationalists that 'until such time as national patriotic forces come to power, it will be impossible to repulse those who insult and plunder Russia'.

New fantasies, old assumptions

This idea suffers from megalomania and as time passes is accumulating new fantasies and the most strange assumptions. Those who hold it have no difficulty increasing the age of Arkaim by a millennium or more, making it 'older than the Egyptian pyramids' and asserting at the same time that iron was smelted there. Arkaim is also identified with Asgard, the secret homeland of the ancient Germanic god Odin. The sources of this myth are once again sought among the ancestors of the Slavs. Nor is any greater difficulty experienced in accusing 'Soviet freemasons' of having had barbaric plans for the inundation of Arkaim and in calling upon 'Aryans' to return to the 'Indo-European (Vedic) main line of development' in the name of the restoration of the 'Spiritual Superpower' (within the 1975 boundaries of the USSR).

A further 'theory' equally arbitrarily makes sites of the type of Arkaim and Sintashta a thousand years younger so as to declare the southern Urals to be the original homeland of the prophet Zoroaster, where he produced the holy book, the Avesta, before taking the light of the new teaching far to the south. The legendary King Yima is credited with the building of Arkaim, 'the city of the Aryan hierarchy and racial purity', and the Sintashta burial ground is said to be the place where 'the great Old Russian priest-warrior' Zoroaster is buried.

The swastika is proclaimed as the symbol of Russian Aryanism. It grieves me to have to write that archaeologists provided the food that nourished this and many other 'Aryan ideas' of the Russian ultranationalists by their attempts to rehabilitate the swastika, in which they saw analogies both in traditional Russian rural culture and in the materials from Arkaim.

The Aryan theory was also to the liking of Russian astrologers, the best known of whom, Pavel and Tamara Globa, adherents of Zoroastrianism and 'Aryan astrology', had their own view on the importance of Arkaim. Pavel Globa stubbornly insisted that the ancient Persian priests had a special interest in the territory of the future Russia, that the prophet Zoroaster was born in the Volga-Urals region and that traces of the long-forgotten earliest civilization were to be sought in Russia.

Tamara Globa visited Arkaim in 1991 at the time of the summer solstice. While there she announced that the memory of it had been preserved for centuries by the Indian Magi and that its discovery had been foretold by the medieval astrologer Paracelsus. In later speeches she even let it be understood that the discovery of Arkaim was due to her. She had no doubt that it was the city temple built by the legendary King Yima, ruler of the Aryans in the 'Golden Age'. She proclaimed the Urals to be the centre of the world and the 'land of fortified towns' to be

the middle of the earth. She saw the fact that Arkaim, an 'island of the past', had seemingly surfaced out of nothingness as a pledge that 'the Urals will gather together the Aryans' and 'will become the place of their spiritual concentration' after millennia of 'the powers of darkness'. Russia, being in the constellation of Aquarius, had a great future and 'will rule the world'. Tamara Globa stigmatizes as guilty of 'trembling when confronted with the future of Russia' all those who have a sceptical attitude towards the 'Aryan idea' and who see in it the birthmark of Nazism. Nor is that all. She tries to vindicate the swastika as well as the 'Aryans', describing it as 'the symbol of the connection of Rus with the Aryan race', adducing as proof the depictions of the swastika sometimes found on clay pots from Arkaim and proclaiming that the swastika was embodied in the very design of this fortified town.

There are organizations of mystics and practitioners of the occult arts in Chelyabinsk itself. They observe annual holidays and hold festivals and gatherings of their followers and worshippers who come from all over the country and from abroad. These activities usually take place in the spring and summer, and the programme often includes a visit to Arkaim.

Ever since archaeologists declared Arkaim to be a legacy of sun-worshipping Aryans, an atmosphere of secrecy has been built up around it and it has been recognized as a place where there is a build-up of mystic forces. There has been an endless influx of tourists, prominent among whom have been followers of the teaching of Rereck, [1] astrologers, practitioners of the occult, neo-paganists, followers of Hare Krishna, fire worshippers and simply people eager to be cured of crippling diseases. The most popular festival is the Night of Ivan Kupala, 21/22 June, when there are heathen rituals here, accompanied by dancing and leaping over fires, mass orgies with bathing in the river, meditation and singing. The valley is visited by pregnant women, who believe that the waters of the Karaganka river are at least as beneficial as those of the Ganges. Tourists love to climb the Bald Mountain that rises above the valley and spend hours there 'tapping' energy from outer space.

Arkaim has flared up like a blinding meteor in the murky sky of post-Soviet reality, giving rise to flashes of doubt and of hope in the minds of the inhabitants of Russia. The mirages will disappear with the passage of time, but the riddle of the lost southern Uralian civilization will long continue to excite the imagination of researchers. I should like to believe that the Arkaim museum and protected area will have a long and fruitful life. ■

Note

1. A twentieth-century Russian artist and philosopher and well-known expert in Buddhist and Hindu philosophy – Ed.

Reaching beyond the site: the Great Temple Museum in Mexico City

Eduardo Matos Moctezuma

The Great Temple excavation in the heart of Mexico City was one of the most significant archaeological finds in a country replete with world-famous historical sites. The creation of a museum on the spot was seen as a unique opportunity to develop a variety of innovative programmes to teach and explain this rich cultural vestige to ordinary people both near and far. The author has been co-ordinator of the project since 1978 and is director of the Great Temple Museum. He has written more than seventy-five articles and forty books and has received international recognition for his work: an honoris causa doctorate from the University of Colorado in the United States, the Andres Bello Order of the Republic of Venezuela and the Chevalier des Arts et Lettres of France are a few of his many distinctions.

On 13 August 1521, after a siege lasting for three months, the Aztec cities of Tenochtitlan and Tlatelolco fell into the hands of Hernán Cortés and his indigenous allies, who were enemies of the Aztecs. The twin cities had both been built less than two centuries previously. They had experienced unprecedented development in the meantime. Rivals from the outset, power and control over the triple Alliance between Tenochtitlan, Tacuba and Texcoco were based in Tenochtitlan, while Tlatelolco was famous for its trade expansion into different parts of Mesoamerica. The expansion of Tlatelolco was short-lived. In 1473, it was defeated by the army of Tenochtitlan and came under control of its neighbour city. However, at the time of the Spanish conquest, both cities united their endeavours to confront the Spanish power and the indigenous tributary peoples who had joined forces with the Iberian armies against their oppressors to whom they were obliged to pay tribute: the Aztecs of Tenochtitlan.

The war of conquest was savage. Temples were razed to the ground and destruction spread everywhere. Friar Toribio de Benavente, a Franciscan brother, likened this destruction to the plagues of Egypt. However, Cortés went on to order the construction of a neo-Hispanic city on the same site as ancient Tenochtitlan. Gradually, all traces of the old Aztec city were wiped out and replaced by the Spanish urban plan.

Nearly five centuries have elapsed since those events. Today, Mexico City covers a vast area below which traces of various pre-Hispanic cities and villages still exist. On 21 February 1978, employees of the Electric Light and Power Company were working in the heart of Mexico City when they came across part of a sculpture. The National Institute for Anthropology was called in and the archaeologists found this to be a huge stone sculpture with a diameter of more than 3 metres, representing the Goddess Coyolxauhqui, the lunar deity and sister to the Sun and War God, Huitzilopochtli. This find lay at the origin of the Great Temple Project, for which I am responsible. The purpose of the project was to uncover the principal temple of the Aztecs after five years of archaeological work in the city centre.

One of the programmes resulting from the scientific intervention of the archaeolo-

Photo by courtesy of the author

General view of the Great Temple excavations.

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gists, restorers, biologists, chemists, historians and other specialists, was the creation of a site museum alongside the vestiges of the Great Temple to display the rich archaeological finds made here. The general museum plan was derived from the dual nature of the Great Temple: an edifice with two flights of steps leading to the upper part where the two sanctuaries were situated. One was dedicated to water and agricultural production and watched over by the Rain God, Tlaloc. The other half of the building was consecrated to the God of War, Huitzilopochtli. The museum was accordingly designed in two parts with its main elevation facing west, like that of the Great Temple. The visitor enters a vestibule where a huge model of the Ceremonial Precinct of the Aztec city separates the two wings: war and water, death and life.

Each wing comprises four rooms and on the upper level visitors cross between them by a balcony from which the colossal and magnificent sculpture of the Goddess Coyolxauhqui can be admired. Before entering the museum, the visitor walks past the vestiges of the Great Temple which were unearthed by the archaeologists in five years of strenuous work. The architectonic vestiges are therefore united with the other exhibits in a way which gives the visitor a clear idea of the significance of the very place where the main Aztec edifice once stood.

A museum on a human scale

I have always been well aware of the justification for the existence of great museums. However, I believe that the marvels contained within them, the outcome of human creativity in all ages and all circumstances, can hardly be taken in fully on a single visit to these vast edifices. All the more so as visitors to a different country are often short of time, but still wish to get to know the works of the past and present. The creation of the Great Temple Museum was an opportunity to build an edifice that was adequate for its intended purpose, bearing in mind the fact that it is situated in an archaeological zone in the very heart of the capital and surrounded by colonial-style buildings. The architect, Pedro Ramirez Vazquez, therefore chose the museum design outlined above, on the basis of a structured plan and the bold museographic approach of Miguel Angel Fernandez.

A visit to the ruins and the museum lasts no more than an hour. The Mexican or foreign visitor can therefore also take in other important sites such as the cathedral, Diego Rivera's murals in the National Palace or any of the more than forty other museums and cultural venues in the historic city centre. The content of the Great Temple Museum has a succinct and unified character, with a clearly defined theme. What is more, the museum stands on the very site where the information was gathered. Inaugurated

Photo by courtesy of the author

Sanctuary with skulls in the northern part of the Great Temple with the cathedral in the background.

Photo by courtesy of the author

Human skull with flint knives exhibited in the museum.

on 12 October 1987 by the then President of the Republic, it has since received over 6 million visitors, adults and children, Mexicans and foreigners alike.

Among the different activities proper to any museum, in the Great Temple Museum we gave priority to those who are interested in getting to know this edifice. Several programmes have been put together for the visitors who habitually come here, such as tourists and school groups. We have also made suitable arrangements for people who, for special reasons, have difficulty in making a visit. That is the origin of the programme for the disabled called 'A New Option for Your Senses' in which specially trained museum personnel take charge of visits by groups of blind children and adults. In the museum rooms, replicas of pieces have been specially placed for blind persons to touch, and explanations are given in Braille. Provision is also made for groups of deaf-and-mute visitors. The objects on display are explained in sign language for their benefit. Mentally retarded children also come to the museum.

As can be seen, the programme is specially designed for all kinds of people who visit the museum. However, since its inauguration, we have also decided to create another programme entitled 'The Museum Comes to You'. This second programme has been very well received. A group of our guides and curators present a 'show' with an audio-visual accompaniment, explaining the nature of the museum and Aztec culture. The interesting feature of this programme is that it is intended for sectors of the population who cannot come to the museum in person. We have arranged visits to prisons for men and women in Mexico City, and also to detention centres for young offenders. We have also travelled to various places in the country to present the museum contents. Sometimes, we have had to arrange translation for the benefit of the populations of remote villages where indigenous languages are mainly spoken. In this way, we have succeeded in creating a considerable incentive for these sectors of the population who because of the circumstances in which they are placed, would have difficulty visiting the Great Temple.

I might add that we have also arranged lectures and workshops for detention centres. In these workshops, the detainees make ceramic reproductions of some of the archaeological pieces that they have seen on the slides. Finally, they are given an attendance diploma. Groups of minor offenders have on occasion come to the museum to receive the award for their attendance at the workshops.

We believe that a museum, whatever its content, has an obligation not only to open its doors to an ordinary audience. It must also take a wider interest in sectors of the

population who, for a variety of reasons, are unable to pay personal visits. Prisoners, residents of old people's homes, people living in remote places and others all have a right to learn about their heritage and history. Taking the museum to them is a vital obligation.

At the same time, academic research is continuing and further excavations are in progress in the environs of the Great Temple. The Urban Archaeology Programme (PAU) is responsible for seven blocks of the historical centre of Mexico City, under which the ancient Aztec ceremonial precinct is thought to lie. Architects from the Great Temple monitor every public or private construction project inside this perimeter. One of the most important projects is the consolidation of the cathedral. This edifice had suffered grave structural damage because of the settlement of Mexico City caused by the lowering of groundwater levels. When over thirty wells were opened up below the cathedral in an endeavour to solve the problem of its stability, our excavations brought to light a whole series of vestiges, ranging from buildings to offerings with pieces of wood, ceramics, stone objects, murals, etc.

All these items were put on display at a temporary exhibition which showed the public the rescue work in progress in the environs. Exhibitions of this kind, lasting for three months, gave a good illustration of the work in progress. Finds made by archaeologist colleagues elsewhere in Mexico were also shown.

The exhibition plan includes a programme for the temporary exchange of pieces with other Mexican museums. The idea is to put on display in the Great Temple pieces or groups from provincial museums in order to make them better known. In its turn, the Great Temple has sent an exhibition of some of its pieces on tour to these museums. This scheme gives access to objects which could otherwise be admired only by visiting the museums concerned.

The Great Temple Museum ranks third in terms of the number of visitors, after the Museum of History in Chapultepec Castle and the National Museum of Anthropology. The museum does not have space for its own car park. But a visit is a must because of its location in the very heart of Mexico City, the world's biggest urban area. Here the visitor can admire the modern city, its colonial predecessor and the remains of the ancient Aztec city. ■

Photo by courtesy of the author

Blind children touching a copy of an exhibit.

Archaeological site museums in India: the backbone of cultural education

I. K. Sarma

India has a century-old tradition of local museums specifically created to preserve and display archaeological finds. Backed by a government policy to preserve relics and objects in their natural surroundings, major salvage and rescue operations have brought to light a wealth of cultural treasures that reflect the country's ancient and varied history. Author of more than 200 articles and several books, I. K. Sarma served for many years in the Archaeological Survey of India where he directed the excavation of a number of well-known sites. He retired after having been director in charge of the museums, conservation and antiquities sections, and is now director of the Salar Jung Museum in Hyderabad.

The site museums of India form a distinct class by themselves and differ from other museums such as the district, state and national museums of India, which are urban-oriented, multi-purpose museums with various subjects and related objects from many places. The site museums are specific cultural repositories, mostly of rural India, and are invariably located at important archaeological monuments and sites where they preserve the antiquarian wealth resulting from the excavation, exploration and major conservation works of the site. These objects are appropriately displayed in their natural context and their ecological background is fully retained. So the term 'site museum' connotes both the geographical location and the archaeological content and historical background of the place in its totality.

The Museum of Archaeology at Mathura (formerly the Curzon Museum of Archaeology), founded in 1874, was the first of its kind and contains archaeological relics of the ancient ruins of the city of Mathura. Next in point of time is Bijapur Museum (1892) at Karnataka, which was set up within the Naqqar Khana near the famous Gol Gumbaz Complex.

Museums entirely based on archaeological material and orientation became increasingly recognized after Lord Curzon became Viceroy in 1899. When presenting the Ancient Monuments Preservation Bill, 1904, he spelt out the purpose of what he called 'local museums' in clear terms:

> . . . the custody in collections or museums of rare or interesting objects that have either been torn from their surroundings or whose surroundings have disappeared. Honorary Members will be familiar with the larger museums in the capital cities of India where there are collections not without value, but as a rule surely mutilated, often unidentified and uncatalogued and sometimes abominably arranged. The plan has hitherto been to snatch up any sculptured fragment in province or presidency and send it off to the Provincial Museum. This seemed to me, when I looked into it, to be all wrong. Objects of archaeological interest can best be studied in relation and close proximity to the group and style of buildings to which they belong, presuming that these are of a character and in a locality that will attract visitors. Otherwise if transferred elsewhere, they lose focus, are apt to become meaningless. [1]

In 1936, Markham and Hargreaves merely reiterated the views of Lord Curzon: 'It has been the policy of the Government of India to keep the small and movable antiquities, recovered from the ancient sites, in close association with the remains to which they belong, so that they may be studied amid their natural surroundings and not lose focus by being transported.' [2]

The ground for setting up site museums was thus firmly laid. The remarkable archaeological discoveries made after Sir John Marshall's appointment as Director General of the Archaeological Survey of India (ASI) in 1902 aroused global interest in Indian heritage. Sir John Marshall was indeed a pioneer who accredited himself as the founder of various site museums in quick succession: Sarnath (1904), Agra (1906), Delhi Fort (1909), Khajuraho (1910), Nalanda (1917) and Sanchi (1919), apart from others which are now in Pakistan. In addition, smaller sculpture sheds were raised closer to the sites or monuments and were at the root of the subsequent emergence of site museums in both newly built museum buildings or as part of a nearby monument, with suitable display arrangements as well as security measures.

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Archaeology came to the fore with the advent of Sir Alexander Cunningham, the founder of the Archaeological Survey of India in 1861. Cunningham's indefatigable zeal in the collection and study of archaeological material aroused widespread interest in research in Indian archaeology. Savants like him dug the sites and documented the finds very well. They saved the treasures from misuse and destruction at the hands of the locals. But stripping the sculptures from the sites was certainly an over-enthusiastic scheme and, as Professor R. C. Childers rightly remarked in his introduction to Cunningham's publication of his work at Bharhut (1899), it 'carried with it a certain aroma of vandalism'. [3]

Even after the establishment of site museums by Sir John Marshall, important sculptures from ruined temples at Hemavathy and Danavulapadu were carried away to the Madras Government Museum to open up fresh galleries. Yet another official archaeologist and museum director, after digging a stupa site at Kesanapalli in 1965, stripped all the inscribed architectural and sculptured members and carried them to decorate the portals of an office at Hyderabad. The historical and archaeological background of the site, the association of the sculptures and other antiquities has thus been lost sight of forever and there may be many more such cases in other parts of the country.

Safeguarding the sites

The growth of the site museums during the last 100 years has been slow but steady. Lack of funds and adequate technical and administrative personnel blocked the transformation of sculpture sheds into site museums. Nevertheless, the Government of India, through ASI, has a well-laid-out integrated policy to establish archaeological site museums as repositories of cultural relics in the rural backwaters amidst ancient sites and monumental complexes so as to impart a wholesome educative enjoyment to the villagers of India. A separate Museums Branch was formed in

Photo by courtesy of the author

A transplanted fifth-century megalith from Nagarjunakonda.

Photo by courtesy of the author

An exhibit in the main gallery of the Sarnath Museum in Uttar Pradesh.

1946, with headquarters at the Central Asian Museum, New Delhi. The number of site museums was only nine and in 1947, three of them – Taxila (1918), Mohenjodaro (1925) and Harappa (1926) – became part of Pakistan.

The tenure of A. Ghosh at ASI from 1953 to 1968 witnessed a phenomenal growth in site museums and their number increased to twenty. An unfortunate decision to close the site museum at Kondapur was suggested by a Review Committee in 1965 on the grounds that 'very few people are even likely to visit and the site is not worthy of a site museum'. A. Ghosh gave it a new lease on life and today it stands modernized, though the site remains to be excavated on a large scale.

Due to the rise of large scale hydroelectric irrigation dams such as Nagarjuna Sagar (1954–60) and Srisailam (1976–82), both across the River Krishna in Andhra Pradesh, large valleys abounding in ancient sites and temples were threatened with submergence. Archaeological salvage operations of an unprecedented scale were undertaken at both these places and resulted in the physical removal and transportation of the excavated sites, standing monuments and temples. Some remarkable sculptures, inscriptions and architectural members of great beauty and artistic excellence had to be preserved in safer zones. In the case of Nagarjunakonda, the entire excavated archaeological wealth including major and minor structural units, architectural parts, sculptures and antiquities were salvaged and transplanted over the hill of the same name. The country's first island museum, with open-air exhibits such as transplanted monuments and scale models, thus came into being and the original ecological and historical background was retained. Certain irreplaceable and original architectural members, sculptures and icons were preserved within the galleries of the museum, while true-scale model copies of the icons and inscribed members were placed at the transplanted sites. These are, of course, unique instances.

Photo by courtesy of the author

A stupa railing from the site of Bodhgaya.

Until the 1930s, museums were perceived as being run by and for scholars and all the collections were exhibited. In the site museums, the sorting of objects for display is somewhat different from that in the district, state and national museums. Although objects are sorted on the basis of typology – stone sculptures, coins, epigraphs, pottery, other antiquities – nevertheless the stratigraphical and cultural sequence of the excavated site must not be overlooked. The display should reflect the cultural sequence and contexts of the site, substantiated by large photographs, models and dioramas. While display in the main galleries remains necessarily more attractive than instructive for study purposes, the 'spare collection' is meant for temporary loan or for exchange.

The reserve collections are so arranged as to serve as a true reference library of antiquities. A wide variety of art objects, minor antiquities unearthed on a larger scale from the national resurrection projects in medieval cities such as Hampi, Fatehpur Sikr and Golkonda, find their place in a site museum. They need to be classified and arranged according to the excavated site so that taken together the display of objects and the reserves provide a vivid image of the total cultural history in sequential order.

Preserving the integrity of the site

In the early twentieth century, materials from important excavated sites (Mo henjodaro, etc.) were freely carried away to multipurpose museums at the state or national level. The Nalanda bronzes in the Patna Museum, the rich Pearse collection of gems and coins in Indian museums, relic caskets from various stupas of Andhra in the Madras Government Museum, are but a few examples of such a permanent distribution. Instances of large-scale removal of sculptures and their transportation to museums abroad is also known – the famous Amaravati Sculptures adorning the front galleries of the British Museum are the result of such removal.

When requests for the loan of sculptures and antiquities are received from universities or state governments, ASI considers the merits of the loan with a view to promoting archaeological studies, art appreciation and research.

However, the loan of objects from site museums should not be encouraged, as these are inseparable entities of the site or monument concerned and cannot, therefore, be severed from their contexts. They are to be studied amid their original associations and should not be displaced or exchanged on a long-term basis, even within the country. Moreover, ASI has no system of acquisition of art objects or antiquities to replenish or expand its museums except by further excavations which may or may not yield additional works. Even if considerable numbers of the same or similar objects are unearthed, this is in itself important since large numbers indicate the economy and practices of the people and are thus vital for cultural study. The archaeological site museums means 'a museum to house and exhibit material found in archaeological excavations or other systematic explorations; it does not include a museum of ancient objects of art derived from various sources and different methods'. [4]

In a paper presented at the Committee of Governmental experts on the International Protection of Cultural Property (UNIDROIT Conference, Rome, September 1993), emphasis was placed on the need for retrieval of cultural property to the place of its origin. Objects of outstanding cultural importance and integral to a monument of great artistic and historic merit, even if lawfully removed and taken by a government then in power, should be remitted to the state or site concerned so that its art-historical, architectural and contextual relevance is preserved for humankind. This was well put by Matthew G. Galbraith of London in a letter to the editor of the publication Hindu in which he expressed his anguish over the present status of the world renowned Amaravati stupa: 'Today the remnants of this architectural marvel . . . are scattered, with portions in the Calcutta and Madras museums and in the British Museum, London. Just as a fur coat looks best on its original owner, the animal, individual marble friezes and sculptures are never truly at home in any museum or other setting. . . . Today Amaravati stands forlorn and neglected . . . presenting a brave but limited vision of the stupa's former splendour.' [5] The inscribed architectural members belonging to the Amaravati Maha Chaitya now in the British Museum and the Musée Guimet in France were exported out of the country by the British excavators. These scattered relics do not provide a full picture of the great monument. Vital components and ornamental rail sections, copings and cross-bars in the British Museum are incomplete examples, and similar parts lie scattered at the site museum. All the pieces should be sent to their place of origin so that completeness is ensured, particulary in respect of a monument of world class.

Some top-ranking Indian museologists are now toying with the idea that art objects and antiquities of national importance from the site museums and sculpture sheds should be transferred to the district, state and national museums. They posit that site museums and sculpture sheds are located in areas that are inaccessible to the Indian public and scholars, and do not ensure the safety of the objects against deterioration due to climatic variations, vandalism, thefts and possible replacement.

Photo by courtesy of the author

These observations ignore the fact that the site museums and sculpture sheds are well maintained and protected within their monumental setting, when necessary even with armed guards, and that art objects and antiquities are preserved by proper chemical treatment. Equally important, they form the backbone of the country's cultural education. No monument or site museum is inaccessible in India today and a visit to them generates thrill and joy to rural people as well as visiting scholars. The site museums are non-formal centres of educational entertainment and it is vital that emphasis be placed not on the role of custodians of collections and documentation specialists but on communication and education. In fact, these museums can be interlinked with the educational programmes at the primary and secondary levels, and at a higher level they deserve to be considered as institutions of specialized research. To this end, a small but specific reference library is attached to every site museum in India for use by visitors.

As William Evans Hoyle once remarked, 'The museum makes its appeal to the average mind, just as a good teacher tries to bring up the average to his class.'[6] ■

Notes

1. Lavat Fraser, India Under Curzon and After, pp. 363–4, London, 1911.

2. S. F. Markham and H. Hargreaves, The Museums of India, p. 10,London, 1936.

3. A. Cunningham, The Stupa of Bharhut, p.vii, London, 1879.

4. A. Ghosh, 'A Note on Some Problems of Archaeological Museums', Indian Museum Bulletin (Calcutta),Vol. 1, No. 2, July 1966, pp. 53–4.

5. Letter to the Editor under the title 'Amaravati Stupa', Hindu, 9 December 1995. My elucidation thereon appeared in Hindu, 19 January 1996, and made the point that Indian art, culture and thought were not distorted or destroyed by British scholars; rather, they were preserved, polished and passed on to future generations. This preserving aspect of an alien culture was indeed praiseworthy. It has nothing to do with the imperialistic ambitions of the British Government.

6. William Evans Hoyle, 'Museums: Interesting or Otherwise', Museums Journal (London), Vol. 12, 1913, p. 8.

A scale model of the second-century Amaravati Mahachaitya on display in the museum.

Ename: new technologies perpetuate the past

Dirk Callebaut and John Sunderland

The archaeological site of Ename in Belgium is situated on the old frontier between the Kingdom of France and the German Empire. The site preserves the material world of medieval society, and intensive archaeological and historical research has revealed its exceptional richness. It was therefore decided to develop the site into an archaeological park, which would popularize archaeology, history and conservation with integrity, using an innovative museological approach and developing new presentation techniques. Dirk Callebaut is an archaeologist-historian who specializes in the Middle Ages, and a senior member of the Institute for the Archaeological Heritage of Flanders. His excavations include Petegem (Carolingian royal villa), Ghent (Gravensteen) and Ename, where he is project leader for the development of the archaeological park. John Sunderland is the designer of some of Europe's most popular historical and archaeological interpretive exhibitions and visitor centres, including the Jorvik Viking Centre in York and the White Cliffs Experience in Dover. For the last three years he has been working with the archaeological team at Ename, where he is responsible for the project design, and has recently formed an international company, TimeFrame Solutions, to provide on-site interpretation systems to archaeologists and others working in the field of cultural heritage management.

Project Ename started as an emergency excavation in 1982 and has evolved into a large-scale interdisciplinary investigation. The rich source material allows a thorough study of Ename's past. Its history reveals two key moments. Situated by the River Scheldt – which from A.D. 925 separated the Kingdom of France from the German Empire – Ename played its part in the European theatre from 974 to 1050. During this period, the settlement was the centre of a margravate that helped to defend the borders of the Empire. A fortress was erected, around which a trading settlement developed. Two churches marked the rapid growth of this pre-urban settlement. In 1050, however, the Count of Flanders took possession of Ename, changing the nature of the settlement. To demilitarize the Ottonian site, Boudewijn V founded a Benedictine abbey. Ename, once designated as the most important seat of Lorraine, evolved into a village that prospered in the shadow of the abbey. And it would remain so until 1794, when the French revolutionary regime abolished the monastery.

Extremely important and varied monuments have been preserved, belonging to the early medieval occupational phase as well as to the period of the abbey. They consist of:

- A large (8 hectare) archaeological site, situated in the meadows along the Scheldt, which contains the foundations of the early medieval fortress, the trading settlement (portus) and the Benedictine abbey.

- The St Laurentius church, the only building still standing that dates from the Ottonian period of Ename. With its two choirs, its unmistakably marked sections and original decoration, it occupies an exceptional place among Flemish churches.

- The landscape 'Bos t'Ename' (Ename Wood), characterized by its remarkable historic, aesthetic and scientific value.

Each of these elements is (in its category) notably well preserved, and the same holds true for the historic source material. Because of this, the material relics can be interpreted in their context in a concrete way. Moreover, the lines of approach reach further than the local atmosphere. To give but one example: a particular aspect of medieval history is the springing up and growth of the towns, and Ename offers a splendid opportunity to study the pre-urban phase in that development. The importance of this field of study is heightened by the fact that a short period of occupation (which is exceptionally clearly dated) is dealt with.

The scientific study of Ename's history is intensive and widely differentiated. The Institute for the Archaeological Heritage is responsible for the archaeological site, whereas the Administration for Monuments and Landscapes accounts for the historic-ecological research of Bos t'Ename. Several universities (Amsterdam, Antwerp, Brussels, Ghent, Leiden, Leuven, Liège) give assistance, along with the Royal Institute for the Arts, the Institute for the Preservation of Nature, the Institute for Forestry and Game and the Royal Belgium Institute for Natural Sciences. These combined efforts not only highlighted the exceptional value of the monuments in Ename, but also led to the realization that Ename deserved to be opened up and made known by more than the publication of the results of various study projects.

On the initiative of the historian Jean-Pierre Van Der Meiren, deputy of the province of East-Flanders, it was decided to develop the site into an archaeological

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park. This project focuses on experiencing and 're-living' the monuments and on new techniques of presentation. In other words, interpreting a monument also means interpreting the people whose lives were, to a certain extent, defined by those buildings. Our approach also explores the evolution of the landscape, in which these monuments held such a dominant position.

The two stories that are interwoven with Ename's history are significant for the presentation. On the one hand there is the history of the local community, which essentially differs very little from what happened elsewhere through the ages. On the other hand, there are the seventy-five years when Ename, as a guard post by the Scheldt, suddenly played an important role on the European stage. Ename's local history linked to an – albeit temporary – international presence provides the two points of view from which the presentation of Ename's monuments will be conceived. The development of the archaeological park is being carried out by the Province of East-Flanders, the Institute for the Archaeological Heritage and the town of Oudenaarde.

Telling the whole story

Ename's past is clearly illustrated to the public in three places: the museum in the town centre, the historical wood, Bos t'Ename, and the open-air museum on the bank of the River Scheldt.

In the shadow of the St Laurentius' Church lies a nineteenth century building that was purchased by the East-Flanders Provincial Government to accommodate the museum of the archaeological park, which is being designed under the responsibility of John Sunderland. The museum, which

Photo by courtesy of the authors

View of St Laurentius' church, built around the year 1000, one of the best preserved early-medieval churches in Belgium; the nineteenth-century building in the foreground will house the provincial museum of the archaeological park.

Photo by courtesy of the authors

Right: View of the archaeological foundations of the Benedictine abbey with an inset showing the first TimeFrame™, which is focused on the foundations of the abbey church.

Below: The heritage of Ename consists of an archaeological site with the foundations of an early medieval fortress, a commercial settlement and a Benedictine abbey; St Laurentius' church and the historic landscape of Bos t'Ename.

Photo by courtesy of the authors

will open in 1998, explores the daily life of the community of Ename during 1,000 years, from the early Middle Ages until the twentieth century. The purpose is to open the eyes of visitors to the history that is all around them. Therefore the past is presented as a puzzle pieced together again by scientific research. Visitors will be able to learn how it is done by assembling the pieces themselves with the help of available interactive techniques. The educational department of the museum in particular will teach young people the methodology of the research in a playful way.

South of the village centre of Ename on the green hills of the Flemish Ardennes stretches a particularly valuable historical-ecological area: Bos t'Ename. From the Middle Ages this wood has been linked to the small harbour town and the abbey. A footpath starting from the museum will stress this historical bond with the landscape.

Then there is the archaeological site that has been developed into an open-air museum. A common problem when presenting such a site is how to make the poorly preserved and complex remains comprehensible. This is no easy task, for however impressive or picturesque the archaeological vestiges may be, they can but rarely continue to fascinate most visitors. This was the problem confronting the site of Ename. What the visitor sees is a labyrinth of architectural remains of the foundations of the Benedictine abbey that dominated life in Ename from 1063 to 1795. The

remains of the early-medieval trade settlement (975–1050) are not visible, since they consisted mainly of ground traces that were dug up during the search and thus lost.

Some archaeological parks attempt to solve the problem by partly or completely reconstructing buildings, this being a rather drastic measure. If the reconstruction is inaccurate, the past architecture is distorted, in which case there is nothing left but to pull down the construction. For this reason a new technology has been developed for the site of Ename which may prove to have a worldwide impact. This presentation technique allows a site to be interpreted in a multitude of different ways, to different people, without reconstruction work. We call this evolutionary approach 'non-intrusive interpretation', a term created for Ename 974 by John Sunderland. Generally speaking, this refers to a number of technological means, called temporal gateways, which will bring archaeological sites to life.

The TimeFrame: combining the real and the virtual

In September 1997 a first interpretation system was installed at the Ename site: the TimeFrame. The concept is John Sunderland's and was technically developed by IBM. The Institute for the Archaeological

A sequence from the prototype TimeFrame™ on-site system shows a semi-solid three dimensional plan of the church of St Salvator, synchronously married to a real-time image of its archaeological foundations. This is seen by the visitor as if looking through a window at the open-air site and provides a moving interpretation of the evolution of the archaeological site over time.

Photo by courtesy of the authors

Heritage of Flanders was responsible for providing the archaeological information and the project was commissioned by the East-Flanders Provincial Government. The foundations of the abbey church were used as a test case.

What is the TimeFrame concept? The instrument essentially consists of a camera, a computer system, two monitors and a touch screen. A booth protects the TimeFrame and visitors from the weather. The camera faces the archaeological foundations of the church and transmits the pictures to the screens. The visitor sees a real-time image of the archaeological remains beyond, upon which photos, plans, drawings and animated virtual images describing the evolution of the site and its buildings are synchronously married to the real-time landscape. The touch screen allows the user to select programmes and, for example, when a construction from a certain period has been 'built' on the screen, the image can be kept for virtual interior exploration. The TimeFrame currently on the site is a prototype. The system is to be evaluated for two months and adaptations will be made on the basis of the experience gained. The initial response by the public to the TimeFrame can be summed up by the visitor who said, 'I have come to the site many times, but now because of this machine I can really see what it is all about.'

In 1998 the system will be fully operational. Several TimeFrames will be installed at key locations on a set route around the site to give a complete image. The use of the TimeFrame does not mean that the classic aids become superfluous; on the contrary, the first experiences at Ename are already making it clear that one only arrives at a complete understanding of an archaeological site when the new presentation methods are combined with traditional ones. So, descriptive graphic boards with plans, illustrations and text, combined with a hand-held guide, leaflet or audio tour in the archaeological park of Ename will still be used. The site of Megiddo in Israel is also developing a programme to incorporate TimeFrames in their site presentation, based on a cultural agreement between the East-Flanders Government and the National Parks Authority in Israel.

The archaeological site of Ename is scientifically so important that it would be irresponsible to research the whole area. Therefore, at least 6 hectares will be left untouched. An important part of this area extends to the south of the abbey, where the gardens were. To incorporate this zone in the archaeological park a new garden would be laid out here. If possible, the historical evolution of gardening will be shown, from the Carolingian period up to the eighteenth century.

Finally, there are plans to build a LifeScape Centre, a museum for the twenty-first century. The central theme of this centre is the story of everyday life from birth to death as illustrated through archaeology. The scheme aims to link sites around the world and demonstrate the similarity of human needs while highlighting the richness of cultural diversity. ■

Organized diversity: the Nuremberg municipal museums

Franz Sonnenberger

Centralizing the management of Nuremberg's independent municipal museums turned out to be the key to modernization. The new administrative structure, in place since 1994, has enabled the town's many small- and medium-sized museums to pool scarce resources and operate with greater efficiency and responsiveness to the public. The author studied history at the University of Munich and at Emory University, Atlanta (USA). From 1981 to 1991 he was head of department at the Nuremberg Centre for Industrial Culture and served from 1992 to 1994 as personal adviser to the Lord Mayor of Nuremberg. He has been director of the Nuremberg City Museums since May 1994.

Nuremberg, a city of just under 500,000 inhabitants, has a rich cultural life in which museums play a prominent role. The biggest museum of German art and culture, the Germanisches Nationalmuseum, will soon be celebrating its 150th anniversary. The Railways and Post Office Museums are also held in high esteem far beyond Germany. The former is run by a foundation and by the German Railways Corporation, while the latter is the responsibility of the German Federal Post Office. Then there are several small- to medium-sized municipal museums managed by the City of Nuremberg itself.

The Albrecht-Dürer-Haus reminds visitors of Nuremberg's greatest son. A modern extension has been added to the historic monument in which the master lived and worked. The Fembohaus Municipal Museum is accommodated in a fine Renaissance building. The Tucherschloss Museum takes the example of the von Tucher family to give an insight into the way of life of the Nuremberg patricians, a kind of urban nobility who ruled the town for centuries. The municipal art collection not only administers some 70,000 graphic sheets, but also the entire patrimony of movable works of art of Nuremberg, consisting mainly of paintings and sculptures from the Middle Ages to around the year 1950. The prestigious Toy Museum gives a comprehensive overview of the history of toys, with the emphasis on items made in Nuremberg – the capital of the German toy industry. The Centre for Industrial Culture, accommodated in a former factory building, is a synthesis between a museum of technology and one of social history, which traces Nuremberg's path through the industrial age.

1994 – Snapshots of the municipal museums

The Centre for Industrial Culture is preparing a photographic exhibition. As it has few picture frames of its own and no possibility of mounting the photographs itself, an expensive order had to be placed with a private company. Nobody in the Centre for Industrial Culture is aware that large numbers of picture frames are lying unused in the storerooms of the Fembohaus Municipal Museum, where there is also a member of staff who could mount the pictures expertly. The municipal art collection does not have a specialist in restoration. That is one reason why serious mistakes were made in the past over the storage of valuable works of art. The restorer in the Municipal Toy Museum, who also has a sound training in pictures, could help. But his services are not called upon because he is employed by a different municipal museum. For transport within the old city, staff of the Fembohaus use a prehistoric hand trolley. They can only dream of a motor vehicle of their own to move valuable works of art. Their museum is too small to be able to afford the purchase of a van.

Three years later

Photographic and graphic exhibitions no longer pose any problem to the Centre for Industrial Culture: the picture frames, like the display cabinets and other furnishings, have been assigned to a pool from which they can be borrowed by all the municipal museums when the need arises. Instead of a hand trolley, the museum staff now have a small truck of their own. The restorer, based at the Toy Museum, can be given work by the other municipal museums. Where once the storerooms of the Toy Museum and

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The Motorradmuseum in the Centre for Industrial Culture.

municipal art collection were terribly short of space, a noticeable improvement has now been achieved. A spacious, shared depository for both collections has been set up on the city outskirts.

All these substantial improvements are the outcome of the reorganization of the museums. With effect from 1 May 1994, a decision of the City Council combined the previously independent Nuremberg municipal museums under a single management with a shared organizational structure. Nuremberg City Council expected this to tighten up the decision-making processes within the museums and also to save substantial resources by making good use of synergy effects. The opportunity for a decision to reorganize the museums was created by the near-simultaneous retirement of three chief museum curators, whose duties were then combined. The new management took in the museums referred to earlier as well as the site of the old Reich Party Congress. Here, the City of Nuremberg has been organizing since 1985 a permanent exhibition illustrating the role of the city in the days of National-Socialism.

The newly structured museums of the City of Nuremberg employ 45 persons. The annual budget (staff and running costs) is around 7 million Deutschmarks (DM.). The museums have on average a total of 330,000 visitors each year.

For a long time before the reorganization, the numbers of visitors to the municipal museums had been steadily declining. This was a clear alarm signal, pointing to the urgent need for reform. The new museum management and the politicians realized that the attractiveness of the museums must be enhanced. The goals of the restructuring and rationalization measures initiated by the museums themselves had already been unanimously adopted by Nuremberg City Council in December 1994. However, the politicians made no extra funding available. Despite the prevailing adverse economic conditions, the munici-

pal museums have nevertheless succeeded in the meantime in arranging financing of around 5 million DM. for modernization measures by an innovative 'credit procedure'. Of this total, 3 million DM. are 'special' municipal resources which have been earned by the museums and must be reimbursed to them. The remainder consists of subsidies from foundations established under public law and sponsorship money. With the help of these financial resources, the museums of the City of Nuremberg will have taken vigorous steps by 1999 to make good the backlog of modernization accumulated through recent years or decades.

Better still, they have even succeeded in successfully implementing projects that would have been inconceivable previously. These include, in the first instance, the reconstruction of the Hirsvogel Hall, a Renaissance garden hall of the utmost importance to art history. This jewel in the crown of art history had no longer been open to visitors in its original state since the Second World War. The new museum organization played an essential role in making the necessary millions available at long last. Organized as a single grouping, the Nuremberg City Museums carried more weight with the municipal financial authorities than the specialized museums in the days of their independence. With their new organization, they also proved more attractive to foundations established under public law and to private sponsors.

One major structural advantage of the new form of organization resides in the central management of the municipal museums. Their director rationally complements the work of the individual museum curators. The municipal museum manager is still close enough to the individual museums to be able to judge and direct their work in an expert capacity. However, he is sufficiently remote from them to no longer approach the running and development of the museums entrusted to him solely from the narrower internal viewpoint of a conventional museum curator. He is therefore in a position to keep his distance from routine museum business. This makes it easier to put questions that are often uncomfortable about the purpose of everyday working methods and accustomed perspectives. Thus, the higher-level museum management is also able to work as an 'advocate of the public'. This plays an indispensable part in guaranteeing public acceptance of a museum. Overall, the new form of organization of the municipal museums has proved to be a driving force for innovative action.

Marshalling resources

The creation of a central management has released new energies on many levels. Certain functions, such as contacts with political authorities and other departments of the municipal administration, press and public relations, and also to a substantial extent the acquisition of sponsorship funds,

© Christian Höhn, Nuremberg

Detail of the façade of the Fembohaus Municipal Museum, a Renaissance building dating from 1591–96.

are for the most part handled by the central organization. Thus, the individual museums are relieved of what they frequently perceive as unpopular activities. It has therefore become possible for them to turn their attention to tasks that had previously been neglected. One good example is the Toy Museum, which first set about the creation of an EDP listing of its inventories in 1994 and has since done pioneering work in this area. The same applies to special events, together with exhibitions and publications that have gained considerable importance in this and other municipal museums.

The Nuremberg municipal budget reached the limits of available resources many years ago. The fact that many investments have nevertheless become possible for the municipal museums is not due solely to the mobilization of new funds but also to the better use of existing money. The creation of a central 'financial pool' enables action to be taken quickly with less bureaucratic delay. The purchase of a small truck is just one example among many. Without cumbersome application and authorization procedures, measures can now be taken quickly which would otherwise have dragged on for years. The new organization has also replaced competition between the individual museums by a rational balance of interests. The financial 'reward' no longer goes to the applicant who carries the most clout with the politicians, but to the one whose investments are the most urgent.

In the personnel sector, a pool of restorers and specialist technicians has been set up. This has enabled staff to be released, if necessary, at relatively short notice from their traditional activities and temporarily assigned to a different museum. As a general rule, this scheme works very well, but it did take time for staff to become

A display of early twentieth-century toys at the Toy Museum.

accustomed to the new way of working. The reorganization has also proved successful in another respect: personal incompatibilities among staff which had, for instance, practically paralysed one of the municipal museums have been solved by transferring an employee to a different post within the Nuremberg municipal museums. This was relatively easy to arrange, as it simply involved a move within the same department.

The same consideration applies to job conversions. For instance, posts for craftsmen or museum keepers which were no longer needed have been used to create a new post for marketing and public relations duties. This reorganization enabled the Nuremberg City Museums to pave the way into the future: without professional public relations support, the Nuremberg museums cannot possibly survive on the 'leisure market', which is an area of increasingly keen competition. This measure would have been inconceivable for any of the small and independent Nuremberg museums in their previous form. The creation of a larger museum structure was vital to make this step both logical and feasible.

The many benefits of centralization must of course be weighed against the drawbacks. These include, for instance, longer decision-making routes. Many things that had previously been decided at the level of the museum itself are now ultimately a matter for the central office. The best solution has proved to reside in the limitation of centralization to a reasonable extent. In the first phase of reorganization, strong management and centralization of decision-making powers were vital. However, in the long run this direct access of the director to the individual museums is neither feasible nor sensible. That being so, a balance must be struck between central management and decentralized responsibility for resources. The principle followed in Nuremberg is clear: 'As centralized as necessary, as decentralized as possible.'

On completion of the complex restructuring and rationalization measures, the individual museums will therefore again be endowed with annual budgets which they will themselves administer. However, at the beginning of each year, joint budget estimates will be prepared. There can be no question of creating new reserved budgetary areas. On the contrary, an attempt must be made to enable key decisions to be taken by consensus in future, for example, for certain acquisitions or exhibitions. The final decision on such matters will continue to rest with the director of the Nuremberg City Museums.

All in all, the amalgamation of the Nuremberg municipal museums proved to be the right decision. The new form of organization is undoubtedly more efficient in many respects than the previous coexistence and rivalry between many small museums could be. On the other hand, the type of organization adopted in Nuremberg is certainly not the right model for cities with large museums. In such cases, centralization would not make much sense because all the benefits of such measures can already be achieved in a single building. For cities with many small- to medium-sized museums, Nuremberg might, however, be an effective model, showing how to derive the maximum benefit from the potential of these establishments. ■

The reopening of the Palais des Beaux-Arts in Lille

A Museum International report

The reopening of the Palais des Beaux-Arts in Lille in June 1997 was a major cultural event in France, as this renovated and enlarged institution is now one of the country's most prestigious museums. Museum International was invited to preview the premises.

The atrium as seen from the first floor of the museum.

© H. Abbadie, DMF/Palais des Beaux-Arts

After five years of closure and four years of work, the major project to renovate and extend the Palais des Beaux-Arts in Lille and to reorganize its remarkable collections has now been completed. The museum now covers an area of 22,000 m ^{2}.

This vast operation was made necessary by the obsolescence of the premises, particularly the reception facilities, the outdated museographical methods employed and the decision by the Ministry of Culture (Heritage Directorate) to deposit sixteen scale-model relief plans previously kept at the Hôtel des Invalides in Paris. It has been carried out under an agreement between the state (Ministry of Culture/Directorate of the Museums of France), the city, the Nord-Pas-de-Calais region and the Nord department.

The whole project, assigned to the architects Jean-Marc Ibos and Myrto Vitart, was based on a few simple principles: to open up the museum to the city, to make it attractive to the public, to enlarge it sufficiently so that it could fulfil all the functions of a modern museum, and to show off as effectively as possible the prestigious Lille collections.

The building, constructed between 1889 and 1892 by the architects Bérard and Delmas, has now recovered its original layout and spatial arrangement. The atrium, freely accessible to visitors, as is the entire ground floor, has once again become the heart of the Palais. It is this central meeting-place, with its reception and information facilities, that gives access to the rooms housing the permanent collections.

The creation of an open space beneath the garden and the construction of an additional building (the Bâtiment Lame) have given an extra dimension to this whole project. The new underground room for temporary exhibitions is covered by a series of glass slabs and is inundated with natural light. The new building, set within a clear perspective, houses the administrative services, the collection of drawings, the association of the Friends of the Museum and the ground-floor restaurant facing the garden. 'It is', in the words of the architects, 'a slender laminate structure consisting of a succession of linked vertical planes rising from the garden. The first is a plane of transparent glass reflecting from a network of mirrored points an impressionistic image of the Palais; set back and on the same perpendicular are gold monochromes on a red background. The whole complex is a symbol of the museum'.

A book- and giftshop, a restaurant and a tea room, rest areas, the forthcoming opening of an auditorium and, in more general terms, information facilities and the organization of cultural events are all factors that will help to make the Palais more welcoming to French and foreign visitors.

The new presentation of the most outstanding works in the museum, such as Paradise and Hell by Bouts, Donatello's Feast of Herod, and Time and the Old Women by Goya, is just one aspect of the far-reaching work undertaken to reorganize the collections. The sections devoted to the Middle Ages and the Renaissance, the ceramics department and the painting department have, in fact, all been totally rearranged.

The paintings of the Flemish school (Rubens, Van Dyck, Jordaens and so on), the Dutch school (Van Hemessen, De Witte, Codde, Van Ruisdaël and Lastman), the Italian school (Tintoretto, Guardi, etc.) and the Spanish school (Goya), together

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with the paintings of the great French masters of the eighteenth and nineteenth centuries (David, Courbet, Puvis de Chavannes and so on), have now been supplemented by works hitherto kept in the reserve collection. Many of them have benefited from an extensive restoration campaign undertaken by the Restoration Service of the Museums of France. In all, 700 items (paintings, sculptures and objects) can once more be seen in all their glory.

Finally, the reopening of the Palais has led to the establishment of two new departments, one devoted to nineteenth-century sculpture and the other to the spectacular relief plans of towns fortified by Vauban in the reign of Louis XIV. The relief plans are three-dimensional models on a scale of 1:600 of fortified towns located on the borders of the former kingdom of France. They provide an extraordinarily accurate and evocative picture of these towns under the Ancien Régime. As well as being of great documentary interest in showing the urban fabric, monuments and fortifications, they also often show a considerable area of the suburbs and the surrounding countryside.

Yet it would be quite easy to forget, as we admire them, that they were constructed for exclusively military purposes. In the reign of Louis XIV, Louvois, Secretary of State for War, realizing the essential role played by fortified towns in the conduct of war and the consolidation of frontiers, decided to have the models made so that it would be possible 'to touch and see all the weaknesses' of these towns and have them 'corrected' (letter from Vauban to Louvois, 1695). It was in response to the needs of the artillery that such a large part of the surroundings of these towns was included.

© H. Abbadie, DMF/Palais des Beaux-Arts

The new underground gallery for temporary exhibitions is covered by glass slabs and is inundated with natural light.

However, the constant improvements and advances in the manufacture of artillery throughout the eighteenth and nineteenth centuries meant that after 1870 the models ceased to be of any practical use. Of the 100 or so existing models, sixteen are now displayed in Lille as the result of an agreement made between the state and the city in 1987. They include seven fortified towns in the north of France, eight in what is now Belgium, together with Maastricht in the Netherlands. Dating back for the most part to the eighteenth century and located in a frontier area repeatedly ravaged by war, they show us how certain towns once looked and provide rewarding comparisons with fortified towns that are still conserved.

With the opening of the Palais des Beaux-Arts, in its enlarged and renovated form, the city of Lille, a European cross-roads of communication with its high-speed rail links, the Channel Tunnel and the international business centre Euralille, is consolidating the national and international reputation of an institution that is now of major importance. Two significant exhibitions planned for 1998 amply demonstrate this: one will be devoted to Lille's most famous artist, Watteau, and the other to Goya. ■

Books

Marketing the Museum by Fiona McLean. (London/New York, Routledge, 1997, 257 pp.)

During the Post-modern epoch Andy Warhol and Marshall McLuhan predicted the future context for society and museums.

In 1968, when Andy Warhol declared that one day 'everybody will be world-famous for fifteen minutes', he understood that we are living in a world that is driven and consumed by hyper-reality and that even notoriety will become as common as grains of sand. His statement has an exponentially greater ring of truth today, as our options for receiving news have expanded to include round-the-clock news networks on cable television and instant access to on-line news services.

'The medium is the message,' pronounced so eloquently by Marshall McLuhan, captures the superficiality of contemporary society. It also provides a challenge to museums to offer their authentic artefacts to the public so as to create an 'experience', rather than merely showcases of rare objects. Does this mean that museums should engage in 'edutainment', rather than education, to compete with the various leisure options available to a computer-driven audience?

These are just a few of the 'external factors' that contemporary museums must recognize and address if they are going to prevail in the twenty-first century, according to Fiona McLean in her thoughtful and extensively researched book, Marketing the Museum. This book should be a resource, not just for museum marketing professionals, but also for museum directors, trustees, politicians and others who have oversight responsibility for museums. As McLean says, 'Marketing is not to blame for the mass deception of society. It is merely a management tool, which in enlightened hands can be directed towards achieving all that a public-minded museum could wish.'

It is clear that if museums are to compete effectively for leisure time, tourists' attention and alternatives to education, they will have no choice but to adopt some of the techniques employed by the commercial sector. Though obviously geared to an academic audience, Marketing the Museum offers guidance to building the relationship between museums and the public. Concrete examples are cited to illustrate how the techniques of marketing have been applied by museums to help them fulfil their missions. Numerous studies are cited to demonstrate the impact and effectiveness of marketing approaches.

In the first chapter, 'The Museum Context', McLean sums up the dichotomy of the modern museum: 'A number of factors have contributed to this dilemma: between the image of a museum as a temple and as a public forum; between the museum as a pedagogic pursuit and as a place for enjoyment; between the museum as a process of collecting and research, and the outreach of education and exhibition; between the scholar and the layman; between objects as specimens; and between museums as private and public.'

Having set the stage with numerous issues and challenges in chapters entitled 'The Museum Context', 'The Marketing Context', 'The Museum Environment' and 'Museums and the Public', McLean's explanation of the marketing context is most valuable.

McLean credits Peter Drucker as the first commentator to argue for a marketing orientation in business, [1] where the customer's standpoint regarding the product was at the centre of the business endeavour. The customer's needs had to be determined before producing goods,

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rather than manufacturing products and then persuading customers to purchase them. Thus was born research that would analyse segmentation, targeting and positioning in the market-place. In order to be competitive, products should not only take into account the needs and wants of customers, they have to begin with them. This theory, of course, opens up the whole question of comparing a non-profit public institution to a commercial enterprise.

McLean goes on to make the case that 'the museum product' differs from goods, which can be defined in terms of physical attributes and the 'bottom line'. Museums, on the other hand, provide 'services which are intangible', they are not self-supporting and, except in rare cases, do not generate a profit. It has been argued that because of government cutbacks and loss of corporate support, museums would be better off if they were not based on a 'dependency culture'. This is the rationale for introducing the museum community to the dynamics of Drucker and Kotler (Marketing for Non-profit Organizations, 1975) and McLean's Marketing the Museum.

Museums, however, exist for the 'public benefit', not to make a profit. This, then, is the most important difference, and while McLean discusses the pros and cons at length, the leadership role that public institutions have to play in a rapidly changing society is slighted. Today, when tradition is translated into minutes and heritage equates with being politically correct, museums have a responsibility to exhibit, educate and entice based on objective or scholarly truths, not based on the 'bottom line' or the donor's gratuitous underwriting.

Similarly, when McLean talks about the public's role in determining museum exhibitions, she cites the study by Seagram, Patten, and Lockett, [2] comparing the traditional 'mandate-driven model' – whereby the museum's academic staff makes the decisions – to the 'market-driven model' – where the audience makes the decisions. Obviously, in determining what museums offer in their exhibits, a conceptual framework should make possible a coherent programme of audience research that is balanced. In an ideal world, basic and applied research would be conducted, but too often this research is expensive and museums do not have the time or the funds. Again, at the risk of alienating populists, it is ultimately the responsibility of the museum to exercise leadership in determining its activities. After all, that is why museums hold the public trust.

McLean points out some of the pitfalls of marketing. She even suggests that 'marketing is too manipulative' and that museums have an inherent good that will attract audiences regardless of exploitive techniques. Sadly, at least in the United States, where every person is defined as a consumer and marketing saturates society, museums cannot remain above the fray without risking their viability.

During the 1990s, new trends that museums should be aware of include: (a) establishing a lasting dialogue or closer relationship with clients (McLean cites Gronoos' 1990 study, which showed that it costs five times more to attract a new customer than to keep an existing one); (b) paying attention to what the customer wants; (c) developing specific promotions that reach the right audience; (d) utilizing image-building and identity transference to build and expand the market; and (e) the emergence of 'individualized' marketing, replacing micro-marketing as the catchword of the 1990s.

A good case for museum survival in the 1990s is made by McLean. Given today's environment, museums should

implement the best of the marketing techniques. For example, museums should actively pursue expanding the potential for income-generation and development activities, and engage in communicating the museum product. McLean provides excellent case-studies for all these activities. While her citations are impressive, they mainly concern museums in the United Kingdom, reflecting a tremendous amount of research and experience in the application of marketing to the museum-and-heritage industry in that country.

In our deconstructionist age, reality has collapsed; we are manipulated by image, illusion or stimulation, rather than reality. The future is even more uncertain and will undoubtedly accelerate with greater speed than heretofore anticipated. Museums, institutions that were created during the Enlightenment, were not originally intended for the public, and have faced a tremendous transition. When museums were first established in the United States, they represented the traditional purposes of collecting, curating and conserving, but Americans took it a step further. J. P. Morgan, Henry Clay Frick, John D. Rockefeller, and many other benefactors looked upon museums as extensions of the democratic process, a way to educate the masses. While the implementation may have differed, the intent was to open the doors so that equal opportunities were available to everyone.

After much discussion, McLean acknowledges that museums are extremely complex organisms which encompass scores of different activities and events, while at the same time possessing a common unique denominator – their collections. In the marketing vernacular this is referred to as a unique selling proposition (USP). Let us keep in mind that there are institutions today that do not possess collections, yet they are considered museums. Does this dilute their effectiveness?

To a generation that has grown up in a world of synthetic environments, virtual reality and simulated experiences, museums are the only institutions that can provide authenticity through real objects, artefacts, paintings and sculpture. It is the responsibility of the caretakers and interpreters of this material culture to protect it for future generations, and simultaneously to attract a diverse audience.

Interestingly, McLean concludes that after the organizational machinery and the staffing and marketing capabilities are stripped away, it is still 'the individual who takes possession of aspects of the collecting in a manner that transcends literal ownership.' In the end, museums enhance the visitor's self-image and present the continuity of humankind through the visible interpretation of a human being.

To fulfil the institution's mandate at its greatest potential, the contemporary museum is obliged to consider a marketing orientation programme. Fiona McLean's Marketing the Museum offers much to assist in that endeavour.

Book reviewed by Lee Kimche McGrath, chief executive officer of Global Museums China, LLC; executive director of the Friends of Art and Preservation in Embassies; and president of International Cultural Communications, a firm specializing in the development and management of cultural projects throughout the world.

Notes

1. Peter Drucker, The Practice of Management, Oxford, Butterworth Heinemann, 1954.

2. B. C. Seagram, L. H. Patten and C. W. Lockett, 'Audience Research and Exhibit Development: A Framework', Museum Management and Curatorship, Vol. 12, No. 1, pp. 29–41.

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