

Cultural landscapes: new strategies of preservation

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Summary

During the past few decades, there has been a swift renewal of methods and techniques applied in archaeology. These new approaches are no longer restricted to the frame of an excavation but can concern micro-regional, if not, with satellite images, large regional spaces. Gaining access to new means has stepwise affected the consideration of archaeological sites as existing within an overall network of sites, integrated with the general surroundings and the landscape as a whole. The new strategies have been developed to preserve cultural landscapes as an expression of European heritage, to improve understanding of the areas concerned by their inhabitants, to convert the landscape heritage into a comprehensible and informative resource for visitors. The key management tool for these inherited landscapes are Cultural Parks. They are conceived as open spaces of variable sizes, structured on a geo-historical space and around a specific theme from a central reference: an archaeological area, a site, or a regional complex. Cultural Parks are becoming the most effective means of defending and promoting historical landscapes. They are also helping to create a high standard of cultural tourism. The Cultural Park of the Biterrois in Béziers, France, the Pella-Dion-Vergina triangle in Greece and the Karthaia Project in the Cyclades are presented as examples of protection, unification, and enhancement of the historical and natural environment in the large areas of considerable archaeological interest.

Introduction

During the past few decades, there has been a swift renewal of methods and techniques applied in archaeology. Archaeologists and historians have worked alongside various specialists, and their efforts have had a substantial influence upon problem definition, data processing and the interpretation of the relationships between past societies and their environments. Likewise, researchers have been becoming more and more aware of the necessity of preserving and protecting cultural possessions, both movable and immovable.

The development of new methods and non-destructive techniques has led to new approaches. This holds true for remote sensing, teledetection or aerial survey, geophysics involving the use of electric or magnetic techniques (radar, G.P.S.), geochemicals etc. The use of non-destructive techniques has gone with the development of the surface sampling of artefacts, in-

stead of excavating that brings risk of destroying the site (TREMENT, 2000).

More recently, important discussions have arisen concerning the best methods of managing and bringing to prominence the qualities of excavations and archaeological data, as well as highlighting generally the entire historical and cultural heritage of a city or even an entire region. From this perspective, the huge growth in information and communication sciences has paralleled the turn that museology has taken, in terms of striving to present cultural data to larger and larger audiences, in places which are no longer accessible only to specialists (KAPLAN, 1994).

Archaeology and the material remains of the past play a part in everybody's life, whether it is in a daily and 'innocent' manner, or related to the increasing urbanisation of suburban and rural areas. Thus, both citizens and authorities confront new problems created by the lack of connection between the requirements of a growth, which is seldom under control, and the new interest in the preservation of the past, in its whole comprehensive meaning (LEECH, 1999).

The idea that cultural remains in the landscape are interesting and relevant has developed rapidly in recent years, but with little consensus. However, there is general agreement that we need to consider the natural and human components as an integrated whole. In most European countries, legislation concerning the protection of cultural heritage has a very long history, but mostly in the protection and preservation of single historic monuments. In recent years, several countries have taken landscape preservation into account, from a perspective that corresponds to that of the European Convention of Landscape (SANCHEZ-PALENCIA, 2002).

The renewal of methods and techniques

Cooperation between various disciplines is responsible, to a large extent, for the adoption of new tools, as well as for the widening of thematic horizons concerning archaeo-historical perspectives. This has been confirmed by our workshop, during which we had recourse to applied sciences in the reading and preserving material vestiges of the past, from Egyptian antiquity to religious monuments from the eighteenth and nineteenth centuries.

The goal of this renewal is twofold: firstly, to better understand cultural heritage, and, secondly, to make

the right decisions to preserve or to restore. In practice, we know that the large-scale renovation projects at major archaeological sites worldwide have led to the adoption of basic common principles – principles that have been taken into account at the conclusion of international treaties (RE, 1998). As far as our conference is concerned, uniting the diverse approaches to archaeological heritage with the proclaimed goals of long-lasting or sustainable development constitutes major progress, which is directly linked to our own research practices.

Moreover, these new approaches are more often carried out on a much larger spatial scale than the frame of an excavation, which is sometimes restricted to a few square inches. For instance, we can see (Table 1) the spatial scale of the different methods of survey, which are no longer restricted to limited spaces but now also concern micro-regional spaces, if not, with satellite images, large regional spaces.

Gaining access to new means has stepwise affected archaeological problem definition, bringing it closer to historical research by going beyond the examination of single objects and monuments, seen as works of art, to the consideration of archaeological sites as existing within an overall network of sites, integrated with the general surroundings and the landscape as a whole (LEVEAU, 2000).

Having opened itself up during the last few decades to the study of all kinds of cultural products, the field of archaeology has notably learnt from natural and physical sciences. These sciences have contributed in new ways to our knowledge of ancient societies, and have allowed us to consider them in their relationship with the natural environment. As for sustainable de-

velopment, we would like to emphasise the archaeo-history of the ancient landscapes which have not been altered.

Because of its 'overall dimension', a landscape is composed of signs linked to a society's collective memory. Yet the landscape of the past as cultural property in its own right, and as the product of a society, has only been recently recognised (VON DROSTE, 1995).

In multi-disciplinary studies and the application of new technologies which have been developed by several European research groups in the Mediterranean countryside, the Roman regular landscapes occupy a special place (GROVE, 2001). The use of aerial photographs, aerial surveys involving thermography, and photo-interpretation, have facilitated, for the last half-century, the location of traces, active or fossilised, as well as creation of maps of the spatial distribution of settlements serving to develop or conquer land suitable for cultivation. Their geometrical regularity, the centurions' technical texts, and the illustrations left by Roman land surveyors have passed on to us their concepts and patterns. These have allowed us to develop systematic methods of shape-recognition. First, optical techniques are used, then digital techniques using multi-source data (general and thematic maps, aerial photographs and satellite geo-referenced images). Quite recently, a test was performed in southern France, in an area where ancient structures are well-preserved and where the results of research have led to a sufficient amount of information (CLAVEL-LÉVEQUE, 2001–1).

The data concerning soil (agricultural potentialities, the land occupation and ancient rural sites, positioned through GPS), has been collected in a computer data-

Table 1: Spatial scale of the different methods of archaeological survey (TRÉMENT, 2000).

SURVEY TECHNIQUE	DEFINITION	SUPERFICIES	SPATIAL SCALE
Space teledetection	10 m	Millions km ²	Regional
Satellite photo	3 m	Thousands km ²	Regional/microregional
Aerial radar	1–2 m	Hundreds km ²	Regional/microregional
Photo-interpretation	1 m	Hundreds km ²	Regional/microregional
Thermography	1–2 m	Hundreds km ²	Regional/microregional /local
Aerial survey	0.50 m	Hundreds km ²	Regional/microregional /local
Surface sampling	1–10 m	Km ² /m ²	Microregional/local
Seismic methods	1–10 m	Thousands m ²	Microregional/local
Georadar	0.50 m	Thousands m ²	Local
Electric survey	0.25 m	Thousands m ²	Local
Magnetic survey	0.50 m	Thousands m ²	Local
Electromagnetic survey	0.50 m	Thousands m ²	Local
Microgravimetry	0.50–1 m	Hundreds m ²	Local
Geochemistry	0.50 m	Thousands m ²	Local

base and put together with both image-processing tools and GIS tools in order to implement a spatial 3D analysis. The results have enabled us to observe the settlement conditions of the different structures, and the links with natural data: farms, paths, and the 'limits', road-lines of the Roman centuriation, complete with altitudes or slopes. A margin of error has also been defined (CLAVEL-LÉVEQUE, 2001–3).

Eventually, computer-generated images make it possible to rebuild missing sections of the structures. Since the images allow the presentation of different hypotheses, it will be easier to choose from among them and, if necessary, to readjust the research scope (SLAPSAK, 2001). This is what we have experienced concerning the arrangement of the centuriated networks of major lines, the distribution of regular areas in the territory, and the insertion of farms throughout the centuriated grid. All of this was conducted from correctly documented cases, thanks to surveys or excavations.

New technologies allow us to better understand and visualise the dynamics of cultural landscapes, and to direct the different policies of conservation and valorisation. It is necessary to develop new strategies to obtain:

- Renewed means of preserving cultural landscapes as an expression of European heritage.
- Improved and more integrated understanding for the inhabitants of the areas concerned.
- Suitable mechanisms for the conversion of landscape heritage into a comprehensible and informative resource for visitors.

With this aim we have developed, within our COST Action G2, a new protection strategy and a new management tool for these inherited landscapes by creating Cultural Parks (NAPPI, 1998).

Cultural Parks as a strategy of valorisation

Although national legislation has not established a specific legal framework for Cultural Parks, European and international institutions, such as UNESCO, have proposed some good guidelines. We have defined, with sufficient flexibility, the criteria and objectives. They can be used for managing and protecting diverse types of parks that offer a wide variety of cases, problems, structures and solutions which constitute points of reference for the cultural heritage (PLACHTER, 1995).

The concept of the Cultural Park stresses the importance of seeing and understanding historical remains in relation to their natural surroundings, and attempting to present more holistic images of past periods rather than the singular presentation of an isolated,

albeit outstanding, historical monument (ROESSLER, 1995). Conceived as open spaces of variable sizes, the Parks are structured on a geo-historical space and around a specific theme from a central reference: an archaeological area, a site, or a regional complex (BATTAGLINI, 2002). Routes developed with the help of scientific researchers guarantee conditions for discovering the landscape heritage, as well as the present dynamics of the area. These conditions integrate a measure of preservation with lasting development and a better access to culture.

The different landscapes involved are unique, mostly centred on ancient realities, thus demanding varying methods of valorisation with local adjustments. Here are three examples:

The Cultural Park of the Biterrois (Béziers, France)

Located in Languedoc, between the Mediterranean coast and the first hills of the Massif Central, the Park covers about 250 km², in a region frequently visited by tourists in summer (mainly by the sea). The Park operates on the territory of nine municipal districts within the framework of an association that gathers public and private partners. The region has gained distinction for having kept rural structures preserved, and has enjoyed several research programmes, particularly those developed by our team at Besançon University and CNRS. The results of these research programmes have shown us how to valorise a complex and varied cultural heritage. This is especially true for Roman Antiquity.

The conditions are interesting for tourists primarily because of the relationship between the ancient rural landscape and its development. The area was selected as a Pilot Territory in October 2001 by *l'Agence Française pour l'Ingenierie Touristique* (AFIT) of the French Ministry of Tourism.

The Biterrois region has known intense settling since at least the 5th century BC. Two key *oppida* – Béziers and Ensérune, highly Hellenised Celtiberian towns – have emerged as the leading centres of local development. Béziers was the centre of rule of a large area which was divided into numerous allotments according to the specific land management system of the Roman centuriation. The traces of that heritage are still visible throughout the territory and in the very structure of the landscape, even though recent development poses a serious threat to the heritage. The industrial zone is inscribed right within the limits of an almost entirely preserved centuria.

Implementing the fundamental research that provides the valorisation strategy fits with the working out of several discovery itineraries, built up around

large themes and sites, whether devoted to monuments or to landscapes. A few examples might serve to clarify this.

- The domitian way, which linked Italy to Spain, the emblem and the main line of the Park, should be given supremacy among the itineraries and, in this regard, is to be given the benefit of an important archaeological operation, which has already been scheduled. In addition, this itinerary is organically linked to the route focused on the 17th century Canal du Midi, registered on the UNESCO World Heritage list, which obviously has been recognised as a key element of the park.
- The itinerary that runs from dunes to scrublands (Figure 1) is one hundred kilometres long. It starts from the coast and the ponds, crosses the whole park and connects several thematic itineraries, such as the archaeological route in which Ensérune and Béziers, with their wealth of museums, are the reference points. This itinerary mainly includes traces of the 'square landscapes' in the countryside, inherited from the Romans. This is a typical style of organisation, linked to the vineyard, which has a fundamental place in the cultural identity of the Biterrois.

The impact of centuriation and Roman settlement, which contributed to make the countryside what it is, still gives direction to numerous paths and communal borders or to private properties in the whole Park territory. Many Roman domains, recognised for their farms, have indeed exploited the ponds and the soils devoted to cereals or wine. They have often established the housing settlements and determined the local names and the places to this day.

- An itinerary focused on the major economic regional choices, from Antiquity to the present day, would frame them within a more extensive history.

At the two major crossing points (Béziers and the Culture and Tourism Inter-communal House, opened in 2001), visitors can find informative documents traditional as well as multimedia aids (CD-Rom), reconstructed landscapes, and multimedia and interactive reconstructions. New technologies are widely used by researchers: they allow the visualisation of the latest results and the preservation of the memories of the heritage which is endangered, or might become endangered or buried (CLAVEL-LÉVEQUE, 2002-2). From this perspective, the 3D plan and the architecture of the Roman town forum also form the subject of a virtual restitution based on the few archaeological items available in a city that has known constant occupation, but has been seldom excavated. The Biterrois Park, however, is not purely a product of research. It also aims to co-ordinate, with clear scientific goals, some already existing local efforts in order to respond to the high requirements of a new audience,

and to develop a high standard of cultural tourism, in order to reach socio-cultural aims as well as developmental goals. In this regard, it has endeavoured to take into account the necessary accessibility of all cultural objects.

Increasing the population's sensitivity to the quality of local heritage should serve to help preserve and promote it. Therefore, the park seeks to attract all types of people, encouraging people to spend quality spare time and to engage in alternative tourism.

The Pella-Dion-Vergina triangle

The Archaeological Receipts Fund of the Greek Ministry of Culture has planned a complete intervention within the triangle formed by the archaeological sites of Pella, Dion and Vergina. This will cover a large geographical area delimited by three major archaeological sites and including many others of minor importance but representative of all periods of Greek history. It is a pilot project for the drafting of conservation plans for other archaeological sites where a great part of the proposed excavation and restoration work has been executed.

According to Greek authorities, this project constitutes a specialised and multifaceted scientific attempt that aims at:

- The protection, unification, and enhancement of the historical and natural environment of the archaeological sites.
- The upgrading of the services offered to visitors.
- The creation of a new relationship between the citizen and the monument.
- The dynamic promotion of the area through local, regional, and national cultural activity.
- The subversion of the tendency to maintain monuments and archaeological sites as museum exhibits, cut off from modern life.

At this point we should add that the development of this triangle is of capital importance, since it is considered to be the nodal point for the creation of a large network of cultural tourism across the entire Macedonian region, and the development of special thematic routes such as:

The route of prehistoric years – mainly of major prehistoric sites in Western Macedonia – the lakes of Kastoria, Prespes, as well as the sites of Olynthus, Amphipolis, etc. (total length 767 km, total duration of the route 645 min by car).

Alexander the Great's route – including major sites connected to the time when Alexander was the ruler of Macedonia (total length 587 km, total duration of the route 525 min by car).

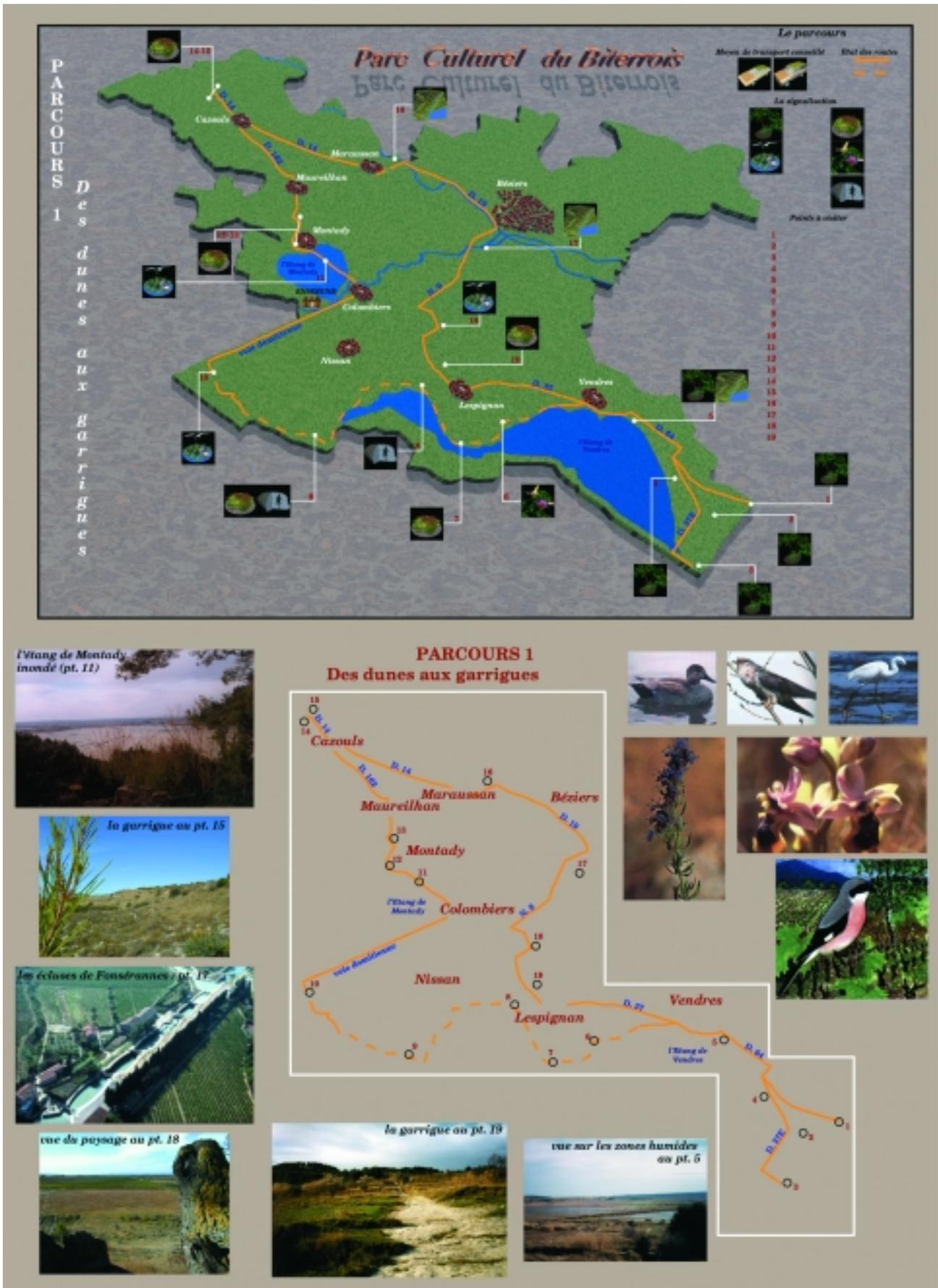


Figure 1. The Cultural Park of the Biterrois.

Route of ancient via Egnatia – following the Roman road (total length 319 km, total duration of the route 287 min by car).

The Park includes the three major archaeo-historical poles of Macedonia, among which Greek authorities have already prepared the Pella pole. This is a huge, linear field centred around the traces of the ancient capital of the Macedonians, among which nearby Roman sites and prehistoric tumuli are found.

This valorisation of sites strives to allow the visitor to explore the Hellenistic city of Pella and to experience its ancient Hippodamian town planning. Another purpose it serves is to direct the visitor to the ancient graves that lie along the route that the Ancients once walked. Therefore, the entire route is provided with visitor reception facilities, car parks, and points for panoramic views of the region (ARCHAEOLOGICAL SITES, 2000).

It is easy to see that the Ministry of Culture wishes to satisfy certain societal needs by bringing this tremendous plan to the fore. These needs are firmly linked to the spirit of our time, which requires appropriate valorisation and efficient management of cultural goods. Still, the target public of such a valorisation project is not limited to tourist groups but also includes the region's inhabitants (the triangle is less than an hour from the very important urban centre of Thessaloniki).

The Karthaia Project (Cyclades)

Promoting the antiquities found at the now desolate town of Karthaia, lying on the south-east coast of the isle of Kea in the Cyclades, illustrates a strategy of connecting the cultural heritage with the needs of the city of tomorrow. Indeed, if in the Pella-Dion-Vergina triangle in Macedonia we shall see the creation of a park on the outskirts of a large urban centre and at the junction of major thoroughfares, in the Cycladic Karthaia we have a derelict, isolated and inaccessible place, one that does not even meet basic standards of living, such as a supply of water or electricity. Karthaia is at the mercy of unlawful archaeological excavations and human or natural destruction (FITTCHEM, 1998).

This archaeological site and the surrounding area was subject to a systematic ethno-archaeological survey, from which arose new and important data relating to the organisation of the city and its agricultural territory in the Classical and Hellenistic periods. This approach concerns not only the urban data but also elements related to the organisation of the town's agricultural landscape, its rural settlements, cultivation, and so on.

On completion of the archaeological survey, the issue of preserving these remains was posed. Should these ruins be integrated into their wider rural surroundings, they would acquire additional value, since

they clearly present us with an ancient Greek town of the Classical period. Moreover, they indicate the survival of the structures of rural organisation over the course of many centuries (MENDONI, 1998).

The preservation of this heritage essentially requires the promotion of these monuments and their incorporation into the web of the current and future needs of the town and the society that surrounds them. Though distant from the modern town of the island and the port, the reasonable promotion of Karthaia and its monuments would lead to its better protection against both natural and human damage. Furthermore, the organised promotion of these antiquities would create an important pole of attraction of economic activity for an island whose economy no longer relies on traditional mixed-farming production but on tourism, which, however, lacks systematic planning.

The great expanse on which the antiquities are situated renders it necessary to plan the archaeological park of Karthaia practically from the beginning. Therefore, undertakings such as the creation of road access to the site, an information centre, and a location for the accommodation of a small archaeological collection are included in the current project. Also under consideration is the creation of paths for visitors, as well as the installation of an electric bus route (STUDY OF PROTECTION, 1996).

In the immediate future, there will be a continuation of projects aimed at preserving, restoring, and completing the 5th century temples of Athena and Apollo, the full unveiling of the theatre, and the preservation of burial monuments, farming terraces and small aqueducts once used in the water supply network of the town and its gardens. Additionally, the preservation or restoration of more recent buildings and their use for contemporary purposes are anticipated.

Adopting this strategic promotion of archaeological properties as being, to a great extent, beyond all parameters (economic, tourist, cultural), strongly emphasises its educational character, based on our modern perception of past societies. This method stresses not only the isolated monument, but attempts to capture it within its time-space context.

Conclusion

It is obvious that current research will add additional value to the parks, and will contribute to the development of rational management of cultural properties that meets tomorrow's social and economic needs. Cultural Parks, now structured in a network, are becoming the most effective means of defending and promoting cultural heritage, particularly historical landscapes. They are also helping to create a high standard of cultural tourism.

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