

THREATS AND VULNERABILITIES IN ARCHAEOLOGICAL SITES. CASE STUDY: IASOS

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Lecturer in the Department of Architecture, Faculty of Architecture, at the Middle East Technical University Iasos is situated on the western coast of Asia Minor between Miletus and Halicarnassus in the modern Turkish province of Muğla. The ancient city is located on a small peninsula joined to the mainland by a shallow isthmus on the Gulf of Mandalya, opposite the modern harbor of Güllük. The peninsula is flanked by two protected harbors, the smaller one to the west referred to as the Little Harbor, and the bigger one to the east known as the Big Harbor. The ancient city, including vestiges from the Early Bronze Age to the Middle and Late Byzantine periods, arose on the peninsula which is dominated by a steep and rocky hill, while the necropolis was situated on the mainland. The archaeological excavations at Iasos initiated in the 1960's by the Italian Archaeological School at Athens are still carried out by an Italian mission. The survey of the hinterland and the Gulf of Mandalya has been conducted by another Italian mission since 1988. In the last years, the activity of the excavation team has focused on the consolidation and restoration of some of the major monuments which had already been subject of an archaeological exploration², however an overall plan for the conservation and management of the site is still missing.

The peninsula of Iasos was designated in 1978 as a 'first degree archaeological site to be protected'. This classification of archaeological sites in Turkey varies from the first to the third degree, offering different measures of conservation and maintenance for each category. In the areas designated as first degree archaeological sites, only archaeological research and excavation or scientific interventions for the purpose of conservation are allowed; no

new constructions are permitted, with the exception of necessary service and security spaces (parking, ticket desk, lavatories etc)³. The designation of the first degree archaeological site does not cover the areas on the mainland at Iasos; the hill to the west of the Little Harbor was included under the third degree. In the areas classified as a third degree archaeological site, building activity is allowed under certain conditions, according to which soundings are required before any new construction can take place. Indeed, the present day village of Kıyıkışlacık grew on the mainland (fig. 1) on the western shore of the Little Harbor in the area previously occupied by a Hellenistic and Roman necropolis. It cannot be said that the construction activity within this third degree archaeological site had proceeded in accordance with the regulations, however the growth of the modern settlement helped to a certain extent for the conservation of the archaeological remains: some chamber tombs were incorporated into the dwelling units and thus saved from demolition⁴.

The factors threatening Iasos and its setting are common to many other archaeological and natural sites in Turkey. Among these are the difficulties relating to private ownership of the land and expropriation, inefficiency of the current legal regulations and impacts of conservation policies in general; growth of tourism, rapid urban 'development' and increasing building activity (with inadequate infrastructure), environmental and human factors, lack of local authorities' interest and control, and lack of a management plan. Now we can briefly look at some of these issues, starting with those which have priority in the case of Iasos.

¹ The Iasos excavations are conducted by Fede Berti, Director of the Archaeological Museum of Ferrara, while the survey of the hinterland is directed by Prof. Raffaella Pierobon from the University of Naples Federico II.

² These include the Byzantine tower on the Roman pier on the east side of the Little Harbor, the Roman tomb known as the "Clock Tower" due to its height, the Roman villa known as the House of the Mosaics due to its rich mosaic floors, the agora and the bouleuterion. The restoration of these buildings was largely financed by Fiat International S.p.A. See also F. BERTI, *Monumenti salvati. Scavi a Iasos di Caria*, in *Turchia Antica. Antik Türkiye*, Rome 1998, pp. 12-38, esp. 29-37.

³ Decision no. 658 of 5. 11. 1999 by Kültür ve Tabiat Varlıklarını Koruma Yüksek Kurulu (High Commission for the Preservation of Cultural and Natural Property).

⁴ The kitchen of the archaeological mission's house is placed in one of these tombs.

Private ownership of the land and expropriation

Private land ownership within the archaeological area is one of the most important problems at Iasos. At present, one can observe a network of excavated plots on the peninsula, concentrated mainly within and around the major monuments of the Hellenistic and Roman periods, while the rest of the land is cultivated with olive trees or used for grazing. Little is known about the shaping of the urban fabric as a whole and its components, and the site still awaits exploration. This lacuna is due to various factors among which private ownership of the land is important, and has precluded not only a complete topographical analysis, but also the presentation and management of the archaeological site up to this day. This is also the basic factor for the inefficiency of protection and maintenance measures. Governmental authorities do not generally intend to expropriate in the areas where excavations are carried out by a foreign archeological mission, since payment for land expropriation is generally dependent on the responsibility and willingness of that legation⁵. However, archaeological missions with limited financial means, such as that of Iasos, are not eager to assume this duty.

Tourists and visitors are required to walk through thick vegetation and jump over fences and similar obstacles on the steep and rocky peninsula of Iasos. As a result they usually content themselves by only visiting some of the major monuments, especially the agora which is located at the entrance of the site in the flat area to the north of the isthmus, and do not explore the rest of the archaeological area.

1 Agricultural activities and cattle-dealing in privately owned lands

To be added to the problem of private land ownership are the agricultural activities and cattle-dealing within the archaeological site. It is worth noting that the current legal regulations permit limited 'seasonal' agricultural activity in archaeological sites⁶. The villagers and farmers cultivate olive trees and leave their livestock to pasture in their own land but over the ruins. Cattle moving in and around the vestiges accelerate the rate of deterioration of the architectural structures as well as the *opus sectile* and

⁵ At Iasos the most recent expropriation, including a plot at the Big Harbor where a Middle Byzantine church is located, took place in 2001. Archaeological investigations at this church began in the summer of the same year.

⁶ Cf. E. MADRAN and N. ÖZGÖNÜL, *Kültürel ve Doğal Değerlerin Korunması*, Ankara 2005, p. 17; MADRAN and ÖZGÖNÜL 2005 (with principal bibliography concerning conservation in Turkey).

mosaic pavements that are not sufficiently protected against these factors (fig. 2).

Recently this year, part of the marble pavement of the Roman agora was damaged by a tractor brought there during the absence of the excavation team for transporting olives. Although the agora had already been expropriated, the area of the gate and the path leading to it is included within private land, and therefore it is very difficult to persuade landowners not to use this area or obstruct the passage of animals and vehicles. Neither can a gateway be placed to control access to the agora.

Some landowners have applied to the government for an exchange of their cultivated lands with those outside the archaeological zone, but their demand has been rejected. At present governmental authorities, either central or local, do not seem to be interested in the resolution of this problem which needs to be treated prudently. The villagers may show hostility towards the archaeological heritage when they feel they are prevented from using and profiting from their own land, since olive cultivation and cattle-dealing are the fundamental sources of income for the town, together with fishing.

2 Environmental factors

Human activities damage not only the individual buildings but also the environment. One of the environmental factors which needs particular attention concerning Iasos and the nearby coastal areas, is the misuse of fish farms. The unhygienic treatment of dead fish and waste thrown down in and around the surrounding hills results in environmental pollution, increasing every year by the growing number of fish farms, and creates a very bad smell. To be added to this is deforestation on large areas caused by new building activity.

The improvement and efficient implementation of legal regulations are necessary to cope with these factors, since there is no control system that can function efficiently if not based on strict legal measures. Instead of limiting the wide range of agricultural activities as seasonal or long term, it would be appropriate to extend the scope of current legal regulations so as to determine the degree of damage that any agricultural activity, as well as stock-breeding or fish production, whether seasonal or not, can cause on archaeological and natural heritage, and try to produce a wider range of decisions accordingly.

3 Growth of tourism

Iasos is recently becoming an attractive place for tourism due to the growing interest to the archaeological site and growth of the modern settlement of Güllük. The Iasian plain extends northwards, and is surrounded by the continuous hills of the Grion mountain range, and contact between the city and the inland settlements of Caria appears to have been very difficult since antiquity on account of these impassable hills. The same difficulty still exists to some extent since one must follow a twisting and tortuous road in order to reach the modern town of Milas. This road was not even covered with asphalt before 1997; the town was reached mainly by the sea, and consequently remained as a quiet fishers' village up to this day. Indeed this is another reason for the recent popularity of the town.

The growth of tourism brings about new problems concerning the maintenance of the archaeological heritage at Iasos not well protected against environmental and human factors. Tourism, whatever its scale and quality, requires building activity, as shown by the construction of a new holiday resort at Iasos, and may lead to irreversible damages in archaeological sites in the absence of a long-term management plan. Conservation planning should consider not only the protection and management of the archaeological site, but also that of the modern settlement in its immediate surroundings, and anticipate solutions for the improvement of the infrastructure and public services which, at Kiyıkışlacık, are far from satisfying the increasing demands of tourism⁷.

The process of conservation also requires the maintenance of the social structure and the way of life of the local people. Tourists generally come from different backgrounds, and the transformation of the local way of life so as to respond to the demands of tourism may bring the risk of degeneration of the existing social structure, as can be observed in many historic urban and coastal areas in Turkey and elsewhere. The scope of the conservation plan must be well determined before initiating the process of implementation. The first step is to establish the characteristics of the environment that is intended to be created and determine the relationships between the new environment and the existing social

⁷ As most of the streets in the village are not paved, a cloud of dust forms any time a car passes by. Casually formed open spaces are used for parking or rubbish. These spaces can be rearranged as squares or green areas and provided with appropriate urban furniture, such as street lamps, benches, and garbage containers. Indeed, it is not very difficult to transform these abandoned and anonymous spaces into the pleasant ones both for the local people and tourists.

structure in order to ensure the continuity of the latter. In this context, the role of tourism, which was considered, at least until a recent past, one of the main objectives of the conservation policies in Turkey, particularly in the coastal areas, must be well evaluated. A greater part of the local population involved in economic pressures related to the growth of tourism have been obliged to adapt to an artificial environment created for tourism and to new social and spatial conditions, renouncing their own needs. This is perhaps one of the most dangerous aspects that may result in a real social mutation and the loss of the cultural identity of a society⁸. It is of crucial importance to develop long-term national policies to encourage cultural tourism rather than to satisfy temporary trends or needs of a generic tourist market, as has usually been done in the past.

4. Increasing building activity

Another significant factor threatening Iasos and surrounding areas is the increasing number of new constructions, i.e., individual buildings or building groups used as summer dwellings, erected without respect to the topography and landscape. The construction of some of these buildings has started before the designation of the area as a first degree archaeological site and were blocked thereafter, but their skeletons still dominate the countryside. Masses of dwellings (figs. 3, 4), of which many are not even used, extend on the hills descending to the sea along the road connecting Iasos to Zeytinlikuyu on the west -another small village known for its Byzantine vestiges. The increasing growth of the built-up areas, occupying the entire hillsides with an incredible rapidity causing deforestation over large areas, is one of the most dangerous threats for the archaeological and natural heritage and their setting in Turkey. A striking example is the modern settlement of Güllük, just opposite the Gulf of Iasos.

At Iasos the worst incident occurred in the summer of 2005, with the construction of an extensive holiday resort in the area of the necropolis (fig. 5) which was not designated as an archaeological site to be protected. It is worth noting that innumerable olive trees have been cut down for this purpose. Neither an archeological exploration nor a sounding has been foreseen before starting the building activity, and no one has yet made any attempt to block this initiative.

The field research conducted in the last few years in the

⁸ U. SERIN, *La cittadella di Ankara dopo G. de Jerphanion. Problemi di conservazione e proposte per il recupero urbano*, in *Mélanges de l'École française de Rome. Moyen Âge*, T. 110/2 (1998), p. 969: SERIN 1998.

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hinterland of Iasos⁹, including the area of the necropolis that will soon be occupied by the holiday resort, demonstrates the presence of many archaeological vestiges and even entire rural settlement areas. A possible solution to impede this construction might be to apply to the Conservation Board of Muğla by presenting the results of this survey for the designation of the area as archaeological site to be protected. The local governmental institutions do not intend to undertake this initiative due to their own reasons, and leave it to the willingness of the foreign survey mission. In any case, it is a long bureaucratic process which, if it ever brings any positive results, would advance very slowly compared to the rapidity of building activity. Similar problems can be observed in other archaeological and natural heritage sites in Turkey, and no direct or immediate solution seems to be available in the present conditions to cope with the impacts of rapid 'development' and struggle with private interests.

The following issues concern the general conservation policy and inefficiency of legal regulations and their impact on cultural and natural heritage sites in Turkey. As for the current legal regulations, it is worth noting that these determine the type of interventions to be carried out in archaeological and natural heritage sites to be protected according to the 'importance' of these areas. This assessment, on the one hand, foresees a sort of congealment of archaeological sites considered the 'most valuable' or most important, without anticipating the necessary measures for their conservation, while on the other, welcomes new constructions and even entire settlement areas on the 'less important' archaeological sites. Furthermore, these regulations do not well define the scientific criteria to be used in determining the 'importance' of areas to be designated as the first, second or third degree archaeological site. In this context, the legal measures appear to be limited rather to establish 'what should not be done'¹⁰, but do not offer a wide range of solutions for the protection, improvement and management of these areas.

Besides, the masterplans prepared and applied before the 1990's considered historic and cultural properties as single entities, isolating them from their surroundings. These plans thus anticipated the solutions only for the plots on which the heritage to be protected is located, while new constructions were allowed in their immediate surroundings¹¹. The impacts of this attitude can be observed not only in historic urban areas but also in towns or villages established in the immediate vicinity of the archaeological sites, such as Iasos.

⁹ See *supra*, n. 1.

¹⁰ Cf. MADRAN and ÖZGÖNÜL 2005, p. 18.

¹¹ *Ibid.*, p. 48.

The lack of local authorities' interest and control has been another factor having negative effects on the process of conservation in Turkey. The legal regulations, at least until a very recent past, gave the main responsibility for the conservation of cultural and natural heritage to the central government through the Ministry of Culture and Tourism and other institutions, while the duty of local authorities was generally limited to putting into practice the decisions of the central government. In the field of conservation, as in any other domain, the fundamental step necessary for beneficial results is to adopt and take part in the process. It is not surprising that local governments are not enthusiastic on conservation matters in the present system in which they have little responsibility in the decision-making process¹².

It is of crucial importance to ensure the support and control of local authorities in the conservation process in order to minimize the factors threatening the setting of cultural and natural heritage sites and respond to the social and economic pressures and impacts of rapid development. The active participation of local authorities would also help to reduce the already heavy duties of the central government. At present, it is difficult to say that the decisions by the central government with regard to conservation can be implemented adequately, since the operation of planning decisions proceeds slowly, mostly due to the lack of coordination between the central and local authorities.

The recent changes in legal regulations (particularly the law 5226 approved in 14. 07. 2004)¹³, which anticipate modifications and improvement of the previous law 2863 of 1983 on the conservation of cultural and natural heritage, hopefully provides local governments with more authority. It is expected that this policy towards decentralization will facilitate the re-introduction of local control over the conservation process through government guarantees of access to the necessary resources, to accelerate the bureaucratic process and increase the efficiency of services, as well as to ensure the adoption of conservation practice by the local people.

To sum up, the basic step in determining appropriate responses for the protection and management of the archaeological site of Iasos is to resolve the expropriation

¹² *Ibid.*, pp. 129-133; also U. SERIN, *Public Participation in the Conservation of Historic Urban Environment*, Unpublished Master Thesis, Middle East Technical University, Ankara 1995.

¹³ Published in Official Gazette no. 25535 of 27.07.2004. See also *Son Yasal Düzenlemelerde Kültür ve Tabiat Varlıklarının Korunması ve Yerel Yönetimler El Kitabı* (eds. E. Madran and N. Özgönül), Ankara 2005.

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problem and obtain the support of local governmental institutions. The survey team intends to prepare a project for the presentation and management of the hinterland of Iasos, including a presentation of not only architectural structures and vestiges but also the quarries of the local Iasos marble (fig. 6). However, it is very difficult to apply such a project in the ancient city of Iasos itself, unless the expropriation problem could be resolved.

Any intervention in cultural and natural heritage and their settings inevitably encounters difficulties, in addition to the risk of bringing proposals previously anticipated by other scholars or specialists. An important factor in proceeding from theory to practice is whether the public administration is available to invest for the implementation of the proposals and decisions. In this context, the role of conservation from a cultural point of view, its scope and methods should be well determined. Conservation of archaeological and historic heritage necessitates above all believing in its cultural value so as to transmit it to those who have contact with that heritage. If necessary attention is not paid to this aspect, any measure or proposal will either remain in the archives or become the object of political or economical manipulations or be used to satisfy the needs of a generic tourist market¹⁴.

Abstract

This paper intends to analyze the factors threatening the preservation and maintenance of the archaeological site of Iasos and to develop proposals for the protection of the site and its monuments.

Iasos is situated in Caria on the western coast of Asia Minor, and includes remnants of settlements from the Early Bronze Age to the Late Byzantine period. The peninsula, on which lies the ancient city, is designated as an 'archaeological site to be protected', but such a classification does not include the rest of the settlement area in the surroundings on the mainland. As a result, the present day village of Kıyıkışlacık occupies the area on the mainland, which was once occupied by a Hellenistic and Roman necropolis.

There are many factors which severely threaten Iasos: problems related to private ownership of the land, difficulties of expropriation, environmental and human factors, increasing growth of the modern settlement on the archaeological site, growth of tourism, inadequate and inappropriate constructions and solutions of infrastructure, lack of local government's interest and control on the area, lack of a management plan etc.

The paper aims to identify and develop the appropriate administrative and management solutions to minimize the negative effects of these factors, and to be able to guarantee the protection of the archaeological heritage in a changing townscape, and to find out if and how a management plan can be applicable to Iasos. It is worth noting that such negative factors are almost the same in a major part of the archaeological sites in Turkey.

¹⁴ SERIN 1998, p. 965.

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Fig. 1. Iasos, Little Harbor and the present-day village of Kıyıkışlacık, as seen from the acropolis



Fig. 2. Iasos, acropolis basilica, fragments of floor mosaics

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Figs. 3-4. Masses of dwellings on the road from Iasos to Zeytinlikuyu



Fig. 5. Iasos, construction area of a new holiday resort on the back



Fig. 6. Quarries of Iasos marble