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Özdoğan, M 2013 Dilemma in the Archaeology of Large Scale Development Projects: A View from Turkey. *Papers from the Institute of Archaeology,* 23(1): 25, pp. 1-8, DOI: http://dx.doi.org/10.5334/pia.444

FORUM

# Dilemma in the Archaeology of Large Scale Development Projects: A View from Turkey

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This paper has been written as a response to J. J. Carver's leading paper to reflect the differences of the system governing cultural heritage in Turkey. It will demonstrate features of particular importance in the management of archaeological sites in Turkey. Besides providing a conspectus on the matters related to the management of archaeological heritage at risk, the particulars of on-going rescue operations that are being carried out to protect archaeological sites from the construction of the rail transportation system through Istanbul - better known as the Yenikapı project - will be discussed.

## A Preamble: Conspectus of the System Governing Heritage under Risk in Turkey

The problems which arise from conducting large-scale development projects in historic urban centres are difficult to resolve; the scale of problems encountered in installing systems, such as railroads or subways, which extend across historic and archaeological sites, often require multifarious approaches to reach optimal solutions. One such case is that of the Yenikapı project in Istanbul. However, before the particulars of the Yenikapı project can be discussed, the system governing the interface between development projects and archaeological heritage in Turkey must be considered.

In Turkey, all registered sites are under protection by law. Because Turkey has ratified most international conventions, including the Malta Convention, and has made numerous revisions in the legal system to comply with EU regulations, any intervention, including change of status, destruction, construction, management, and rescue excavation can only be undertaken with the consent of local councils on the preservation of cultural heritage (referred to henceforth as 'the Council'). Likewise, the Council may allow for the destruction of sites of minor importance only after assessing the results of investigations or rescue excavations. While this may sound relatively straightforward, there are so many loopholes and biases in the system that in spite of these policies, thousands of sites have been and are still being destroyed without any documentation (Özdoğan 2001; 2006b; 2010a; Özdoğan and Eres 2012).

### *1) Registration of an archaeological site*

For a site to be under legal protection it must be registered by the Council. An unregistered site does not officially exist. The total number of registered archaeological sites in Turkey is 10,976. Together with historic sites and centres the total number becomes 11,859. However, the number of published archaeological sites totals over a hundred thousand and some of the sites currently under excavation have not been registered. Therefore,

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there is not even a near-to complete cultural inventory of Turkey. Rather, those sites that have been registered are, in most areas, a random selection which may not include even the most important sites or monuments.

The registration of an archaeological site is a very complex and time-consuming process that is full of bureaucratic red tape. Neither report of recovery by an academic archaeological team, nor its publication will suffice. Rather, it must be meticulously re-documented by an employee of the Council and presented in a report to the Council to be considered within their agenda. If the proposed registration is approved, then it must be announced by the Council.

Almost all Councils are understaffed, and they are overloaded with problems such as the renovation or restoration of various civil architecture in urban centres. Moreover, as the main focus of the Councils is urban centres, they lack both vehicles to go to the field and large-scale maps that are necessary for properly documenting a site. Thus, the registration of archaeological sites, particularly sites of early periods, is usually not a priority.

Yet another reluctance of the Councils to increase the number of registered sites could be that the problems that may be encountered once an archaeological site has been placed under protection are far more complicated than those of civil architecture. During the planning stage of any development project, either private or governmental, the plan must receive a clearance from the Council that it will not be a threat to any site. Of course, if there are no registered sites, then this is not an issue and the construction may continue.

To exemplify what this implies, it is worth recalling the State Hydraulics Department's planning of the Birecik and Ilisu Dams, located on the Euphrates and the Tigris respectively. In this situation, the Council gave its consent for the construction, as at that time there was not a single registered site within the reservoir areas of the proposed dams. However, there had been numerous surveys specifically focusing on the areas to be submerged, which recorded hundreds of major sites, the results of which were immediately published and reported to the Antiquity Department. Among the sites within the reservoirs of these two dams were highly reputed sites such as Zeugma, Arsameia, and Hasankeyf, all major historic urban centres with monumental architectural remains that had been recognised in the literature since early in the 19th century (Ahunbay 1998; Başgelen 2003; Hermann 2000; Nardi and Schneider 2004).

Though there was no effort either to initiate rescue operations or to document the sites to be submerged, the repercussion in the press when a mosaic panel was accidentally recovered at Zeugma, activated public opinion both inside and outside of Turkey and called for immediate action, which consequently initiated rescue excavations. In spite of intensive efforts, only a small section of the site was exposed, and some mosaics removed. However, the rest of Zeugma, like most other sites in the region, was flooded. Nevertheless, what came to be known as the 'Zeugma Event' had positive consequences in organising salvage work at the reservoir area of the Kargamis and Ilisu dams (Özdoğan 2010b).

To conclude, no matter how well-meaning the legislation may be, drawbacks due to a lack of resources may often affect implementation. In this respect, the deficiency in site registration must be recognised as a major problem in the lack of cultural inventory.

### *2) Status and the composition of the Councils*

Since the late Ottoman period, there have been sporadic efforts to establish councils for the protection and management of cultural monuments and sites. However, the Antiquities Law of 1973 revolutionised the system by introducing the concept of site registration and the statutes of their protection. The Antiquity Law of 1983 further ameliorated the system when local councils were estab-

lished, the definition of cultural heritage was broadened and, more significantly, councils were to be composed exclusively of reputed academics, some elected by the Ministry and others appointed by universities for five year terms. The Council's authority included taking final decisions on all interventions of archaeological sites. Although the jurisdiction of the Councils covered all manner of cultural and natural assets from all over Turkey, the system faced problems related to historic buildings in Istanbul. Nevertheless, the number of sites under protection began increasing, though still at random and at a slow pace (Eres 2010).

Another important initiative was undertaken in 2000 by the Turkish Academy of Sciences to resolve the problem of the destruction of non-registered sites during development activities (Anonymous 2001; Başgelen 2003). To this end, a database program was developed to inventory not only archaeological sites but to incorporate geological, urban and rural architectural heritage (Yalçın 2006). The program was tested through pilot projects in selected districts and within two years, thousands of entries had been added to the inventory.

However, this project was hampered in 2002, as the central government felt that the increase in the number of sites under protection would be a drawback for large-scale development projects. As a result, the Councils were hampered. Firstly their composition began to include non-academics and the jurisdiction of their authorisation was limited. Councils then became targeted by the central government, and were pressured to accept development projects despite archaeological sites. Finally, the Councils lost their autonomy and they now consist of members appointed by the central government.

This has resulted in the Councils becoming instruments of validation for projects supported by the government agencies. Moreover, last year the government passed a decree invalidating cultural and natural protection areas in development projects that are labelled as important. Needless to say, site management and protection is facing a dilemma and at present, public upheaval remains as the only means to stop destruction.

### *3) Limitations of the centralist system*

In Turkey, the administrative system governing antiquities is centralised under the strict control of the Culture and Tourism Ministry. Even though local Councils, as noted above, have the ability to make decisions on the necessity of rescue operations, the decree to initiate rescue operation must be given by the Ministry. Any intervention to archaeological sites, including rescue operations, can only be carried out by museums or universities. However, permits to the latter must be ratified by the decree of the Council of Ministers, which is an extremely complex and time consuming bureaucratic process.

The present statute does not recognise contract archaeology by private bodies. Thus, all salvage work, except a few cases with universities, must be undertaken in conjunction with local museums. However, because museums are understaffed and may be overwhelmed by problems related to their own institutions, they may be reluctant to undertake large-scale rescue operations. In most cases, museums may be able to only spare one member who serves as an observer to supervise the work of the developer at an archaeological deposit.

Following the Zeugma Event some of the rescue operations of the museums have begun to employ freelance archaeologists, especially in cases where the press showed awareness of the antiquities under threat or when foreign contractor firms were sensitive to international liability of creditors such as the World Bank or the EU, which demand compliance with their regulations on saving cultural heritage. This has been the case at the Ilisu Dam and Baku-Ceyhan Pipeline Project salvage operations. Likewise, the Istanbul Archaeological Museum has been able to carry on the rescue operations at Yenikapi and at other parts of the

Istanbul Metro Project by employing freelance or professional archaeologists. Unfortunately, professional archaeology still has no definition under Turkish law; thus their employment is taking place on an ad hoc basis as a part of a floating system and must be covered by the developer.

#### *4) Magnitude in the scale of archaeological sites*

One of the major problems in running salvage operations in Turkey is the size and depth of archaeological sites. There is a great difference in the scale of archaeological sites between those in Turkey and those in most parts of Europe. In Turkey, as is the case in most parts of the Near East, archaeological sites are incomparably large in size and the depth of deposition can be tens of meters. The central mound of Samsat (ancient Samosata), one site flooded by the dams along the Euphrates, was 52 meters high and extended several kilometres. The depth of archaeological deposits may reach 32 meters in places within the historic centre of Istanbul. Thus, regulations devised in accordance with sites in Europe, such as the short times allocated for salvage operations, are totally inadequate for the sites in Turkey, where much more time is needed for any operation to be accomplished.

This problem became apparent during the salvage operations of the Keban, Karakaya and Atatürk Dams where the total number of recorded archaeological sites numbered 720. Excavations and salvage operations took place in 61 sites, though only in 39 sites did exposures reach 'acceptable' dimensions. In this respect, it is worth noting that about a decade ago there were 298 dams in Turkey. However, archaeological surveys (not excavations) had only been carried out in 25 of these dam reservoir areas. At present there are about a hundred dams under construction; when all are finished, an area comparable to 1/6 of all Belgium will be flooded by reservoirs (Özdoğan 2000; 2006b).

## A Case Study of the Yenikapı Project: Managing the Heritage along the Metro and Light Rail System of Istanbul

A mega-infrastructure project to solve the traffic problems of Istanbul had been initiated in 2004. The project, known officially as the Marmaray-Metro Project, envisaged the construction of a subway through the historic centre of Istanbul. This 76 km long railway system extends from one end of the metropolitan area of Istanbul to the other and the construction of a subway tunnel below the Bosporus will connect the Asian and European sides.

The first instalment of the project involved the covered metro cutting through the historic centre of Istanbul on both sides of the Golden Horn. The permit for construction was issued on the basis that the subway tunnel would be located deep in the bedrock, well below the archaeological deposits. In a way, this is true; nevertheless, damage occurred in some historic buildings due the nature of the underlying bedrock. However, the major problem was at places where shafts for ventilation, escape ways and stations, had to reach the surface.

As such, the Council conditioned that the shafts must be prospected in relation to geophysical properties. The work was auctioned to a professional firm with no previous archaeological experience. The geophysical survey presented to the Council indicated that in those specific areas where the shafts were to be dug, there was nothing to indicate the presence of substantial building remains. However, in the early stages of digging the shafts, the work had to stop as extremely massive buildings originating in the Byzantine Period were encountered, and the Istanbul Archaeology Museum had to be called in for rescue excavations - attempts to find a solution are still on-going (Kızıltan 2007, 2010, 2011).

The most ambiguous instalment of the above mentioned project is the transfer centre between the Marmaray and the Metro

projects where the metro and railway meet the tunnel crossing the Sea of Marmara to connect Asia and Europe. As this was a mega undertaking in the sense that efforts necessitated extensive quarrying, the location was selected carefully to be outside of the archaeological deposits of the historic centre. Quarrying for the terminal began in 2004 at the location of the old Byzantine harbour that had been filled up during the Medieval Period by the debris of various construction activities in the town and also by the alluvial deposits brought by the Bayrampaşa/Lykos Stream.

The Port of Theodosius, known by the name of its founder, was the largest commercial transport centre of Constantinople from the 4th to 11th centuries AD. The base of the ancient harbour is 6.5 metres below the present level of the sea. Here, the first problem encountered was the recovery of architectural remains of the Byzantine period that aligned the paleo-coastline of the old harbour: including parts of the oldest sea walls, a church, some harbour installations and wooden piers. So to protect these architectural remains, the project area of the transfer station was shifted further towards the sea and quarrying resumed.

As more archaeological objects originating from the Byzantine and Ottoman periods were found in the mixed debris of the harbour, the Istanbul Archaeological Museum was assigned to monitor quarrying works. Evidently, the decision to place the construction of the transfer centre at the location of the ancient harbour was made to avoid archaeological remains. However, the Council had not foreseen the possibility of encountering shipwrecks, something that should have been considered obvious when excavating in such a location. As quarrying reached the sand deposits below the fill from the last centuries, well preserved shipwrecks from the Byzantine period began to appear (Kocabaş 2008).

The first shipwreck encountered was almost intact with all its cargo, thus presenting a rather sensational picture, which was highly publicised both in the press and on television. The recovery of the shipwreck induced such a strong public response that the Istanbul Archaeological Museum was asked to begin regular rescue excavations at Yenikapı. Soon the area of archaeological work extended to cover 58,000 square metres. As the number of ships increased, expert teams were called in, both for precise documentation and also for removal and conservation.

During the first years it seemed as if the work at Yenikapı was manageable by the workforce of the Museum, as it seemed to be confined to monitoring the removal of mixed deposits and executing detailed work only in the randomly scattered shipwrecks. However, unpredicted recovery of *in situ* remains from the Early Neolithic Period covering the time period between 6400 BC and 4800 BC exposed below the sand deposits of the harbour at depths of between 6.5 and 9 meters necessitated a new and much more elaborate operational strategy. The remains of the Neolithic Period were astounding: wattle and daub remains of huts, numerous burials (some cremated), wooden tools and implements were among the finds.

The presence of wooden implements and other organic materials in the bog-like deposits inevitably required excavating at a much slower pace than before. Moreover, as the sand deposits were removed the type of finds diversified: well-preserved trees standing with their roots still in the ground and other botanical remains in excellent state of preservation were found. The Museum made the decision to ask for professional help. To keep the work going, the contractor agreed to employ the freelance archaeologist suggested by the Museum. Eventually, the development firms had to employ over 250 workmen and about 50 archaeologists and work was undertaken around the clock in shifts.

As work resumed, the site turned out to be much more important than previously predicted, not only for the realm of the archaeological findings, but for understanding past

environmental conditions as well. Geological deposits covering the Neolithic finds provided an exceptional archive for the change in sea levels, climatic fluctuations, past environmental conditions, and tectonic events. Other teams were called in and the project became a multidisciplinary mega-undertaking that lasted for almost 10 years.

As time passed, pressure on the Museum by political bodies to bring an end to rescue excavations accelerated. However, additional fortuitous and spectacular finds helped to ease this pressure being placed upon the museum (as had been in the case of the first shipwreck). For example, the recovery of Neolithic burials in an excellent state of preservation lying on wooden planks adorned with burial gifts quickly became highly publicised in the media and came to be known as the 'Earliest Inhabitant of Istanbul'. Almost simultaneously the picture drawn by natural scientists on past tectonic activities that took place in Istanbul also garnered media interest.

Nevertheless, political pressure soon resumed, and the Museum was blamed for delaying solutions to Istanbul's traffic problem for the sake of a few pottery sherds, when in reality the constructers were late in their schedule. The recovery of over a thousand footprints of the Neolithic period that came as a last moment surprise helped easing the pressure as they also became the focus of the public and the media. Nevertheless, in an overall assessment, the Museum very successfully orchestrated the balance between scientific requirements and the demands of the developers by monitoring the areas in which they were forced to leave and resume work. Thus, this mega-undertaking terminated with minimum loss of data and extensive knowledge.

Along with the work at the Yenikapı transfer centre, the museum had to conduct rescue excavations at a number of other units of the railed system project. Even though they were less publicised, they were almost as extensive and informative as Yenikapı, and included one at Üsküdar, at the Asian end of the tunnel, that dipped below the sea as in Yenikapı. That particular location, at the time a public square, was also thought to be an inlet filled in during later periods. Surprisingly, it turned out to be an important centre during the Byzantine period with a sizable church and numerous burials, though it sat on an old lagoon deposit contemporary with the basal marine deposit at Yenikapı.

Another operation area was located at Sirkeci for one of the stations. There, over 15 meters of archaeological deposit were encountered, providing the best chronological stratified deposit yet encountered at Istanbul. Currently, work is still continuing at the Early Neolithic site of Pendik that is cut by the railway. An 8 metre by 225 metre section along the entire extent of the site has been exposed, providing an unprecedented full cross-section of a 7$^{th}$ millennium settlement, together with over 60 Neolithic burials.

In an overall assessment, the work undertaken by the Istanbul Archaeological Museum, in spite of all odds, has been extremely successful considering the quality of work and scientific results, as well as for developing awareness in Istanbul for the early history of the town. The latter has been so perfectly monitored that the political authorities had to ease the pressure to have the Museum terminate rescue excavations at a premature stage. Moreover, it provided professional work to a large number of archaeologists, many of whom had been previously unemployed for almost a decade. Considering the scale of the undertaking, it has been the most successful archaeological operation in Turkey.

## Concluding Remarks

This paper has been composed with the intention of highlighting the interface between development projects and archaeological heritage in Turkey, and to draw a picture of the vulnerability of archaeological sites. In most of Europe, the early prehistory to present has been documented through thousands of excavations and at least the

basic outlines of the cultural sequence are well defined, studied, and documented. However, in countries such as Turkey, there are vast areas extending hundreds of kilometres where no archaeological excavation has ever taken place. While new excavations in Europe have been filling in details of known cultures, in Turkey they have been revealing the presence of unknown cultures, with some being significant enough to reconsider the entire history of Anatolia and even of the Near East.

As has been noted briefly, even though the number of excavated sites left to be inundated under dam reservoirs is minimal, what had been recovered had astounding consequences. It should also be considered that these have been achieved in spite of the shortage of funds, lack of field teams, lack of interest and bureaucratic obstructions. Considering the tremendous amount of new data recovered, one cannot avoid wondering what has been lost at sites or even in regions that have not been touched by archaeologists.

Likewise, in historic towns, cultural heritage projects have mainly focused on surface remains. In almost none of them has there been any systematic excavation to explore deeply buried cultural layers. However, these sites have been important centres through thousands of years. Despite being critically located at the meeting point of Asia and Europe, the bottle neck of the main sea-route connecting the Black Sea basin with the Mediterranean, and the capital of three world empires, with the exception of a small project in the 1920s, all knowledge of the subsurface archaeological deposits in Istanbul have been gained only through rescue excavations. The results of Yenikapı alone have clearly demonstrated how development cannot be reduced to the problems of management or job possibilities, but must consider the more critical loss of data that is essential for our understanding of the big picture. So, being aware of the on-going debate in some European countries (Demoule 2011; Wainwright 2000), the priority in countries such as Turkey must be to excavate as much as possible before all is lost.

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**How to cite this article**: Özdoğan, M 2013 Dilemma in the Archaeology of Large Scale Development Projects: A View from Turkey. *Papers from the Institute of Archaeology,* 23(1): 25, pp. 1-8, DOI: http://dx.doi.org/10.5334/pia.444

**Published:** 9 October 2013