

THE CULTURAL RESOURCES MANAGEMENT PROJECT IN JORDAN CULTURAL RESOURCE IMPACT ASSESSMENTS AND CRM PROJECTS IN 1992-1993

by

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Introduction

The preparation of Cultural Resource Impact Assessments has been one of the activities of the CRM project in the past two years. These assessments are an important tool in the definition of threats which may occur to known and previously unrecorded archaeological sites as a result of construction activities. In the article by Palumbo *et al.* in this volume, on the history of the CRM program in Jordan, there is a more detailed explanation of how coordination with governmental development agencies evolved in such a way that the preparation of Cultural Resource Impact Assessments is now becoming a routine. Here it is sufficient to say that each time we are informed of a public project being in the design or pre-feasibility study phase, we conduct a preliminary visit to the project area, after research is conducted on the literature for the presence of archaeological sites (but now we are also helped by JADIS, a computerized database which can be searched for the presence of sites within the limits of given coordinates). After the visit, a Preliminary Cultural Resources Impact Assessment is issued, which informs the development agency about the presence or absence of archaeological sites within or in the vicinity of the project area. The assessment also includes an evaluation of impact on sites and suggestions for their protection (such as possible road re-alignments or introduction of green areas, and so on), or for their rescue excavation before construction begins at the site. Very often, an archaeological survey of the project area is required in order to produce a Final Cultural Resources Impact Assessment. This kind of

intensive survey has been conducted for several projects (see the reports by Bisheh *et al.* and by Waheeb; see also below) and often resulted in the discovery of a large number of previously unrecorded sites. Thanks to the coordination achieved with the development agencies, these reports are taken into consideration during the feasibility study phase, and the possibility of accidental destruction of archaeological sites is greatly reduced. The advantage is also that archaeological investigation can be conducted before construction, so that there is more time and less pressure on the archaeologists to conduct their rescue projects.

We are now studying the possibility of compiling a set of guidelines for the preparation of Cultural Resources Impact assessments, which will take into consideration not only the relative archaeological importance of the sites found, but also other kind of considerations (environmental, social, economic) so that each site can be automatically evaluated for its overall importance, and quicker decisions can be made about the type of intervention to be conducted, from total preservation to total destruction. An example of Cultural Resource Impact assessment is attached. The main field activities of the CRM project in 1992-1993 are detailed here:

Salvage Projects

Salvage projects were part of the routine activity of the CRM project. While the preference is to anticipate the necessity for salvage, we are obviously committed to the necessity of conducting archaeological excavations even when the site is already largely damaged as a result of construction

activities. Besides the salvage excavations conducted by Mohammed Waheeb at the 'Umeiri cemetery (report by Waheeb and Palumbo) another salvage project was conducted by Mohammed Waheeb at the EB IV and MB II cemetery of Tell ez-Zaytuna, in Wadi Kufrenje. A series of other salvage projects were conducted by the Department of Antiquities of Jordan (Şuweifiyeh, Khilda, etc.), but they were not directly related to the activities of the CRM project.

Rescue Projects

A series of field visits were conducted to the location of 13 new projects of the Housing and Urban Development Corporation. This governmental body is already aware of the importance of protecting cultural heritage sites from unnecessary damage as a result of construction activities, and is putting special care in the selection of site locations for their new projects. As a matter of fact, no special concerns were issued in relation to these projects, with the exception of Umm Qeis, where a series of rock-cut installations related to ancient agricultural activities were found in the project area. This is a situation similar to that already found at Beit Ras, where a rescue project was conducted in order to record these rock-cut features and some tombs.

A preliminary assessment has also been made for the road alignment between Irbid and North Shuneh, which will affect a few sites. Rescue excavations will be conducted at Qam (P.g. coordinates 218.4E 221.3N), an extensive Roman, Byzantine, and Mamluk site south of the modern village of Qam, and an intensive survey will be conducted in order to locate other sites within the right of way of the new road. The rescue surveys of the Ras an-Naqab - Aqaba road and of the Tafileh - Ghor Feifeh roads are presented in detail in this volume (Bisheh *et al.*; Waheeb).

In coordination with the Ministry of Water and Irrigation, visits and surveys were also conducted at the location of three new dam sites: Karameh, Wadi Wala, and Wadi Mujib. While the visits to Karameh and Wadi Wala failed to reveal any major archaeological presence, the situation in Wadi Mujib is much more complex and will require an intensive salvage effort in order to reduce the impact on a series of archaeological sites. They range in date from the Palaeolithic to the Ottoman period. One of the most important is certainly es-Sfei, a 12-hectare PPNB village with well-preserved structural remains at P.g. coordinates 228.4E 094.3N. This site is associated with a small tell (Tell es-Sfei, P.g. 228.3E 094.1N) with remains from the Pre-pottery Neolithic B, Chalcolithic, Early Bronze Age, Iron Age, and the Hellenistic periods.

All these activities show the need for an even better organized system of intensive survey which can provide immediate information on the presence of cultural heritage sites in areas of possible construction. This information, properly evaluated, can allow the Department of Antiquities to coordinate with the development agency the appropriate type of intervention necessary for these sites. The understanding is that while it is not always possible to save archaeological sites from destruction, their study and recording is an important contribution of the Department of Antiquities in the study of the ancient heritage of Jordan, and of the continuing effort to actively contribute in the development of Jordanian society.

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Appendix: Preliminary Cultural Resources Impact Assessment on the construction of a pipeline between Wadi es-Sir and 'Iraq el-Amir.

By Dr. Gaetano Palumbo, ACOR, and Mr. Abdul Sami' Abu Dayyeh, Department of Antiquities. May 22, 1992.

Introduction

The Ministry of Water and Irrigation is constructing a sewage pipeline between Wadi es-Sir and a new water treatment plant, also under construction approximately 4 kilometers south of 'Iraq el-Amir. The pipeline requires a trench 1.5 to 2 meters wide, mostly along or below the existing road linking Wadi es-Sir to 'Iraq el-Amir. After the modern village of 'Iraq el-Amir, a service road approximately 10 meters wide is being opened. This requires extensive bulldozing of the hill slopes to the west and to the south of 'Iraq el-Amir palace.

Assessment

A visit to the site was conducted on May 15, 1993, by the CRM team accompanied by Eng. Kamal al-Suri, of the contracting company Hussein Ta'a. The pipeline alignment was followed entirely. There are no major threats to cultural heritage sites, with the exceptions of 1) the projected demolition of an aqueduct carrying water to an abandoned water mill at Palestine grid coordinates 225.2 149.4, 2) of the pipeline passing in the vicinity (less than 10 meters) from the Byzantine cave church of Mugharat el-Başşah (Palestine grid coordinates 223.3 149.3), and 3) of the visual impact given by the bulldozing being conducted on the hill slopes to the west of 'Iraq el-Amir.

Recommendations

1. The destruction of the ancient aqueduct related to the water mill at Palestine grid coordinates 225.2 149.4 can be avoided by realigning the pipeline a few meters to the south, in order to dig the trench below one of the arches of the aqueduct. This idea has already been expressed to Eng. al-Suri, who sees it feasible. The excavation should be conducted by hand under and in the vicinity of the arch, since the stones of the aqueduct might collapse with the vibrations caused by a bulldozer or other mechanical equipment.
2. The contractor should be aware of the presence of important archaeological remains at Mugharat el-Başşah, a site under Department of Antiquities protection, where also an Islamic cemetery is present (Palestine grid coordinates 223.3 149.3). Here work should be conducted only along the existing road. Any widening of the road section or movement of machines outside of the right of way of the pipeline should be avoided.
3. The contractor should inform the Department of Antiquities when excavation work will be conducted along the road near the modern village of 'Iraq el-Amir and below the cliff where some caves are visible. A Department of Antiquities inspector should be present when the bulldozing will take place.
4. The debris resulting from the excavation of the access road and pipeline trench on the hill slopes to the west of Iraq el-Amir palace should be removed and not dumped on the side of the road. This precaution will reduce the visual impact from the palace itself, caused by the opening of the new road.
5. If any archaeological remains or ancient walls are located as a result of excavation or bulldozing, the contractor should inform immediately the Department of Antiquities. An inspector from the Department will immediately visit the site and will assess the importance of the remains found, either allowing continuation of the work, or asking for a short interruption of construction work in order to allow the salvage excavation of the remains found.