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Cultural Resources Management and National Inventory of Archaeological and Historic Sites: The Jordanian Experience

Introduction

The Cultural Resources Management program of the American Center of Oriental Research in 'Ammān in cooperation with the Department of Antiquities of Jordan is being implemented since 1987.

The main purpose of this USAID financed program is to assist the Department of Antiquities in developing an independent system of coordination with governmental agencies responsible for development projects, and to start a process by which cultural resources will be given recognition in the earliest phases of a new construction design. Until very recently, in fact, the Department of Antiquities was usually informed of a new construction project only when bulldozers had already damaged a site, often forcing the Department to begin desperate salvage excavations. Thanks to the Cultural Resources Management Project, information flow is now at the feasibility or tender bidding stage, when project design is either almost or totally complete. This leaves only a short period of time to assess the impact of a new construction on the archaeological sites of an area, but at least it is possible now to speak about "rescue" more than "salvage" archaeology being conducted in Jordan.

The evolution from an "emergency" to a rescue oriented approach is displayed in TABLE 1. It is clear that the maximum effort is now concentrating on two aspects of coordination, that is, creation of information sources and mechanisms for sharing that information.

Cultural Resource Management Program Rationale

The Jordan Antiquities Database and Information System (JADIS) program is one of the cornerstones of the present CRM project. The ultimate goal is to enter into a computerized database coded information about *all* known archaeological sites in Jordan, allowing quick and effective monitoring of sites under threat of destruction. The JADIS program included the design of the system,

the development of the database, the design of the card-file to be used for data entry, and the training of six Department of Antiquities employees in card compilation and use of the database system.¹ This database system fills a major gap in the Department of Antiquities management of its archives: a computerized inventory which can provide a wide range of different site lists (by name, by geographic coordinate, by period of use, by level of preservation, and so on), all available at a key-stroke and within a few minutes. When complete, this database will have met one of the requirements of the 1988 Antiquities Law (art. 4), and of the 1972 UNESCO convention (articles 29-31) on the Protection of the Cultural and Natural Heritage, that is, a complete inventory of the known archaeological heritage. It will also ease the process of monitoring areas under construction, since by entering any area's coordinates, all of the archaeological sites within those coordinates will be displayed, greatly reducing the chances of accidental destruction.

The creation of information sources has been accompanied by the organization of information-sharing mechanisms. To speed the process of coordination between CRM, Department of Antiquities, and development agencies, a network of liaison officers was created in various ministries and departments. The JADIS database will allow Department of Antiquities officials and local inspectors to effectively monitor archaeological sites in areas under development. At this moment, protection of cultural resources is ensured on a case-by-case basis by early coordination between the various development agencies and the CRM team, but JADIS will soon provide a more effective management tool.

The following examples illustrate the level of cooperation attained under the current program, but they also reflect the need to improve coordination by means of more formal procedures.

Design phase intervention is an important element of

¹ After this paper was presented at the 1992 Irbid conference, training was expanded to include five more employees. Presently (1994) the JADIS program is directed by Khawla Qussous at the Registration Section of the De-

partment of Antiquities and is conducted by Wafa Assaf, Ahmed Ajaj, Hanan Azar, Qamar Fakhoury, Samar el-Hababbeh, Salam Hajjawi, Sahar Nsour, Fadwa Shamaileh, Ahmed el-Shami and Jihad Shobaki.

Table 1.

EVOLUTION OF COORDINATION DURING THE CRM PROJECT			
PHASES:	PAST:	PRESENT:	IN PROGRESS:
Design	No consideration of possible damage to cultural resources. No rescue work by DAJ.	CRM requests information on new projects, releases preliminary impact assessments.	Development agency offers the DAJ information about new projects. The DAJ releases preliminary impact assessments.
Feasibility study	No consideration of possible damage to cultural resources. No rescue work by DAJ.	CRM negotiates changes to the project (if needed), releases final impact assessments.	DAJ conducts intensive survey. Development agency and CRM/DAJ coordinate mitigation plans on the basis of final impact assessments.
Tender Bidding	No consideration of possible damage to cultural resources. No rescue work by DAJ.	CRM negotiates provisional sums for rescue work. CRM requests the addition into the construction contract of recommendations for cultural resource protection.	Development agency automatically provides sums for rescue excavations on the basis of CRM/DAJ report. Recommendations for the protection of cultural heritage are automatically included in construction contracts.
Construction	No consideration of possible damage to cultural resources. Contractor legally required to inform DAJ of remains uncovered during construction. Emergency work by DAJ.	DAJ conducts rescue excavations. Emergency excavations still needed. CRM coordinates information flow among contractor, development agency, and DAJ.	DAJ conducts rescue excavations. No need for emergency excavations during major construction projects. CRM/DAJ, contractor, and development agencies exchange information on work progress.

the CRM strategy in order to minimize the necessity for rescue or salvage archaeology. Design phase planning involves a detailed study of new projects and the preparation of feasible alternative locations for projects. Preliminary surveys and excavations, whether conducted directly by the CRM program, or coordinated by it and conducted by the Department of Antiquities or by the Universities, are important in establishing patterns of pre-development cultural resource strategy and in demonstrating the importance of early coordination to avoid both damage to cultural resources and costly delays to construction projects. The preparation of Cultural Resources Impact Assessments also creates a model for future activities involving pre-development procedures. The standardization of these reports will be of great help, as a cultural resources component will have to be included in Environmental Impact Reports required prior to construction, as provided for by the forthcoming Environmental Law.

While it is preferable to start coordination at the design phase, it is still possible to limit the damage to cultural resources by intervening at the Feasibility Study level. During this phase CRM personnel are now either negotiating changes to projects, where feasible, or are releasing final Cultural Resources Impact Assessments to be used as a basis to negotiate provisional sums for rescue work.

Awareness of sites endangered by a construction project at this late phase, while not an uncommon occurrence, compels the Department of Antiquities to organize emergency surveys or excavations. A project at this stage of development can be modified only at a great cost, and often results in construction delays. Theoretically, it is still possible to negotiate provisional sums for rescue archaeological work, but this possibility is remote.

CRM personnel were able to negotiate successfully six projects, all of them followed from the design phase. This shows that only coordination at the earliest stage of a project guarantees that funds will be provided to the Department of Antiquities for any work that might be necessary thereafter.

Two types of interventions may occur at the construction phase: (1) rescue, based on planned activities resulting from early coordination with the development agencies, and (2) emergency excavations.

Rescue excavations (i.e. planned interventions) have been conducted by the Department of Antiquities and Yarmouk University with provisional sums negotiated by CRM in the Tender Bidding phase of each project. CRM also provided coordination to avoid conflicts between the contractors and the archaeologists.

Emergency excavations (i.e. unplanned interventions) have normally been the only possibility open to the De-

partment of Antiquities to save, usually only for the record, what was left of an archaeological site damaged during construction. The creation of coordination procedures by the CRM project has as its principal aim the avoidance of unplanned interventions at the construction phase.

The emergency excavation of the Roman fort on the bid-Jarash road can be considered a hold-over from past procedures and therefore a failure (Palumbo *et al.* 1993: 89-117). On the other hand the "sacrifice" of this impressive monument (FIGS. 1-2) and the desperate efforts to complete the excavation, as well as the costs and delays caused by the operation, made an impression on the development agencies. This may have resulted in an awareness of the necessity for planning at the earliest phases of project design.

The creation of a network of liaison officers and the basic information sharing advocated by CRM personnel are not sufficient to meet the needs of an integrated system in which *all* governmental departments are obliged to exchange information and obtain Department of Antiquities release permits before construction. The CRM project contributed to the development of a routinized system of information sharing, and to the study of appropriate modifications of existing laws. In this framework, an opportunity is offered by the new Environmental Law, which takes into consideration a series of recommendations presented only a few months ago in the National Environmental Strategy for Jordan. If approved, this law will provide the basis for formal coordination and information flow between the development agencies and the Department of Antiquities.

Genesis and Applications of the JADIS Program

In 1990 the Cultural Resources Management Project set as one of its priorities the study and the production of a computerized system to record the archaeological sites of Jordan, mainly known through published reports or unpublished information. The objectives of this database were multiple: to organize the existing information into a flexible system that would allow different types of data search and analysis, to produce site lists based on map grid coordinates for quick reference and to facilitate the exchange of information between Department of Antiquities and development agencies on the location of archaeological sites.

This is a brief survey of the problems encountered during the creation of the JADIS system.

. No recording system: the Department of Antiquities has very large archives, but they are not computerized. The only recording system was some index files of sites in alphabetical order. An important project started almost ten years ago, a cooperative effort of Prof. Denyse Homès-Fredericq of the Musées Royaux d'Art et d'His-

toire in Bruxelles and Prof Basil. Hennessy of the University of Sidney. The project has produced three volumes to date, the first being a list of references (cross-indexed by site), and the second and third containing short reports with similar formats for all the archaeological projects in the field at the time the volumes were published (Homès-Fredericq and Hennessy 1986; 1989). Besides these publications, the *Annual of the Department of Antiquities of Jordan* (ADAJ) is to be mentioned, but until today a general inventory of Jordan's archaeological and historic heritage was missing.

2. Uneven method to record site map coordinates: Palestine grid and UTM system are commonly used, but are not compatible with each other. It is to be considered that Palestine grid is preferred on the latest 1:25,000, and UTM grid on the 1:50,000 (and most complete) map sets.

3. Size of the database: to keep the databases relatively small, a decision was made to encode most of the information and use the least amount of free-text. This obviously limits the possibilities of describing sites; on the other hand a standard set of codes greatly reduces chances of misinterpretation that may arise when free-text descriptions are used.

4. Amount and type of information to record: recording of information was limited to map and topographic location, period and type of use, site condition and threats,



1. "Tall Fayşal": the Roman fort salvage excavations during road construction. View from south.



2. "Tall Fayşal": bulldozing operations besides the southeastern wall.

bibliographical references. It was felt that more information (owner, soil type, present land use, distance from water, etc.) would have considerably slowed down the project of data compilation. This data, in the future, can be obtained by linking JADIS to a GIS system.

In Palumbo (1993) this and other technical problems are analyzed in detail. Here it is sufficient to say that data collection and encoding is made on a physical card, which is then copied into the computer database (FIGS. 3-4). An example of output is shown in FIGS. 5-6.

A large part of the data collected has CRM significance: site condition, disturbances, inventory rating, type and level of threat of destruction. All these variables have useful applications in organizing lists or maps including sites under threat, in understanding the most common causes of disturbance affecting archaeological sites, and — in general — in providing a database for the creation of what could be defined a “*map of threatened heritage*” in the country. We will later see how this map can be integrated in the archaeological policy of the Department of Antiquities.

The computer program itself is user friendly, and allows a smooth data entry and a quick and effective search using a large number of “filters”.² The software is able to search and sort the information according to parameters set by the user (e.g. by period, in alphabetical order, according to the state of preservation, etc.), but the most common search is made by coordinates, which gives the presence of archaeological sites in a given area.

Further steps this project can take are field checking and GIS. Field checking will start as soon as is feasible, especially for those sites with the least or outdated information, or with inaccurate coordinates. A team of archaeologists will re-visit those sites, completing or updating the required information, and locating the sites with greater accuracy than in the past, possibly using GPS technology.

As regards GIS we are thinking of integrating JADIS into digitized or scanned maps. The objective is to obtain a database which would allow the monitoring of areas with sites under threat of destruction, following “step-by-step” the development of construction projects and the expansion of agricultural areas across the country. The output will be a “*map of threatened heritage*”, to be updated periodically when more information on archaeological and historic sites and on the expansion of development projects is available. This map could be made available to the main agencies responsible for development in Jordan, reducing the risk of inadvertent construction projects over archaeological sites — still a common occurrence today — thus reducing the need for either rescue or salvage projects concurrent with con-

struction.

Conclusion

The CRM program and its main tool, JADIS, can be considered a successful experiment in site management and preservation. Further steps towards the adoption of this project as a Department of Antiquities operation will include the establishment of standard procedures of coordination with development agencies, the complete catalogue of the existing information, the refinement of the database using GPS technology, in order to find the exact location of archaeological sites, and the possibility of integrating the database into a Geographic Information System program that can allow the output of detailed maps and the production of a “*map of threatened heritage*” containing all the information for future construction work and for forecasting the expansion of urban and agricultural areas in the country. This map may be the best tool available to the Department of Antiquities for the management of the archaeological heritage, and may constitute the basis for its policy of site protection and preservation in the coming years. The integration of the JADIS database system into the network of already existing GIS applications in Jordan will contribute to the ability of those departments to positively impact cultural environment preservation.

From a strictly archaeological point of view, JADIS can also be useful to the Department of Antiquities to check on the expansion of the archaeological activities in the country, and to implement a policy of emergency archaeological surveys to be conducted in areas where updated information is missing. In those cases, predictive models on the location of archaeological sites, which could be derived from GIS applications, might be used to plan surveys more effectively and to complete the total survey of Jordan at reduced costs and within a few years.

References

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 — 1989. *Archaeology of Jordan. II Survey and Sites*. Leuven: Peeters.
 Palumbo, G. 1993. JADIS (Jordan Antiquities Database and Information System): an Example of National Archaeological Inventory and GIS Applications. Pp. 183-188 in J. Andresen, T. Madsen and I. Scollar (eds), *Computing the Past: Computer Applications and Quantitative Methods in Archaeology - CAA 92*. Aarhus: Aarhus University Press.
 Palumbo, G., 'Amr, K., Musa, A. and Rasson-Seigne, M. 1993. Salvage Excavations at “Tell Faysal”, Jarash. *ADAJ* 37: 89-117.

² The software was prepared, under specification designed by Dr. Gaetano Palumbo, by Linda Faris and Nadine Mushahwar of CDG Management and

Associates, Amman. The software is distributed by CDG Management and Associates, P.O. Box 925740, Amman.

JADIS Jordan Antiquities Database and Information System SITE FORM			
1. Site Number: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = <input type="text"/> <input type="text"/>		2. Site name(s): _____	
3. UTM Zone: <input type="text"/> <input type="text"/>		4. UTM Coords. East: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
6. UTM Calculated: <input type="checkbox"/>		7. UTM Cited: <input type="checkbox"/>	
10. Palestine grid East: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = <input type="text"/> <input type="text"/>		11. Palestine grid North: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = <input type="text"/> <input type="text"/>	
12. K737 Map no.: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = <input type="text"/> <input type="text"/>		13. Other Map number: _____	
14. A/r photo series: _____		15. A/r photo number: _____	
17. Site size (m2): <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		18. Elevation (m): + / - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
19. Type of site: _____			
20. Period and type of use:			
Unspec. Paleolithic _____	EB III _____	Unspec. Byzantine _____	_____
Lower Paleolithic _____	EB IV (EB-MB) _____	Early Byzantine _____	_____
Middle Paleolithic _____	Unspec. MB _____	Late Byzantine _____	_____
Upper Paleolithic _____	MB I (IIA) _____	Umayyad _____	_____
Unspec. Epipaleolithic _____	MB II/III (IIB/C) _____	Unspec. Abbasid/Fatimid _____	_____
Kebaran _____	Unspec. LB _____	Abbasid _____	_____
Natufian _____	LB I _____	Fatimid _____	_____
Unspec. PPN _____	LB IIa/b _____	Crusader _____	_____
PPNA _____	Unspec. Iron Age _____	Unspec. Ayyubid/Mamluk _____	_____
PPNB _____	Iron I _____	Ayyubid _____	_____
PPNC _____	Iron IIa/b _____	Mamluk _____	_____
Unspec. PN _____	Iron IIc _____	Unspec. Ottoman _____	_____
PNA/Yarmoukian _____	Persian (Iron III) _____	Early Ottoman _____	_____
PNB _____	Hellenistic _____	Late Ottoman _____	_____
Unspec. Chalcolithic _____	Unspec. Nabataean _____	Unspec. Islamic _____	_____
Early Chalcolithic _____	Early Nabataean _____	Modern _____	_____
Late Chalcolithic _____	Middle Nabataean _____	Unspec. flints _____	_____
Unspec. EB _____	Late Nabataean _____	Unspec. pottery _____	_____
EB I _____	Unspec. Roman _____	Unspec. structure _____	_____
Unspec. EB II/III _____	Early Roman _____	Inscription _____	_____
EB II _____	Late Roman _____	_____	_____
21. Topographic location of site: <input type="text"/> <input type="text"/> / _____			
22. Site condition: <input type="checkbox"/>		23. Disturbance: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
25. Type and level of threat of destruction by:		24. Inventory rating: <input type="checkbox"/>	
Construction: <input type="checkbox"/>	Dam: <input type="checkbox"/>	Quarry: <input type="checkbox"/>	_____
Road work: <input type="checkbox"/>	Cultivation: <input type="checkbox"/>	Other: <input type="checkbox"/>	_____
Development: <input type="checkbox"/>	Erosion: <input type="checkbox"/>	_____	_____
26. Bibliographical references:			
27. Visited by: _____		28. Date visited: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
29. Encoded by: _____		30. Date encoded: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
31. Notes:			

. Front page of the JADIS form, used to encode site information.

JADIS Jordan Antiquities Database and Information System									
CODES SUMMARY:									
Codes for fields 19 and 20 (Type of site; Period and type of use):									
General archaeological Information: 01-Shear / flint scatter 02-as above (uncertain presence) 03-as above (main presence) 04-as above (one-period site) 05-Material culture remains found with no structures 06-Multi-period stratified site (tell or khirbat)		Habitation, military sites: 11-Village site (no fortifications) 12-Fortified settlement 13-Possibly fortified settlement 14-Fortress 15-Castle 16-Castrum 17-Tower 18-Ruin 19-Palace 20-Caravanserai 21-Nomadic camp 22-Cave / shelter 23-Hermitage		Cultic structures: 31-Temple 32-Church / chapel 33-Mosque 34-Monastery 35-Sanctuary / High place 36-Stone circle 37-Menhir		Agricultural structures: 41-Hamlet/Farmstead 42-Villa 43-Mill 44-Agricultural terrace 45-Oil press 46-Wine press 47-Threshing floor 48-Other structures		Other structures: 51-Aqueduct / water channel 52-Cistern 53-Birket / water reservoir 54-Dam / barrage 55-Omah 56-Baths 57-Bridge 58-Road 59-Milestone 60-Kite 61-"Jellyfish" structure 62-Animal pen 63-Hut circle 64-Storage facility / silo 65-Cairn	
Funerary structures: 81-Cemetery 82-Rock-cut shaft tomb 83-R.-c. multi-chambered tomb 84-Burial in natural cave		85-Burial cave (arcosolium type) 86-Colombarium 87-Hypogaeum 88-Grave 89-Burial cairn / tumulus 90-Dolmen		91-Sub-floor burial 92-Jar burial 93-Pit burial 94-Mausoleum 95-Burial in church 96-Other tomb		Industrial / manufacturing sites: 71-Quarry 72-Mine 73-Smelting site / slag heap 74-Furnace 75-Kiln 76-Flint knapping site 77-Other industrial installations			
Codes for field 21 (Topographic location):									
01-Alluvial fan 02-Alluvial Plain 03-Valley bottom		04-Wadi terrace 05-Cutbank 06-Gully		11-Hilltop 12-Ridge 13-High spur		14-Low spur 15-Saddle 16-Plateau			
				21-Slope 22-Upper slope 23-Middle slope 24-Lower slope		25-Terrace on hill side 26-Cliff top 27-Cliff face 28-Cliff bottom			
Codes for field 22 (Site condition):									
1-Excellent 2-Good 3-Fair 4-Poor		5-Inundated 6-Destroyed 0-No information							
Codes for field 23 (Disturbance):									
00-No information 99-No disturbances 01-Archaeological excavation 02-Clandestine excavation / vandalism 03-Deflation 04-Erosion		11-Agricultural use (general) 12-Plowing 13-Deep plowing 14-Grazing 15-Terracing 16-Reforestation 17-Fruit / olive grove		21-Bulldozing 22-Trench (pipeline, sewage, aqueduct) 23-Trench (canals) 24-Road work 25-Quarry 26-Mining 27-Construction 31-Structural decay		Codes for field 24 (Inventory rating): 0-Site destroyed: no excavation possible 1-Site damaged or very disturbed: excavation not advisable 2-Excavation not essential: low priority 3-Excavation recommended: medium priority 4-Excavation imperative: high priority 5-Preservation recommended 6-Preservation imperative 9-Site already under protection			
Codes for field 25 (Type and level of threat of destruction):									
N-No risk		L-Low risk		M-Medium risk		H-High risk			

جداول رموز رموز وصف مواقع الآثار الأثرية ملخص رموز مواقع									
كودات رقم ٢٠، ١٩ (نوع الموقع ، الفترة ، طبيعة الاستعمال)									
مواقع إثنوغرافية صناعية ٧١- محجر ٧٢- منجم ٧٣- موقع صنوبر معادن ٧٤- ترويض النمل ٧٥- موقع ضغط صخران ٧٦- إشارات صناعية		إشارات أخرى ١- قناة ماء فوق جسر ٢- خزان ماء ٣- بركة ٤- سد ٥- قناة ٦- حمامات ٧- جسر ٨- طريق ٩- حجر تشييد المسألة في الطريق ١٠- جدران تشييد المسألة بينها الحديد ١١- أكواخ دائرية مبنية بشكل دائري ١٢- شمن سد ١٣- حفر دائري ١٤- مائذن ، صوامع تشييد ١٥- كوم حجارة		إشارات زراعية ١١- مزرعة ١٢- بيت زراعي ١٣- مظلة ١٤- مبنية زراعية ١٥- منصرة زيت ١٦- منصرة خش ، نبيذ ١٧- أرضية فرش الفصح ١٨- إشارات زراعية أخرى		إشارات بولية ٢١- حديد ٢٢- كنيسة ٢٣- مسجد ٢٤- قبر ٢٥- حرم ، مكان مقدس ٢٦- دائرة حجرية ، شعوب ٢٧- نصب حجري		مطبات الأثرية عامة ١- شارع فخار أو صوان مباشرة ٢- (السائق) يوجد غير مؤكد ٣- (السائق) يوجد مؤكد ٤- (السائق) فترة واحدة ٥- مطبات أثرية بدون بقايا صناعية ٦- مواقع في طبقات متعددة ومتتالية (تلال أو خربة) ١١- شارع سارني، صومع لوزال ١٢- مطبوع بولي ١٣- كرف / ملجأ ١٤- صومعة ١٥- مطيرة كرف ١٦- كرف/بازار ١٧- مطبوع جازيم ١٨- قبر ١٩- قبر على شكل كوم حجارة ٢٠- ترويض	
كودات رقم ٢١ (الموقع الطبوغرافي)									
كودات رقم ٢٢ (حالة الموقع) ١- ممتاز ٢- جيد ٣- سيئ ٤- ضعيف		٥- مبنية بولية ٦- أرض البرف ٧- باقية البرف ٨- اسفل البرف		٩- مدمر / مالح ١٠- مالح خربي ١١- مالح لوسد ١٢- مالح سكاني		١٣- (السائق) منقوش ١٤- سرج / قبة ١٥- سرج / قبة ١٦- قبة		١٧- قبة القبة ١٨- حافة ١٩- تلال جيلي منطب عالي	
كودات رقم ٢٣ (نوع التكوين والتكوين)									
كودات رقم ٢٤ (جود تصفهي للمواقع) ١- موقع مدمر / لا توجد إمكانية للتصفيح الأثرية ٢- الموقع مدمر جزئياً / لا يتصح بإجراء التصفيح ٣- التصفيح غير ضروري / إرادية ضعيفة ٤- تصفية بالمطر / إرادية متوسطة ٥- تصفية قسرية للقيام بالتصفيح / إرادية عالية ٦- تصفية بالمحافظة على الموقع ٧- تصفية قسرية المحافظة على الموقع ٨- موقع مضمي		٩- تصريف بالآليات ١٠- خندق / ماسور ، حجري ١١- خندق / قناة ١٢- أعمال طرق ١٣- منحدر ١٤- منجم ١٥- إشارات ١٦- تلال أو تلال بالآليات		١٧- إستعمال زراعي ١٨- حراثة ١٩- حراثة عميقة ٢٠- رعي ٢١- مسالك / مسالط ٢٢- ترويض / زراعة حربية ٢٣- بستان ابراك / ترويض		٢٤- لا توجد مطبات ٢٥- لا يوجد جود ٢٦- مطربة أثرية ٢٧- مطربة تخريرية ٢٨- ترويض مطبات ٢٩- الترويض			
كودات رقم ٢٥ (درجة خطورة التدهور)									
N - لا توجد خطورة		L - خطورة قليلة جدا		M - خطورة متوسطة		H - خطورة عالية			

4. Back page of the JADIS form, with description of the codes to be used, in Arabic and English.

JADIS
Jordan Antiquities Database and Information System
FULL REPORT

1. Site Number : 2309.001
2. Site Name : KHIRBET EL- LEHUN

26. Bibliographical references:

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28. Date visited: / /

29. Encoded by: GP

30. Date encoded: 17/02/92

31. Notes : Scarab (LB)
Coin (MAM/OTT)

6. Second page of a "full report" output in JADIS.