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CULTURAL HERITAGE MANAGEMENT ADAPTATION IN THE ARAB WORLD: REVIEW & PERSPECTIVES

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ABSTRACT
The paper reviews the key objectives for the rehabilitation and adaptation of the cultural Resources Management in the Arab world regarding the development of techniques and methods and the information extracted therof. The swift implementation of such objectives is discussed. The paper presents some innovation to classify the contemporary users of the historic centers into different categories. The study of the relationship between culture and technology has taken several directions in cultural anthropology. It is here urged young archaeologists to be trained in the specialized skills of Cultural Resources Management, learn the principles of international archaeological heritage management, related legislation, methods of surveying and inventories of threatened sites and should have the required essential knowledge about how to coordinate and communicate techniques of site conservation and monuments.

KEYWORDS: cultural heritage, antiquities, management, archaeology.

1. INTRODUCTION

The Arab Antiquities database and information system, which is a computerized inventory of all archaeological and heritage sites of other Arab countries, this inventory will be effective system aiming to preservation of archaeological heritage with a careful restoration.

The protection of this heritage cannot be based upon the application of archaeological techniques alone. It requires a wider base of professional and scientific knowledge and skills. There is an urgent need in the Arab world to create cooperation mechanism for the exchange of information and experience among professionals dealing with archaeological heritage management.

Cultural Resource Management (CRM) is a term used for protecting and preserving archaeological and historical sites. It is connected to the planning management and preservation of cultural heritage sites. Being a non-renewable resource, cultural heritage sites need constant attention and protection from all types of threats, which may derive from human or natural factors. The presence of CRM concept and techniques in many countries may contribute to the development of a specific CRM for the Arab world. (This "Conservation Approach" may be very successful in the rapidly developing Arab countries, where the protection of cultural heritage sites is unfortunately a low priority).

Although there is a substantial literature documenting U.S. experiences with Information Technology Transfer (ITT), (Brancheau and Wetherbe 1990; Cooper, 1994; Leonard – Barton and Deschamps 1988; Moore and Benbasat, 1991; Prescott and Conger 1995; Zmud, 1982), relatively few attempts have been made to delineate culture and social variables that foster or impede the adoption of new information technology across national boundaries. Groundbreaking descriptive work by Goodman and colleagues (Ariav and Goodman 1994; Danowitz et al., 1995; Dedrick et al., 1995; Goodman and Green 1992; Goodman and McHenry 1991, Goodman 1991a, Goodman 1991b; Goodman 1994; La Rovere and Goodman, 1992; Mesher et al., 1992; Nidumolu and Goodman, 1993; Odedra, et al., 1993; Wolcott and Goodman, 1993) has shown how IT diffusion differs significantly around the world, but these studies have not developed or tested scientific hypotheses that advance theory on the phenomenon

2. LITERATURE REVIEW

A few studies have empirically tested cross–cultural impact on the adaption and diffusion of new information technologies (Gefen and Straub, 1997; Hill et al., 1998; Ho et al., 1989; Raman and Wei, 1992; Straub, 1994). While limited in number and scope, this work suggests strongly that links between culture and IT are not mere an artifact. In studying the effect of culture on use of E-Mail and FAX in Japan, for example, Straub (1994) found significant differences between Japanese and U.S. knowledge workers in both perception and use of Information Technology (IT). Straub, Keil, and Brenner (1997) found these same effects in a three-country study including Japan, as did Gefen and Straub (1997). Ho et al. (1989) and Raman and Wei (1992) concluded that culture had a marked impact on how electronic meeting systems were perceived, used, and adapted. Thus, there is evidence to support that culture may be a barrier to ITT. What, then, is the nature of these cultural obstacles to ITT?

The study of the relationship between culture and technology has taken several directions in cultural anthropology. Earlier studies of technological "acculturation" assumed that the more "developed" countries unilaterally "gave" new technology to lesser-developed countries (Ingold, 1996). The flow in information and practical knowledge was in one direction. Once the people and institution in these countries adopted the technology, that country would "develop". More recent studies have rejected this model of development in favour of new technical knowledge is personal – the technical skill of a practitioner is embedded in the particularities of experiences and social identities of individuals within particular cultural context. Within the context of the world system, tools and knowledge are appropriated from more technologically sophisticated countries. The adaptation and use of the new technological knowledge, however varies according to local social and cultural context. Consequently, it is

differentially adopted by people in a particular culture (or country).

3. JUSTIFICATION

Protection of cultural heritage extends from salvage (or rescue) excavation to more effective management measures. While salvage is conducted to minimize damage to cultural resources during the design and feasibility study of new projects limits the need for salvage excavation during construction.

This coordination is the only approach under which cultural heritage can be protected. In brief, cultural assets from the past have some potential value or use in the present or future. In the Arab countries however there are some technical issues, which have to be considered.

4. AIMS OF THE STUDY

The research approach utilized here considers how culture influences the adaption of new technology and the construction placed on such adoption. Technological system placed within the context of culture and social relations are heterogeneous constructs that stem from the successful modification of social and non-social factors. i.e., of the actions and choices of individuals (Pfaffenberger, 1992). Schaniel (1988) has stressed that he adaption of new tools does not necessarily imply the adoption of the system of logic that produces the technology. He states " *… process of technological adaption is one where the introduced technology is adopted to the social processes of the adopting society m and not vice-versa* "(p.498). Thus, culturation is likely a two–way process of change. Any study of technological culturation must then consider the meaning of sociotechnical activities in which the appropriating culture engages as it reinterprets the new tools (Kedia and Bhagat, 1998).

5. METHODOLOGY

The planned section of the department of Antiquities in Jordan for example, could organize and manage intensive archaeological surveys for each of the new 1: 25.000 maps. The archaeological survey of Arabia will set the priority list for complete map surveys around cities and towns.

New survey projects are organized by Arab and international teams in order to proceed with the publication of the maps. Technical problems have to be solved in order to coordinate the teams, which will spend much of their time in the field recording new sites. Grants might be available from international organization such as UNESCO once the characteristics and the program of the Archaeological Survey of Arabia have been defined (Elia, 1992).

The theoretical background reflects the issues and conflicts involved in the information technology transfer (ITT) peculiar to developing countries. Cultural conflicts between the organization and management style in western and Arab institutional leaders and workers have impacted the system development process and produce unsuccessful approaches to computer use and policy (Ali, 1990), Atiyyah, 1989) and (Goodman and Green, 1992).

The use of IT in the Arab world appears to be diverse. For example, Jordan uses IT in most governmental agencies and non-governmental organization, also utilizes maintainance of extensive archaeological inventories and other forms of cultural heritage (Goodman and Green, 1992). Moreover, diffusion in Saudi Arabia still remains low (Yavas, et al., 1992).

6. THE ROLE OF MANAGEMENT IN THE ANTIQUITIES LAW

The Antiquities Law had covered the last three hundred years in some Arab countries (UNESCO 1968). Which only recently have became the focus of the legislative and research – oriented initiatives of the CRM project. However, this could not the applied on such a rigid distinction between "archaeological" and "traditional" heritage. Therefore, the word "management" in the term " Management of cultural resources " needs to be clarified (Hill et al., 1998) and this clarification will includes:

- Preservation of the archaeological heritage sites with careful restoration or "soft approaches" (for example including an endangered site as part of green area).
- Protection of heritage in the short or long terms by planning for the creation of archaeological preservation parks, and adequate coordination with all governmental

and private agencies that can be involved in development.

- The organization of the rescuing archaeological projects, conducted in advance of any construction, with the aim of reducing the risk of destruction the archaeological resources.
- The organization of computerized national inventory if known archaeological resources, and the proper integration of these resources into Arab's community life.

Figure 1. Traditional neighbourhoods in Sana'a (Yemen), showing very compact and ornate residential buildings

Each of these aspects we have tried to advance to the point where protection and enjoyment of cultural heritage is an obligation and justice not only for the departments of antiquities of Arab World, but for every citizen (Hill et al., 1998).

As recent indications show the protection of cultural and natural resources go side-by-side: both involve the protection and conservation of limited, non-renewable resources.

UNESCO and the World Bank do not make the distinction between natural and cultural resources: both are part of our common heritage, and both require the same level of thoughtful attention and expertise.

The CRM team concentrated on the protection of cultural resources (Including, however, what we called "cultural landscape".

The integration of natural and human-modified environments is a difficult task due mainly of type of nature and constraints of our expertise.

While more specific environmentalist actions were conducted by Non-Governmental organization NGO, such as the Royal Society for the Conservation of Nature (UNESCO 1956), (Djeflat,1988).

Many of the unique sets of the historic cities have found their international recognition with their inclusion in the UNESCO list of world heritage sites, Table 1 features the list of the historic centres that thanks to their pre-eminence, to the interest of the international community, and to the support of the national government, have been inscribed on the world heritage list.

Table 1. UNESCO list of world heritage sites

UNESCO list of world heritage sites			
Country	**Cultural World Heritage Sites**	**Of which historic centers**	**Historic centers classified as world heritage sites**
Algeria	6	2	M'Zab valley (five edinas), Kasbah of Algiers
Egypt	6	1	Old Cairo
Lebanon	5	3	Baalbek, Byblos, and tyre
Libya	5	1	Ghadamès
Morocco	8	6	Fez, Marrakesh, Meknes, Tètouan, Essaouira, and El Djadida
Syria	5	3	Damascus, Bosra, and Aleppo
Tunisia	7	3	Tunis, Kairouan, and Sousse
Yemen	3	3	Shibam, Sana'a, and Zabid
Total	**45**	**22**	

The Arab Antiquities Database and Information System (AADIS), is the precise positioning of each catalogued site using Global Positioning System (GPS) technology. This technology now is available at an affordable price, which is based on a network of fixed orbit-satellites which transmit information to portable receivers on the geographic location of points on the Earth's Surface (Bukhari and Meadows, 1992).

The AADIS program is one of the cornerstones of the present CRM project. The ultimate goal is to enter into computerized database coded information about all known archaeological sites in Arab countries allowing quick and effective monitoring of sites under threat of destruction. (Yavas et al.,1992).

Figure 2. A covered souk, or traditional commercial district, occupies ancient buildings in Tripoli (Lebanon)

This database system fills a major gap in the management of the Development of Antiquities Archives. This computerized inventory can provide a wide range of different sites lists (by name), geographic of coordination period of use or by level of preservation, etc.) at a keystroke and within a few minutes. When this database is completed it have met one of the requirements of the 1972 UNESCO convention (articles 29.31), on the protection of the cultural and natural heritage. (e.g. a complete inventory of the known archaeological heritage). It will also case the process of monitoring areas under construction. By entering any area's coordinates, all of the archaeological sites within those coordinates will be displayed, greatly reducing the chances of accidental destruction (Schaniel, 1988).

CRM in Arab countries will be developed into an effective method for the departments of Antiquities to monitor construction activities and to anticipate the need for salvage excavation, by conduction preliminary surveys and feasible excavations, and this can be achieved in order to limit the damage that might occur to cultural resources. Yet Today, CRM is working for the creation of techniques of information gathering and methods of information sharing (Schaniel, 1988).

7. THE INCOME PER YEAR FROM CULTURAL TOURISM IN RECENT YEARS FROM SOME ARAB COUNTRIES

The direct contribution of cultural resources management and tourism to GDP (Gross Domestic Product) reflects the 'internal' spending on the direct contribution of cultural resources management and Tourism, as well as, spending by government on travel and tourism services directly linked to visitors such as cultural or recreational.

The direct contribution of cultural resources management and tourism to GDP is calculated to be consistent with the output, as expressed in National Accounting, of tourism-characteristic sector such as hotels, airlines, that deal directly with tourists.

The direct contribution of tourism to GDP is calculated from total internal spending by 'netting out' the purchases made by the different tourism sector. The measures are described in the following table (Table 2). (World, travel and tourism council 2014).

Table 2. The income per year from cultural tourism in recent years from some arab countries

country	2013		2014		2024
	Contribution of tourism to GDP	Percentage of GDP	Contribution of tourism to GDP	Percentage of GDP	Expected increase of GDP
Egypt	1.353 bn $	5.6%	1.380 bn $	5.65 %	4.9 %
Algeria	6.437 bn $	4.0%	6.704 bn $	5.8 %	3.8 %
Lebanon	3.149 bn $	6.9%	3.217 bn $	7.1%	6.2 %
Libya	1.284 bn $	3.3%	1.292 bn $	3.31 %	3.7 %
Morocco	8.420 bn $	8.6%	9.105 bn $	9.3 %	5.6 %
Syria	819 mn $	4.5%	727 mn $	4 %	2.5 %
Tunisia	2.964 bn $	7.3%	3.043 bn $	8.2 %	3.6 %
Yemen	1.344 bn $	2.9%	1.407 bn $	3.2 %	2.4 %
Jordan	1.788 bn $	5.3%	1.831 bn $	5.55 %	5.1 %

8. INFORMATION GATHERING

The Arab Antiquities Database and Information System (AADIS) is computerized inventory of all the archaeological and historic sites of Arab countries, from the Palaeolithic to modern periods. It will also include traditional villages and modern architecture (Yudhishthir, 1985).

The database is also indexed by the site's map coordinates, so as to allow Department of Antiquities inspectors to monitor development in critical areas.

Figure 3. Archaeological area and modern city coexist side by side in Jerash (Jordan)

This is greatly speeding up the process of archaeological site identification in areas developing areas, and is providing concerned development agencies with updated reports concerning the presence and current status of cultural resources in these areas. There are however, many areas in the Arab Countries, which have never been intensively surveyed. This is why the archaeological survey of Arab Countries is now badly needed in order to recover detailed information on existing resources and to classify the land according to density and to relative importance of cultural resources.

9. INFORMATION SHARING

This goal can be achieved by setting up standard measures of coordination between the Departments of Antiquities and various development agencies. Coordination means that the Departments of Antiquities are able to produce Cultural Resources impact assessments for new construction projects when these are still at a planning or design stage. If cultural resources are threatened by these projects, changes to original designs can be made without incurred costs.

At such an early stage, the Departments of Antiquities can also conduct better and more accurate studies with no need to rush to save what is left behind the bulldozers.

Participation of the Departments of Antiquities in master plan preparation and zoning decisions is also an effective CRM tool. This allows better protect and enhancement of cultural heritage sites which might otherwise be the victim of expanding urban and rural centres.

In particular, an "Arabia Cultural Resources Management Project " (ACRMP) could:

- Develop computerized inventories of archaeological and historic sites, either using the multi-lingual AADIS program as a base, or by developing a common database system, running on a single mainframe, which could be accessed via modem by users.

- Organize a plan for the Archaeological survey of Arabia, in order to organize and manage the intensive survey of the participating countries, and enter the resulting information into a common inventory, assisted by a (GIS) program.
- Encourage the preparation of Arabia Heritage list, in which all the archaeological and historic sites needing total protection from development and exploitation would be listed.
- Assist in the creation of agreements between local Departments of Antiquities and development agencies, in order to protect cultural heritage sites from destruction due to development. Such agreements may include the mandatory preparation of cultural resources impact assessments before project approval.
- Stress the importance of coordination between Departments of Antiquities and municipalities for the creation of master plans and zoning, decisions in which the presence of archaeological resources and the management of historic centres has been properly considered.
- Study current Antiquity and Urban planning legislation in the Arab countries and propose improvements.
- Assist the tourism industry in identifying new targets, in improving the presentation of archaeological sites and moderate restorations in accordance with the UNESCO Venice Charter, and in identifying and managing possible risks to site integrity due to tourism overexploitation (Carol,1991).

10. THE IUCN PROTECTED AREA MANAGEMENT CATEGORY SYSTEM

So the nation of protected areas is developed at a great deal in recent years and now embodies many different ideas. Nonetheless, IUCN has agreed upon definition of protected area as follows:

A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

Within this broad IUCN definition, protected areas are in fact managed for many different purpose, to help improve understanding and to promote awareness of protected area purposes. IUCN has developed a six-category system of protected areas identified by their primary management objective (IUCN 1994) as shown in Table 3. Table 4 shows the cultural landscape of some Arabic countries arranged by UNESCO regions, and classified upon the IUCN management category system (IUCN 1994).

Table 3. The IUCN management categories of protected areas (IUCN, 1994)

CATEGORY I	**Strict Nature Reserve/Wilderness Area: protected area managed mainly or science of wilderness protection**
CATEGORY Ia	Strict Nature Reserve: protected area managed mainly for science
Definition: CATEGORY 1b	Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring. Wilderness Area: protected area managed mainly for wilderness protection
Definition: CATEGORY II	Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition. National Park: protected area managed mainly for ecosystem protection and recreation
Definition: CATEGORY III	Natural are of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generation; (b) exclude exploitation or occupation inimical to the purposes of designation of the area; and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible. Natural Monument: protected area managed mainly for conservation of specific natural features
Definition: CATEGORY IV	Area containing one or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

	Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
Definition: CATEGORY V	Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirement specific species. Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
Definition: CATEGORY VI	Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has product an area of distinct character with significant aesthetic, ecological and/or cultural value. And often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area. Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems
Definition:	Area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

Table 4. Cultural Landscapes on the world Heritage List in the some of the Arabic countries, arranged by UNESCO Regions

Cultural Landscapes on the world Heritage List in the some of the Arabic countries, arranged by UNESCO Regions

Region	State Party	Site	Year Inscribed	Cultural Landscape Category
Arab States				
	Egypt	Ancient Thebes	1979	II 'relict'
	Lebanon	Cedars	1998	III
	Oman	Frankincense Trail	2000	II 'relict'
Total	3 x States Parties	3 x cultural landscape	1979-2000	2 x II 'relict' x III

11. NATIONAL REGISTER OF CULTURAL HERITAGE SITES (NRCHS)

Such register should record information about all sites and monuments needing total preservation. Information should also include their legal status and boundaries. A commission might be created in order to decide about the eligibility of sites in the register. The commission could decide if a request for inclusion presented by archaeologists' architects, or private citizens meets the standard for including the site or the monument in the register.

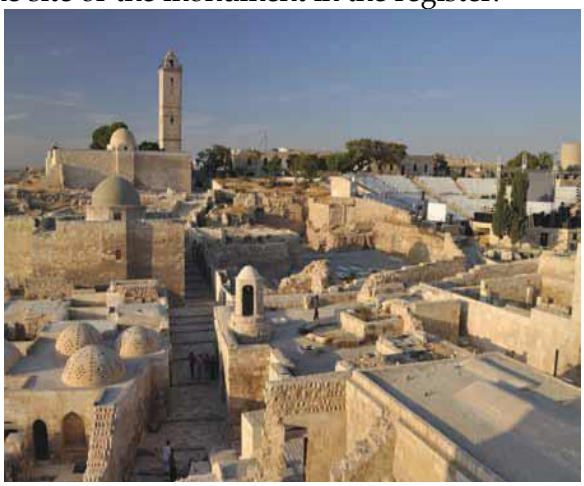

Figure 4. The citadel is one of Aleppo's (Syria) most ancient monumental area

12. EFFORTS TOWARDS THE IMPLEMENTATION OF A CRM IN THE ARAB WORLD

The following examples illustrate the level of cooperation between the archaeologists and the contractors that also reflect the more formal procedure (Cleere, 1989).

Design phase: Design phase intervention is an important element of the CRM strategy because it minimizes the necessity for recues or salvages archaeology. Design phase planning involves producing detailed studies of new projects and the examination of alternative location, whether conducted directly by the CRM program, or coordinated by CRM and conducted by the department of Antiquities by the universities. Preliminary surveys and excavation are critical to the establishment of pattern of predevelopment cultural resource management and to demonstrate the importance of early coordination, in order to avoid both, damage to cultural resources and costly to constriction projects. The preparation of cultural resource impact Assessments (CRIAs), also establish a model for future activities involving predevelopment procedures and the standardization of these reports will be of great help, as a

cultural resources comment will have to be included in Environmental Impact Reports (EIRs). The effectiveness of this process has to be initiated at the earliest possible opportunity in all new construction projects.

Feasibility study phase: While it is always preferable to start coordination at the design phase, it is still possible to limit the damage to culture resources by intervening at the feasibility study level. During this phase CRM personnel now negotiate final Cultural Resources Impact Assessments to be used as basis to negotiate provisional sums for rescue work.

Tender bidding phase: Awareness of sites endangered by a construction project at this late phase compels the Departments of Antiquities to organize emergency surveys or excavation.

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 (Biwes, 1987).

Construction phase: two types of intervention can occur at this phase: (1) rescue, based on planned activities resulting from early coordination with the development agencies, and (2) emergency excavation.

12.1 Rescue excavation

(Unplanned interventions): these have been conducted by the Departments of Antiquities with provisional sums negotiation by the CRM team in the Tender Bidding phase of each project. The CRM team also provides coordination to avoid conflicts between the contractors the archaeologists (Makmanamon, 1992).

12.2 Emergency excavation

(Unplanned interventions): emergency excavation have normally been the only possibility open to the Department of Antiquities to save 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 insertion at the construction phase conclusion. Ultimately, the success of any CRM program must be rooted in public education and public awareness. (Public Awareness and Educational programs, PAEP).

13. CONCLUSION

The protection of archaeological sites requires that public have a proud understanding of impotent of archaeology preservation, one has to introduce educational seminars in government and development agencies about the importance of building the future without destroying the past also to educate the public, that their ensue of place and of blooding is firmly rooted in their cultural heritage here also.

The goal of CRM is the conservation of archaeological resources for future generation. As such, it is an honourable part of professional archaeology, and must be taught within the university education system (Wickam, 1992).

It is essential for young archaeologist to be trained not only in culture history and filed method, but also in the specialized skills of CRM they should learn the principles of international archaeological heritage management, antiquates legislation, methods of surveying and inventorying threatened sites, how to coordinate and communicate, techniques of site conservation and monuments and finally archaeological heritage education.

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