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NEW FRONTIERS IN IRANIAN ARCHAEOLOGY: DIGITAL TECHNOLOGY AND CULTURAL HERITAGE

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SUMMARY

Inspired by my recent work in Iran – were I was able to compile a digital corpus of material culture related to the ancient Iranian civilization of Elam – I stipulate and encourage archeological and museological objectives cognizant of twenty-first-century challenges. At its core, this vision is compelled by a philosophical understanding of the museum as a research and didactical institution, while critically considering the complex relationships between museums and politics, and the imperative need to merge computer literacy with a sound understanding of the material at hand. At the end it is the archaeologist, I argue, that through our privileged role as interpreters of the material past, together with a full awareness of present cultural and political realities, is uniquely positioned to advocate for fully-implemented digital museum systems which would make archaeological collections truly accessible to a global audience.

KEY WORDS

Digital technology, cultural heritage, National Museum of Iran, Iran-e Bastan Museum, museology, computer literacy, Elam, Elamite art, digital catalogue, Susa castle, Haft Tappeh, Tchoga Zanbil, plundering of museums, archaeological collections, British museum, Louvre museum, intellectual property.

Before the Iranian Revolution in 1979, Iran was one of the most promising and prolific areas of archaeological and anthropological research anywhere in the world. It is therefore a celebratory event that, after almost twenty five years of institutional foreign archaeological inactivity, and thanks to the extraordinary leadership of a number of officials and individuals, Iran is once again welcoming foreign scholars to its soil.
In 2003, under the auspices of a Fulbright-Hays scholarship[1] and working closely with the authorities of the National Museum of Iran and the Iranian Cultural Heritage Organization (ICHO) provincial authorities of Khuzistan, I was able to successfully compile a digital corpus of material culture[2] related to the ancient Iranian civilization of

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* The author is a doctoral candidate in ancient Near Eastern art and archaeology at the University of California, Berkeley. This paper is the result of a Fulbright-Hays research project in Iran during the months of February through May 2003. The author is most grateful for the help and warm hospitality of Mohammad Reza Kargar, Director of the National Museum of Iran, Shahrokh Razamjou, Director of the Center for Achaemenid Studies, Zahra Jaffar-mohammadi, Head Curator, National Museum of Iran, Mohammed H. Talebian, director of the Iranian Cultural Heritage Organization at Haft Tappeh, Tchogha Zanbil and Persepolis, Peter Morgan, Director of the British Institute of Persian Studies, and Remi Boucharlat, Director of the Institute Français de la Recherche en Iran.

1 The projects lasted from February 21, 2003 until May 21, 2003.

2 All the pictures in the present catalogue were taken by the author with a Coolpix 990 digital camera, 3.34 megapixels (Nikkon). Lighting changed according to the different locations where the pictures were taken. In all cases, the author sought to balance out the natural and/or artificial light of the room with artificial light sources specifically, an Unomat DC 3000 light projector (Accu-Pack) and a Nikon SL-1 digital ring projector. The background for most pictures was provided by a black piece of cloth (regularly used for a *chador*). I used my personal laptop computer as motherboard of the project. Given time constraints, the catalogue was originally designed to present a survey of the most representative forms and objects of Elamite culture and was not meant to include all Elamite artifacts (pots, pottery shards, clay tablets, clay figurines, etc.) reviewed by the author. The final catalogue comprises a total of 1159 digital photographs corresponding to 623 objects.

Elam. In addition, I made an assessment of the collection and reported on the results to the Iranian authorities. What follows is a two-part evaluation of such a project. At the outset, I will be presenting a summary of the official report. Subsequently, I will articulate a number of observations in regards to the museological implications of this study for future archaeological research and scholarship. By intentionally focusing on museology[3] – rather than on present-day excavations conducted on Iranian soil[4], or on innovative scholarship[5] – it is the purpose of this paper to stress the significance of preserving, organizing, and publishing the artifacts already present in public institutions. The goal of this exercise is to stipulate and encourage archaeological and museological objectives cognizant of twenty-first-century challenges. At its core, this vision is compelled by a philosophical understanding of the museum as a research and didactical institution, while critically considering the complex relationships between museums and politics, and the imperative need to merge computer literacy with a sound understanding of the material at hand.

1. THE ELAMITE DIGITAL CATALOGUE OF THE NATIONAL MUSEUM OF IRAN

Contrary to Egyptian and Mesopotamian civilizations, which predominantly developed along the margins of rivers and channels, a substantial part of the ancient Iranian civilization of Elam, which was located in the present-day Iranian provinces of Khuzistan and Fars, was centered on the Zagros Mountains[6]. It is a combination of highland and lowland traditions which characterizes the personality of Elamite culture. This civilization lasted about 2000 years[7] and arguably ranks with contemporaneous Near Eastern cultures of note in fascination and significance.

A necessary first step in the construction of an Elamite digital catalogue required a clear understanding of the nature and context of the various locations where Elamite material remains could be expected to occur. Directly tied to this enterprise were the unique historical characteristics of recent political events in Iran and their impact upon the heritage of Elam. Two main historical events shaped the state of the Elamite collections. In 1979 the Iranian Revolution brought to all existing foreign archaeological

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3 Museology is here defined as the study of the role and functioning of museums.

4 For an update on excavations in Iran before 1998 see Boucharlat 1998: 143-155. A team from the University of Sydney (Australia) under the direction of D.T.Potts has been conducting archaeological research in Tul-e Spid (Fahlian) since 2003. A joint international team is also involved in the excavations at Jiroft (Kerman).

5 A number of recent international archaeological congresses may be said to bear witness to a revival of ancient Iranian studies and of international cooperation. See the forthcoming publications of the 2003 Iron Age Congress in Ghent (Belgium) and the recent 2004 4ICAANE Congress in Berlin (4th International Congress on the Archaeology of the Ancient Near East).

6 The name we employ to identify this civilization presents us already with the multivalent personality of this cultural entity. The word Elam may be derived from Elamite *Ha(l)tamti*, meaning 'gracious lord land' (Hinz 1971: 644), or 'high land' (Quintana 1996: 50; Vallat 1996: 89). Thus, at a basic level, and despite potential disparity in time and traditions, this terminology accords with a visual experience related to an unspecified, but broadly ubiquitous, geographical feature: the (gracious) high land.

7 This estimate is in line with a 'minimalist' position (Potts 1999: 4). A more inclusive approach would incorporate the 'Elam before Elam' period (or the Proto-Elamite period), reaching all the way back to the foundation of Susa at around 4200 B.C. and will end with the emergence of the Persian empire.

research projects to an end[8]. In the aftermath, a large body of unclassified archaeological material either reached the National Museum of Iran or was left in the museums and storage units of Haft Tappeh and Susa, located in the southwestern territory of Iran (Khuzistan province). A second event was caused by the unforeseen invasion of Iran by Iraqi troops during the Iran-Iraq war (1981-1989). Due to the dangerous approach of Iraqi troops – and the bombing of the castle and modern city of Shush by Iraqi forces – a decision was taken to transfer many of the main items from the museums and storage units of Susa and Haft Tappeh to the Iranian National Museum in Tehran. A dramatic rescue mission made it possible for some objects to reach Tehran while other objects were left behind at Haft Tappeh or ended up being transferred to the excavation headquarters at Susa[9]. Under these circumstances, few of the objects left behind or reaching Tehran were recorded, classified or properly sheltered.

After gathering the essential permits and making acquaintances[10], I was able to begin working at the National Museum of Iran at the end of February 2003. I found the Elamite material to be unevenly distributed throughout the Museum and storage areas of six departmental divisions[11]. Given the then existing degree of documentation within each department – even in those departments that had maintained an archive, there was no catalogue of the objects in terms of their cultural origin – I decided to inspect all objects known to have originated from all locations known to have belonged to the Elamite cultural realm (not only in the provinces of Khuzistan and Fars but also extending to sites located in the region of eastern Elamite influence such as Shahdad and Tepe-Yahya) in order to determine which of the objects inspected were to be included in the catalogue[12]. In the process I found most of the material to be spread throughout cabinets and shelves in a seemingly random manner. I also took the opportunity to alert the responsible individuals about the number of objects in a poor state of preservation. At the end, the author made a number of recommendations to the museum authorities among which is the creation of a Department of Elamite Antiquities which shall contain all the artifacts of the ancient Iranian civilization of Elam and the establishment of a Center for Elamite Studies.

Included in the catalogue are a number of objects presently held at the museum of Haft Tappeh[13] and the museum and castle of Susa[14]. Under direct request and

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8 As a result a large number of foreign scholars who had previously worked in Iran changed the focus of their studies.

9 This should not be taken as the official version of the events, but only as one pieced together by the author in the course of his research. One should also remember that many innocent civilians from towns in this area were killed by the effects of the Iraqi bombardment.

10 I wish to express my deeply felt gratitude to the staff of the museum for all their help and friendship. This project could not have been accomplished without their selfless collaboration.

11 That is, the Coins and Seals Department, the Prehistory Department, the History Department, the Central Treasury Department, the Inscriptions Department, and the Main Storage Room.

12 In many cases in which the cultural origin of an artifact was questionable – either because the reference provided at the time of the excavation was illegible, or there was a mismatch between the reference to the excavation and the museum reference, or there was no reference – I decided to include the object in the catalogue anyway.

13 I had the opportunity to reside at the Tchoga Zanbil Preservation Project facilities at Haft Tappeh for about two weeks. I am most grateful to Mr. Talebian and the Tchoga Zanbil Project team for their friendly hospitality.

14 Unique historical archaeological characteristics make the site of Susa one of the longest and most unearthed sites in the world. For an evaluation of the archaeological history of this site see Chevalier 1997: 81-82; Mousavi 1996: 1-16; and Amiet 1997: 94-95.

auspices of the National Museum of Iran and the authorities of the Iranian Cultural Heritage Center Khuzistan province, I had the privilege to spend a week in the castle of Susa in company of Ali Mousavi, a fellow doctoral student at UC Berkeley. Our common purpose was not only to make an assessment and digital catalogue of all the Elamite objects found inside the castle and in the museum but to include observations related to the total condition of the castle and Susa's ancient mounds.

Inside the castle, we had access to five previously sealed areas located in the lower patio and containing artifacts mainly from past excavations performed at Susa and at surrounding tells (such as Djaffarabad, Chogha Mish, Bendebal, Tchoga Zanbil, and Haft Tappeh)[15]. Four of the five storage rooms held material as it was presumably stored before the Iranian Revolution. Hundreds of cardboard boxes containing pottery sherds were found on shelves and throughout the floors next to a bulky quantity of larger objects most of which are ceramics and inscribed clay bricks. To my knowledge, there are no written records describing the material found in these storage areas[16]. A fifth large storage room inside the castle contains a mixture of objects from various historical periods. Among these we found objects from Tchoga Zanbil and Haft Tappeh which indicates these may have reached Susa during the Iraq-Iran war. In this storage the author was able to register 26 Elamite items, including 109 digital photographs of the objects in question[17].

Finally, there is a large storage building adjacent to the museum of Susa (the museum itself has been under restoration for a number of years and remains empty). Here the situation was disconcerting since most of the material appeared to have fallen from broken metal shelves and to have spread over the floor in a haphazard manner[18]. Small heaps of glazed bricks intermingle here and there with hundreds of inscribed clay bricks, pots, broken sculpture, molds, and broken clay sarcophagi. Given the absence of a catalogue and time constraints, I was unable to report on the specific characteristics of the materials. Some unique objects however, such as in the mythical glazed griffon[19] from Tchoga Zanbil which was painstakingly restored by Mme. Tanya Ghirshman (Ghirshman 1970: 385) (see figures 5 and 6), have suffered terribly from neglect. Some of the objects present in this storage building were to be exhibited in the nearby museum of Susa, but given the state of the objects themselves and the continuing prolongation of the reopening of the museum, this worthy goal remains in suspension[20].

Included in the official report was a chapter about the present condition of the Tell of Susa and the impact that the rapid growth of modern city of Shush is having on its preservation (see figures 1, 2 and 3). It became apparent to the author that, left to itself, the hurried and seemingly unregulated spread of the modern city of Shush will lead to the destruction of parts of the tell. It is therefore absolutely imperative to create a legally bound borderline between the territory of the ancient tell of Susa and the modern

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15 The role of Mr. Reza Mohammad Kargar, director of the National Museum of Tehran, and members of the staff of the National Museum of Iran, was pivotal in making sure we had the necessary access to the installations. A report in English and Persian related to this work was delivered to the authorities.

16 Some boxes contain labels but many are no longer readable. Otherwise I am not aware of the existence of records that date back to the time of the French Mission.

17 The author was glad to report on the reappearance of the unique clay funerary heads from Haft Tappeh and recommended their transportation to Tehran for restoration and conservation (see figure 4).

18 It is unclear whether this was the result of the Iraqi bombing of the site. Although it did not appear that the storage had received a direct hit from the Iraqi shelling; the falling and breaking of shelves and objects indicates they were exposed to some kind of shock-wave.

19 For the representation of griffons in Elamite-Iranian cultures see Khazai 1978.

20 The museum of Susa was inaugurated in March 1, 1967 (Ghirshman 1970: 413).

city[21]. This borderline shall include the green belt buffer zones on the northern and eastern parts of the Tell[22]. In general, the current situation of the ancient site of Susa can be summarized as being in a state of neglect and abandonment which, given the rapid deterioration of the castle itself and the hurried development of the town of Susa, can lead to the partial destruction of this most important Iranian and world heritage site. On the positive side, the museum of Susa appears to be nearly completed and would provide a perfect space for the creation of a didactic environment from which to introduce the ancient civilizations of Iran to local and foreign visitors[23]. The main priorities at this point are (1) the cataloging and preservation of all the material present at Susa; (2) the restoration of the castle and the protection of the various tells of Susa; (3) the completion and inauguration of the Susa Museum and; (4) the inclusion of the ancient city of Susa in the UNESCO chart of world heritage sites[24]. The author is aware of the countless difficulties involved in the implementation of these recommendations and can only envision their fruitful achievement within the frame of a constructive collaboration between local and international experts and institutions and the highest ranking Iranian governmental officials responsible for the preservation of Iran's Cultural Heritage.

. . . Much of the world's art has never been photographed, let alone digitized, and that art has never had a public function.... Moreover, only selective views have been taken of most sculpture and architecture. Only a negligible percentage of the millions of existing photographs have been scanned. Therefore, an immense campaign of digital imaging is the major need of art historical research at this age. The rapidly increasing rate of decay of artifacts and architecture in situ and the danger of military and ethnic destruction give special urgency to this task. The advent of automatic digital acquisition and digital search promise a vast increase in information and accessibility.

(Digital Imagery for Works of Art Workshop, Harvard 2001[25])

2. DIGITAL TECHNOLOGY AND CULTURAL HERITAGE

The purpose of the previous report was to summarize the challenges and practical accomplishments of a project primarily concerned with developing a digital photographic catalogue for the National Museum of Iran[26]. Inspired by this experience, an evaluation of the complexities and outcomes involved – which, I may remind the reader, took place against the background of the war in Iraq and the plundering of Iraqi

[21] The actual perimeter of the old Achaemenid city spread outside the tell, but it is difficult to asses its limits other than the ones marked by the ruins of the palace of Artaxerxes II at the right bank of the Shaur and a second monumental Achaemenid installation 1 km to the northeast of this one (Boucharlat and Shahidi 1987 in Potts 1999: 337).

[22] The author believes these zones to correspond to parts of the ancient marshes and "forested" regions surrounding the ancient city.

[23] The author recommends the collection to be arranged along chronological and cultural lines stressing the enormous role played by the ancient civilization of Iran in shaping world history.

[24] Eventually, the author envisions the creation of a Iranian Center for Preservation and Restoration together with the creation at Susa of an International Center for Archaeological Research.

[25] Harvard University Art Museums, Cambridge, Massachusetts, November 19 and 20, 2001. Report of the Co-Chairs, Kiernan, K., Rhyne, C., Spronk, R., on-line publication: http://www.dli2.nsf.gov/mellon / index. html, pg.8.

[26] The author intends to use this database to involve the national Museum of Iran and the Louvre Museum in the creation of an on-line corpus of Elamite material culture available on the internet to all.

museums (see Cordoba 2000) – has brought me to reconsider and reflect upon the priorities and challenges facing ancient Near Eastern archaeologists in the near future and the best ways to take advantage of digital technology in order to address such issue. Presently, I would like to share some of these observations with the reader.

The unparalleled technological revolution we have been experiencing in the past twenty years has forced all of us working in the field of ancient Near Eastern (Southwest Asian) studies into various degrees of innovation and adaptation. Yet, while most of us recognize the advantage of sending a message electronically over a walk to the nearest post-office, it is less clear where the improvement lies when dealing with more sophisticated digital technology. I shall argue that, because of its boundary-free nature, digital technology provides an unprecedented tool for protecting, managing, and bringing forth to light the cultural heritage held in museums and collections worldwide[27]. In order to understand how such an enterprise will transform the archaeologist's work, we must now take a quick look on the impact that digital technology is having in reshaping the mission of museums worldwide.

Since the 1980's, and in response to funding crisis, museums in the West have been exhorted to concentrate on management techniques that incorporate categories borrowed from the marketplace. From a market viewpoint, the museum could not be excused from competing for a number of limited resources among which are public and private funding, volunteers, status, visitors and objects to add to the collection. Trying to balance out economic interests without compromising their core philosophy and having to contend with other leisure centers, many museums have invested large amounts of human and material resources to put forward a platform which combines education and leisure (see McLean 1997: 71). During the 1990's[28], while economic considerations continued to weigh heavily in the choices made by museum management, the incorporation of digital technology into the museum has appeared to be unavoidable[29]. With the beginning of the twenty first century it is still not uncommon for museums around the world to spend millions of dollars in new purchases, face-lifts and renovations in order to provide a unique setting in which to experience the object[30], yet most museums now manage their own websites, "providing not only economic benefits but actively impacting upon leisure and tourism as well as education and enlightenment" (Cossons 1991: 186).

Although ultimately it should be a matter of managerial choice whether a museum prioritizes the "material self" over the "digital self", we must admit that, if

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[27] I will not be talking here about the application of digital technology in the archaeological field *per se*. There are however universities that already include this topic in their curricula (see University of Southampton, http://www.arch.soton.ac.uk/Prospectus/Computing/). A number of exciting archaeological projects are also underway, serving as models for similar enterprises. See for instance the International project by the Cdli (Cuneiform Digital Library Initiative), http://cdli.ucla.edu/index.htlm; or the Nemea valley Archaeological project, http://learningsites.com).

[28] By 1993 CD-ROM's begin to be introduced in the market; In 1995 the internet began using applications leading by 1997 to the World Wide Web (WWW) which became the facto application environment of choice. In 1997 took place the First International Conference on Museums and the Web (Los Angeles, www.archimuse.com/mw97); A second and third conferences in the same topic ensued (New Orleans, www.archimuse.com/mw98; and Toronto, www.archimuse.com/mw99).

[29] See Museum International Journal 1999 and 2000 issues on museums and the internet. A number of museums played a pioneer role and served as models of the diverse ways the technology could be incorporated. On-line since 1993 the San Francisco Exploratorium Museum now maintains a web site containing 15,000 pages. The site receives 15 million visitors a year.

[30] See, for example, see the last printed issue of The Art Newspaper (International Edition), April 2004.

anything, the new technology, and the World Wide Web in particular, compels museums to find new ways of representing themselves in this new environment. This is not a small challenge since what it is at stake is the potential to transform the nature and expand the mission of the museum[31] by reaching out to a public beyond the museum walls[32]. In practical terms, digital technology will expand the "material self" of the museum into the 'digital self'. The digital 'self' of every object in the museum collection will provide a context in which to preserve and share information about the object regardless of its material fate. In addition, the museum will operate its for-display and storage collections in a free-access environment, aiding curators with information retrieval, reducing the need to handle original material, and promoting collaboration between specialists and the public at large[33]. Properly delivered and used, digital technology allows for social interaction of a kind never experienced before and answers to social needs such as the protection, preservation and propagation of the common world heritage.

When we come to museums housing archaeological material the fact remains that, while many museums have committed themselves to have part of their collections made available to the public on the internet[34], few museums have taken advantage of the new technology and made the effort to tap fully into their information systems and still fewer integrate their information with that of other institutions. It is however a well known fact that museums holding archaeological collections are limited in their display of objects and are fortunate if they can manage to have up to one-fourth of their collections exposed to the public[35]. For example, the total number of objects in the British Museum has never been realistically computed, but educated guesses placed it in the region of five to six million. The museum began in 1978 to compute the whole collection. By March 2000, 1.2 million records, containing information on 1.9 million objects had been completed (see Wilson 2002: 305-306). Out of these, only a selection of about 5,000 objects is presently available on-line to the public (i.e. to anybody in the world having access to the internet). The Louvre museum has announced a forthcoming

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[31] Museums are social constructs whose mission can be defined in a number of ways. Generally speaking, the mission of the museum is to collect, document, preserve, and interpret material evidence and associated information for the public benefit (Museum Association – United kingdom – 1984, Ambrose and Paine 1994: 15). ...'for the public benefit means that the museum should be non-profit, and indicates that museums are the servants of society' (Museum and Galleries Commission 1988: 5).

[32] For instance, the Guide to Canadian Museums and Galleries of the Canadian Heritage Information Network (CHIN) present a collaborative on-line resource dedicated to promoting Canadian museums. The Guide is based in participation, openness, decentralization of responsibilities, cooperation, sharing of interests and resources, and group ethics (Geber 1999: 199).

[33] Purely technological frontiers are ahead of us but in a no-so far distant future we should expect virtual reality reconstruction (see Kiang 1999), together with high speed multimedia access (see Bordoni 1999), to document archaeological excavations and contextually understand archeological data (see Kriszat 1999; and Dabney and Wright 1999). Hand held devices using wireless communication will become main archaeological tools for in-site recording and transmission of archaeological data. In the area of industrial prototyping there would be possible to produce accurate three dimensional models of computer generated designs (Milekic 1999: 145). Micro-electronic chips fixed to the artifacts and containing the "DNA" of the objects will allow for the automatic downloading of the information for the internal management of the collections and museum exhibits and borrowings.

[34] Although still many of these sites "are little more than electronic versions of tourists brochures and offer only a tantalizing glimpse of the resources available" (Doerr 1999: 157).

[35] On-line museum collections maybe consulted at Virtual Library Museum Pages (VLMP), http://vlmp.museophile.com, a directory of on-line museums throughout the world.

Atlas on-line database of all the objects on display[36]; it is however unclear what percentage of the objects from the total archaeological collections will be included in this enterprise. In this respect, it is worth mentioning the exceptional work of the Petrie museum of Egyptology whose complete collection of 80,000 objects is now available on the internet (www.petrie.ucl.ac.uk)[37].

These few examples from leading western museums holding archaeological collections indicate that no twenty first century museum can afford to ignore computer technology[38]. Inevitably, new solutions bring new challenges. As it is already the case, providing electronic access to cultural heritage collections confronts the museums with the copyright ordeal. Since statutory law such as copyright may not be applicable to images on the internet, museums may be reticent to place images on the internet knowing that little protection will be afforded to their "intellectual property". That is why a new on-line contract between the museum and the potential visitor has to be formulated[39]; "If used effectively, copyright, managed well and respected in business arrangements enhances and encourage access to copyrighted materials" (Pantalony 1999: 225).

To conclude, by reflecting on my own experience in Iran and concentrating on museological concerns, I have tried to give a small glimpse of some of the challenges and the exciting future work that lies ahead, as I understand it. I do not believe however that modern technology provides the panacea for all the problems one encounters in the archaeological world. Neither do I believe technology should be used to continue to assert the privileged role of the western world over less materially advanced societies[40]. My emphasis on conservation and dissemination of the object does not arise out of an obsession and fetishisation of the *thing* itself or a self-serving notion of stewardship but, to the contrary, it seeks to force decentralization, collaboration and to promote access. At the end it is the archaeologist, I argue, that in a privileged role as an interpreter of the material past, together with a full awareness of present cultural and political realities, is uniquely positioned to advocate for fully-implemented digital museum systems which would make archaeological collections truly accessible to a global audience.

3. END NOTE

The presence of Akkadian, Old Babylonian and Kassite objects in the immediacy of the Elamite religious heart on top of the Acropole at Susa – such as the celebrated Hammurabi Code and the Naram-Sin stele– indicates that the "museological" impulse to reunite and preserve objects of the past in a shared common space was

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[36] About 5585 in the Oriental Antiquities Department and 4716 in the Egyptian Antiquities Department (see www.louvre.fr).

[37] A virtual museum showcasing of Egyptian antiquities including 6.600 objects from 10 European collections has been made available through the Global Egyptian Museum (GEM). It is expected that the GEM will include more than 17,500 objects by the end of 2004 (www.ccer.nl).

[38] In fact, anybody watching the impact that computers are having in present young generations will reach the conclusion that the future belongs to a world of computing and audiovisual equipment interaction. One should seriously consider not only whether a generational gap is already hindering the transmission of knowledge but also what role is popular culture going to have in articulating the past.

[39] There are purely technological means to protect images on-line (such as the microscopic branding of the images) but this road may lead into a technological uncertain destination.

[40] It is morally improper, in my opinion, to digitally 'colonize' the archaeological collections of museums from less materially developed countries without making sure these institutions have the technological means and human capacity to participate in the process and the outcome of the project.

already present in the Elamite world of the XIIIth and XIIth centuries B.C. (Amiet 1976: 48).

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Fig. 1. Drawing of the tomb of the Prophet Daniel at Susa by De Bode 1845.

Fig. 2. View of Susa, 1947.

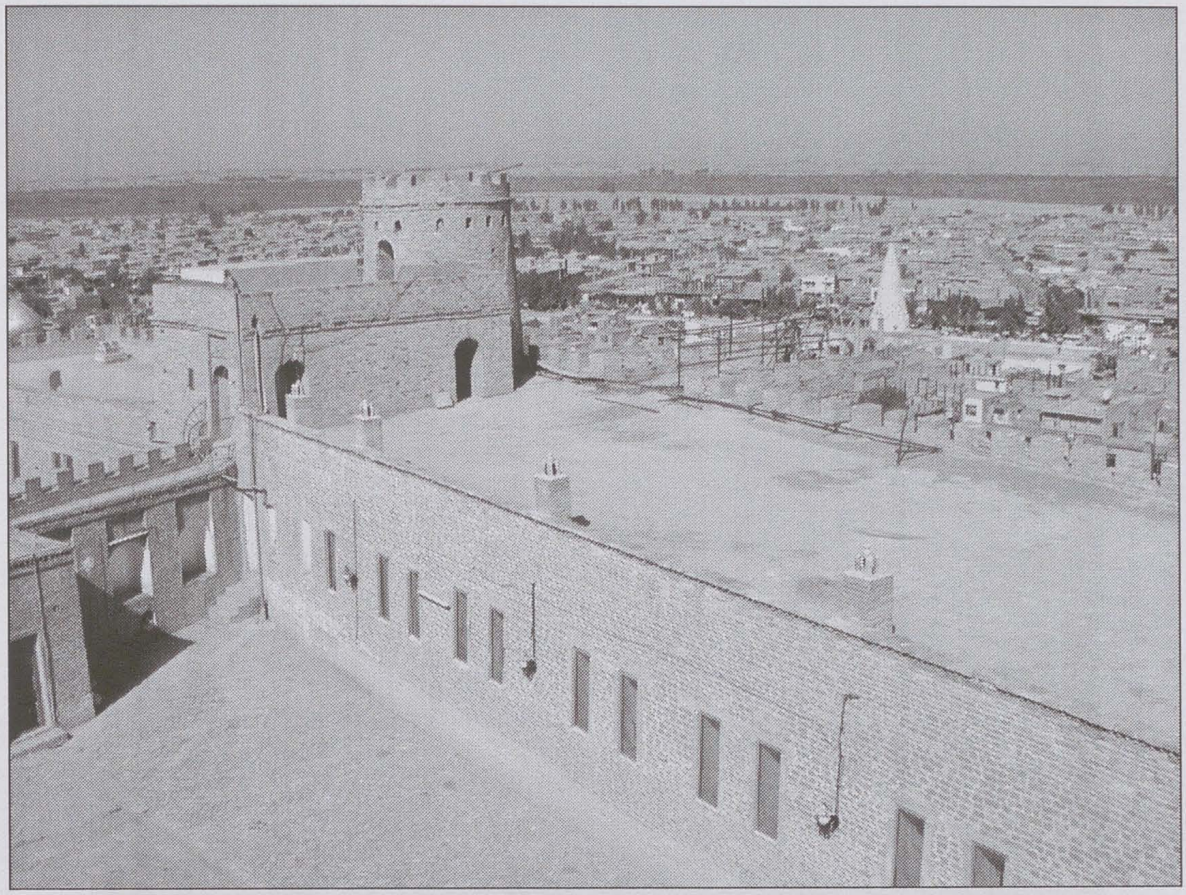

Fig. 3. View of Susa looking north. Photograph by the author, May 2003.

Fig. 4. Haft Tappeh female heads. Photograph by the author, May 2003.

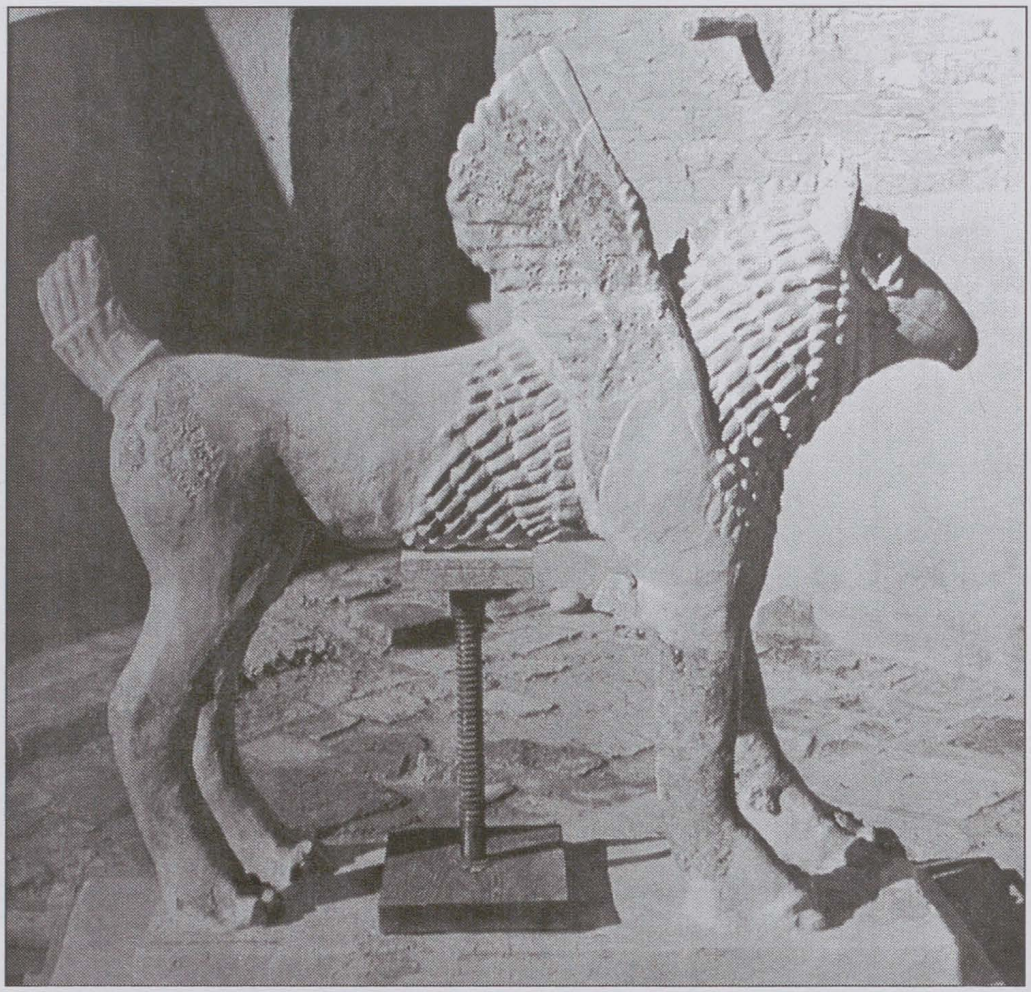

Fig. 5. Glazed griffon from the north/west door of the Ziggurat of Tchoga Zanbil. In Tania Ghirshman 1970.

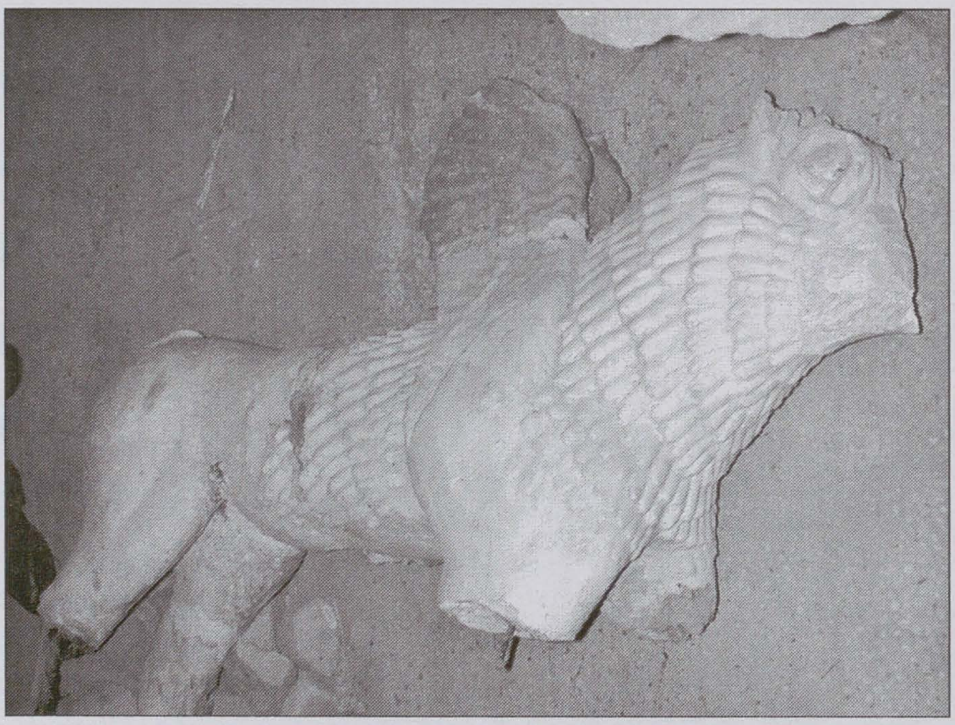

Fig. 6. Fragments of a glazed griffon from Tchoga Zanbil. Photograph by the author, May 2003.