One consequence of years of dictatorial regime, international embargo and war was isolation of the professional community responsible for the protection of cultural heritage in Iraq. This community was cut off from international debate concerning the development of methodologies and theories on the conservation and management of archaeological sites, historic monuments and districts. The Iraq State Board of Antiquities and Heritage (SBAH), the governmental body responsible for the nation’s cultural heritage, was also depleted of resources. Professionals could not access information, new technologies, such as the Internet and digital photography, and could not follow the international literature or discussions reflecting advances in practice. The Getty Conservation Institute and the World Monuments Fund partnered in late 2003 to form the Iraq Cultural Heritage Conservation Initiative (hereafter called the Initiative), to assist the SBAH to redevelop its professional and managerial capabilities. In meetings with the directors of departments of the SBAH in 2004, a plan was conceived to address the problems. A series of training courses was developed aimed at various categories of SBAH’s staff, from directors of regional offices to archaeologists, engineers and surveyors. The training programmes covered technical topics such as the use of computers, geographic information
Introduction

When news broke of the looting of the Iraq Museum in Baghdad in early April 2003, people around the world were stunned. Before the invasion there had been fears for the museum and archaeological and historic sites across Iraq. Many organisations had warned the US and British militaries to be aware of sites and avoid conducting military actions in or around them. But many did not expect looting of sites on a vast scale. Cultural heritage professionals both within and outside Iraq, however, knew that this was likely. Trade in stolen cultural property, together with drugs and arms trafficking, is a profitable criminal activity today, and it thrives during periods of warfare and political instability (Bernick 1998). During the years following the 1991 Gulf War, looting of archaeological sites had dramatically increased in Iraq, especially in areas with waning central government influence, such as no-fly zones (Farchakh 2003). For this reason international organisations, such as UNESCO, ICOMOS, and others, lobbied for the protection of archaeological sites and collections and requested to put the Iraq Museum, regional museums, and significant archaeological sites and monuments on the list of the top sites to protect during the invasion and following the occupation of the country. Having learned from experience during the 1991 Gulf War and the subsequent periods of instability, the staff at the various museums in Iraq proceeded with preventive measures, which included at the Iraq Museum the removal of many objects to the museum basement, to other external vaults and secret locations, and protective padding of large objects and statuary that could not be removed.

Today it is easy to say that more should have been done to protect the collections and sites. This may be true, but we perhaps forget other important considerations:
staff of SBAH were operating with little means, there were no computers to inventory collections and sites, and no tools to monitor legal and illegal activities. Furthermore, financial and human resources were meagre, with little ability to patrol and protect sites. If we add to this the impressive scale of looting of sites that had started in Iraq already in 1991 (and not only after 2003, as many believe), and the quantity of freshly excavated artefacts that needed to be conserved, classified, and stored following the occasional, but increasingly frequent seizing of looted material, we have then a picture of an over-stretched and ill-equipped professional staff in Iraq that could not properly cope with the challenge facing them.

The GCI-WMF Iraq cultural heritage conservation initiative

In October 2003 the Getty Conservation Institute and the World Monuments Fund met in Los Angeles to develop a programme of assistance to the SBAH, following the catastrophic damage sustained by Iraq’s cultural heritage during and in the aftermath of the 2003 war, and in anticipation of reconstruction efforts. As a result the two institutions created the Iraq Cultural Heritage Conservation Initiative and subsequently signed a collaborative agreement with the SBAH in Amman, Jordan, in March 2004 (Agnew & Palumbo 2005; Agnew et al 2007; Snoonian 2005; Getty Conservation Institute 2008). The Initiative mobilised international resources and attention in support of the Iraqi cultural authorities and their objectives — the reduction of threats to Iraq’s cultural heritage, repair of damage, and rebuilding the country’s professional conservation and heritage management capacity — beginning with funds from the J M Kaplan Fund, the GCI, and a grant from the National Endowment for the Humanities, and in 2004 and 2005 with support from UNESCO to provide training programmes held in Jordan.

Because of security concerns, the Initiative has been able to mobilise only limited resources within Iraq itself. Two emergency grants have been provided: one to the Massachusetts College of Art for the reinstallation of protective roofi ng over Sennacherib Palace at Nineveh, which was looted in the years following the 1991 war, and a second to the American Association for Research in Baghdad for protection of archaeological sites in central Iraq. In addition, for a time, support of English language courses was provided for SBAH personnel in Baghdad, Mosul, and Hillah.

National GIS systems for Iraq and Jordan

An important component of the Initiative under development is a geographic information system (GIS) for the SBAH to contain a national inventory of sites. The system will serve as a tool to manage archaeological sites and heritage buildings through documenting and monitoring site conditions, threats, and needs, and help to set priorities for protection and interventions. The system is being developed as a customised, Arabic-English GIS. The information system is inspired by an earlier one developed in Jordan. The Iraqi system, however, will be a much expanded version, which includes the possibility to record in detail individual buildings, conditions, and intervention recommendations, and the ability to attach to each external record, such as reports, photos and architectural drawings. The GCI and the WMF have held numerous meetings with SBAH leadership and other personnel about their requirements for the GIS. Once the GIS is implemented, it will respond to the need
to record data from rapid assessments of the conditions of a comprehensive range of sites, from prehistoric flint scatters to large buried sites, and from the remains of 5,000-year-old mudbrick palaces to Ottoman buildings and more recent architecture of cultural value. Although such a tool would have been of enormous help if available before the war, its need today is still a priority, as the inventory of sites, their features, and the threats they are exposed to will provide the tool for the SBAH to better protect these sites.

The Initiative is providing a broad package that includes the GIS, methods for collecting the required information on sites, as well as guidelines and manuals to describe site conditions and typologies and features (some in the form of visual glossaries to ensure that personnel documenting the sites use a common vocabulary) (Fig 1). The Initiative, through the support of UNESCO, has provided technical equipment and related training for improving the level of recording and documentation for these sites, including survey total stations, laser distance meters, GPS units, and digital cameras (Fig 2).

The State University of New York (SUNY) at Stony Brook, and the University of Chicago, provided SBAH with digital data on more than 7,000 archaeological sites in Iraq, including geographic coordinates, associated information on cultural period, and size. This will be used as the basis to develop more extensive and updated information through on-site data collection. While the Initiative has provided methods, tools and training in collecting site data, SBAH staff in Iraq will, once the GIS is implemented, collect and enter data to populate the system.

While the Initiative was initially developing a version of the GIS that was intended for use on stand-alone computers in the main SBAH office in Baghdad, we realised that the worsening security situation in Baghdad, and other provinces, made this unfeasible. Moreover, a long hiatus in our communication with the upper management of SBAH following the departure of SBAH Director Donny George Yukhanna in the summer of 2006 had almost halted this project. We then decided to pause and assess requirements for a sustainable system in Iraq. This assessment led to the decision to shift development to a web-based system to allow it to operate from a server in any location, to permit remote system maintenance and monitoring of use, to allow regional SBAH offices to independently access and contribute to the central database, and to permit access to parts of the system by international scholars and researchers.

As the hiatus with the SBAH continued, the Initiative first decided to explore developing a web-based system for the Jordan DoA, which has similar requirements, in order to permit unimpeded progress in developing and testing the system and in recognition of the DoA’s steadfast support of the Iraq Initiative. After the DoA confirmed its interest, it signed an agreement with the GCI and WMF in May 2007 to replace the Jordan Antiquities Database and Information System (JADIS) (Palumbo 1999) with a new web-based system, using open source software, called Middle Eastern Geodatabase for Antiquities (MEGA) — Jordan. The approach has been to develop MEGA-Jordan in such a way that it has been extensible and configurable for Iraq and other international countries in the future. Development of MEGA-Jordan will be completed in summer 2010 and after system deployment in Jordan it will be followed by adaptation for Iraq (Fig 3).
Training

The second key component of the Initiative is training of SBAH professional staff in heritage site conservation and management philosophies and methodologies. In 2004, the Initiative conducted training (based in Jordan) focused on a rapid site assessment
FIGURE 2  Training in the use of total stations for heritage surveying (photograph by Mario Santana). © J. Paul Getty Trust / World Monuments Fund

FIGURE 3  Screenshot of MEGA-Jordan. © 2010 Google-Imagery © 2010 Digital Globe, GeoEye
methodology, which included modules on site and building assessment, documentation and recording, and database and GIS applications. The course involved instruction in the use of technological tools, including computers, technical software, global positioning system (GPS) devices, total survey stations, digital cameras, laser distance meters, and digital scanners. In 2005 training modules in Jordan and at the British Museum in London covered international heritage conventions and charters, site management planning and in-depth condition assessments, as well as including further technical training in surveying methods and tools (Fig 4). In 2006 the Initiative supported the participation of two SBAH personnel in a 14-week course at the State University of New York (SUNY), Stony Brook, in the use of satellite imagery and GIS to assess and record damage to archaeological sites, particularly from looting. One of the participants now heads a new SBAH remote sensing department.

The SBAH is committing significant human resources to this programme, which improves the chance of its long-term impact. Twenty-seven staff from the SBAH have participated in training courses, with most attending multiple activities as the Initiative’s focus is on in-depth training. The staff represents all professional categories at SBAH: surveyors, architects, engineers, archaeologists, including those employed in functions ranging from data entry and archiving to surveying and mapping. It also has included directors of provincial offices and participants from all regions of the country, including Kurdistan. It is difficult to predict whether this is enough to ensure the sustainability of our training activities. In the present situation, one might think that this training was premature. We believe, however, there was an immediate need
to begin a capacity building programme for the SBAH. It was important to show support to SBAH in their attempt to protect Iraq’s cultural heritage in very difficult circumstances. It was also important to develop capacities at SBAH to prepare its staff for future protection and conservation activities, especially in anticipation of potentially damaging development and infrastructure projects. Finally, we do not believe in short-lived and occasional activities: sustainable capacity is only built with long-term partnership programmes that provide time to verify the successful transfer of know-how and the implementation of the programme on the ground.

Most courses have been held in Amman, Jordan, at the American Center of Oriental Research (ACOR), which provides an excellent environment for trainees and staff involved. As mentioned, the assistance of the Jordan DoA has been an essential element of the courses, both in terms of logistical assistance and technical content. Instructors have included representatives of organisations such as the US National Park Service, English Heritage, and the UNESCO World Heritage Center, who generously made their time and expertise available, and also Iraqi professionals now residing in other countries and other professionals from Jordan and elsewhere in the Middle Eastern region. The Initiative has utilised to the greatest extent possible professionals from Iraq and the broader region to participate in delivery of the courses given their familiarity with the heritage, cultural context, and Arabic-speaking abilities. GCI-WMF also commissioned the translation into Arabic of numerous heritage conservation and management documents, including international charters and principles. To aid exchange and communication between Iraqi participants and instructors, and the possibility to better understand the needs of our colleagues without the barrier of language, one of the full-time facilitators during major courses has been an Iraqi expatriate conservation architect.

In early 2007 the Initiative communicated with the then chairman of SBAH, Dr Abbas al-Hussainy, and the partners signed a renewed memorandum of understanding in Paris in August 2007. This memorandum specifies the creation and population of a GIS of Iraqi sites and monuments, and the development of the appropriate skills within SBAH to address this task. It also reiterates the commitment of the partners to train SBAH personnel in techniques and methods of site assessment and site management planning. This was followed in December 2007 when the upper management of SBAH, including acting chair Dr Amira Edan, department heads, and the directors of 13 of the 18 provincial offices, attended a week-long workshop at ACOR in Amman with GCI and WMF staff, and UNESCO and US State Department representatives. The workshop focused on gaining insight into the working conditions and status of sites in Iraq and understanding the SBAH’s priorities, as well as continuing discussions on the SBAH’s GIS requirements and planning future activities. These meetings were valuable for SBAH officials, as for some it was the first time they were able to see each other again after years, and for all it was an opportunity to get updates on the situation on the ground, which is more complex and diversified than one may perceive from media accounts. While in some areas fieldwork is impossible, in others the security situation is such that site monitoring and conservation work is being conducted. Kurdistan is one such region, but also other regions in the south and in Anbar province in the west are safe enough for SBAH staff to work in the field.
Future training activities will include improving and standardising data collection procedures, and eventually incorporating them in the web-based GIS.

Conclusions

Notwithstanding the many programmes of assistance to Iraq from various external organisations, the cultural heritage remains in grave danger. The experiences, however, show that even in difficult war conditions it is possible to develop and maintain international assistance. The work of UNESCO to coordinate international efforts has been vital to reduce duplication of efforts and to best channel offers of help by governments and non-governmental organisations. Duplication still exists, and this is exemplified by courses on site management planning being offered by various international institutions to the SBAH that follow differing methodologies. Because much of international site management planning practice developed during the years of embargo and isolation of Iraq from the rest of the world, there is a risk that SBAH’s upper management and professional staff may not make a critical judgement on the quality of the information being transmitted to them.

It is important to mention the difficulties in carrying out the work of the Initiative. Foremost has been Iraq’s security situation, which has not allowed SBAH staff to operate in many areas of the country. As mentioned, the security situation in Baghdad also necessitated a fundamental shift in the design of the GIS to be a web-based system that was initially developed for Jordan. A second challenge has been a lack of continuity in the top leadership of the SBAH. Thus far the chair of the SBAH has changed five times during the six years of the Initiative, at times resulting in significant interruptions in engagement and requiring time to familiarise each new chair with the Initiative's goals and activities. Difficulties in communication and language barriers have also slowed down many activities, especially as they relate to obtaining permits to have people travel to foreign countries, and this has been compounded by the difficulty for Iraqis of obtaining visas to travel abroad.

On the positive side, some Iraqi heritage professionals who left the country in the past are assisting in the training of the new generation of site managers and conservators. The ongoing collaboration between the SBAH, the GCI, and the WMF also demonstrates that cultural heritage conservation can and should be an essential part of assistance programmes for countries in conflict. Moreover, the sad experience suffered by Iraq in the looting of its cultural properties, and continuing still, further demonstrates the importance of preparedness before conflict. Preparedness of a country’s professionals in adopting emergency procedures for the protection of collections and sites, the existence of policies delineating procedures and methods of cultural property protection, and the presence of inventories of sites and objects of cultural significance are, incredibly, still low priorities in many countries, which are then forced to pick up the pieces after disaster strikes, while relatively simple and inexpensive procedures would have helped prevent the most damaging consequences. International help tends to assist countries where disaster has struck, rather than minimise risk prior to such events. Prevention is better than cure, and we would like to stress once again the importance of a preventive approach to documenting,
conserving and managing cultural properties. We understand the difficulties of conducting these actions with little means, often in isolation (as was the case of Iraqi professionals during the time of embargo after the 1991 Gulf War), but we are convinced that effective protective measures can be taken in the most difficult circumstances, as demonstrated by the salvaging of part of the Iraq Museum collections by the museum’s own staff. We hope that the lessons learned in Iraq will convince more international organisations and countries to improve their understanding of risk and learn about ways to prevent and reduce the damaging impact of war on cultural property.

With growing expertise formed through assistance programmes, Iraq will be able to better protect and manage its cultural heritage sites in the future. At present, though, the SBAH continues to request assistance in building its staff’s capabilities. To effectively conserve and manage the nation’s heritage the institution will also require constant support from the national government in the form of funding and appropriate national policies. Ultimately, success will not only be measured in the number of saved sites and monuments, but in the capacity of Iraq to act effectively and manage its heritage independently of foreign help.

**Notes**

1 The Jordanian system, called JADIS, was developed by a team led by Gaetano Palumbo and later enhanced by Stephen Savage (Arizona State University) and in use until recently.

2 See http://www.getty.edu/conservation/field_projects/jordan/

**Bibliography**


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