

American Mission activities in Libya 2005–16: report

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Abstract

This essay outlines the capacity-building work of the American Archaeological Mission to Libya between the years 2005 and 2016. This work was made possible by grants from the US Embassy to Libya, the US State Department Ambassadors Fund for Cultural Preservation (AFCP) and the Bureau of Near Eastern Affairs in Washington, DC. The principles and objectives underlying our capacity-building programme were inspired by the 2003 UNESCO World Heritage Centre Mission Report by Giovanni Boccardi, in particular his recommendation that the Libyan Department of Antiquities obtain training in the best modern cultural heritage management practices via sustained partnerships with external professionals and organisations.

يضع هذا التقرير خطوطاً عريضة لبناء القدرات الذي تقوم به بعثة الآثار الأمريكية إلى ليبيا بين الأعوام 2005–2016. إن المنح التي قدمتها السفارة الأمريكية في ليبيا وصندوق السفراء لحماية التراث (AFCP) ومكتب شؤون الشرق الأدنى في واشنطن جعل هذا العمل ممكناً. إن المبادئ والأهداف الأساسية لبرنامج بناء القدرات قد استوحيناها من تقرير جيوفاني بوكاردي لبعثة اليونسكو للتراث العالمي، وبالأخص توصيته بأن تقوم دائرة الآثار الليبية بالحصول على أفضل تدريب في إدارة الموروث الثقافي الحديث وذلك عن طريق شراكات مستدامة مع مهنيين ومؤسسات من الخارج.

1. Background

After a hiatus of twenty-three years, the American Mission returned to Libya in 2004, reborn as the Cyrenaica Archaeological Project (www.cyrenaica.org), under the direction of Professor Susan Kane (Oberlin College, USA). Its predecessor, the American Archaeological Mission in Libya, directed by Professor Donald White of the University of Pennsylvania, began excavations in Cyrenaica in the 1960s, first in Apollonia and then in Cyrene at the extra-mural Sanctuary of Demeter and Persephone in the Wadi bel Gadir.

White's excavations in Cyrene were conducted between 1969 and 1978. Two study seasons took place in 1979 and 1981 before political discord between the US and Libya led to the project's suspension. The results of the project were presented in a series of articles in *Libya Antiqua* and the *American Journal of Archaeology* between 1971 and 1977

and, from 1984, a seven-volume 'Final Reports' series was published by the University Museum, University of Pennsylvania (White 1984; 1985; 1987; 1990; 1993; 1997; 1999; 2012).

With the renewal of relations between the United States and Libya in January 2004, Susan Kane and Donald White met in Tripoli with the Libyan Department of Antiquities (DoA) in July 2004. As a result of this visit, a licence was granted to Susan Kane to resume work in Libya as the Cyrenaica Archaeological Project (CAP).

During a visit in January 2005 the American Mission found the Department of Antiquities (DoA) in Shahat in sad decline. Their facilities were in poor condition – the main building, library, and storage facilities all had leaky roofs, spalling facades, non-existent heating, ventilation and air conditioning, little electricity, and no technology. Abdul Kader el-Muzeine, then Controller of Antiquities of DoA Shahat, reported that the Department's staff had been reduced from about 300 employees in the mid-1970s to fewer than 70 in 2004. The reduction in staff numbers was only part of the problem. More distressing was the fact that many of the younger employees were lacking the basic skills to do their work. Almost all of them were unaware of the digital technologies that their international colleagues used to facilitate the management of archaeological resources. During the 1980s, the quality of the Libyan public educational system decreased considerably and instruction in foreign languages ceased entirely, making it more difficult for young archaeologists to seek opportunities for professional development outside of Libya.

The political embargo of the 1980s and 1990s had also greatly reduced Libya's ability to engage with the world. This isolation had caused a notable generational gap. While most of the older archaeologists had received some training in Europe and America and spoke Western languages in addition to Arabic, few of the younger archaeologists had any experience outside Libya and most spoke only Arabic. Beyond the inadequate education of its staff, the DoA suffered from the insufficient (and intermittent) governmental support for its projects, making it impossible for the organisation to conduct its work in a sustained manner that complied with international best practices. The dysfunctionality of the DoA during this period is

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very similar to that seen in other public institutions in Libya (cf. Transparency International Report: National Integrity System Study Libya 2014, 187). With little support from their government, current DoA staff members became passive custodians instead of active managers of their remarkable cultural heritage.

When discussing their current problems, senior members of the DoA such as Abdul Hamid Abdul Said, a long-time DoA administrator, would describe the ‘Golden Age’ of the DoA in the 1970s and early 1980s, which was the product of Richard Goodchild’s vision and planning in the 1960s. Goodchild had selected promising individuals and sent them out of the country for training in various technical areas: conservation, aerial photography and cartography, survey, etc. These men formed the main administrative and teaching core of the DoA when they returned. This model had broken down in the 1980s and everyone we talked to expressed the wish for it to be created anew.

During this visit Abdul Kader el-Muzeine requested our assistance in rebuilding the DoA Shahat office. Returning to Tripoli, we paid a courtesy visit to then Special Interest section of the US State Department in Libya, which quickly produced an offer of support for this work. With the help and encouragement of the US Department of State and in partnership with the DoA Shahat office, the American Archaeology Mission to Libya began a series of capacity-building projects in cultural resource management training and infrastructure improvement initiatives. The overall goal of these endeavours was to enable the DoA to create, implement, and maintain a modern cultural heritage management system that would enable them to be effective guardians of Libya’s cultural heritage.

2. A capacity-building programme begins

Our capacity-building work was made possible by grants from the US Embassy Tripoli and the US State Department Ambassadors Fund for Cultural Preservation (AFCP), and the Bureau of Near Eastern Affairs (the Appendix lists these grants by title and date). Some funding was provided by the DoA and local councils within Libya to support the lodging and board of DoA personnel and instructors engaged in this work. It is important to note that the DoA has provided little funding to purchase the technology required for this work and none to support its maintenance. Much of the technology that we have purchased for use by the DoA is now wearing out and needs to be replaced. The lack of sufficient and appropriate technology throughout the DoA

inspectories has been a continued hindrance to our work.

The 2003 UNESCO World Heritage Centre Mission Report by Giovanni Boccardi, written as part of the UNESCO World Heritage Centre’s regular reactive monitoring of World Heritage sites, inspired the objectives and principles underlying our capacity-building programme. Along with a clear-eyed assessment of the state of the country’s UNESCO World Heritage sites, the report called for the DoA’s need to acquire modern infrastructures and to obtain training in the best modern cultural heritage management practices via sustained partnerships with external professionals and organisations.

Our training activities have spanned the Gaddafi era (2005–11), the Revolution (2011–12), and the post-Revolution period (2013–). Our work first concentrated on training personnel in the DoA Shahat office. Our training programme gradually expanded to include personnel from other DoA offices in Cyrenaica, Tripolitania, and the Fezzan; we have also worked on the ‘national’ level, providing courses designed to include participants from all regions of Libya.

Work during the Gaddafi era was difficult. We were not able to obtain visas on a regular and predictable basis and we were well aware of the general distrust of Libyan officials towards Americans working within the country. During the Revolution our activities were mainly concentrated on putting together the NATO no-strike list and in providing occasional support from outside the country. For two years after the Revolution (2012–14), we were able to resume in-country work and to undertake a sustained programme of training courses. This momentum was brought to a halt in the spring of 2014 due to the worsening security situation within the country.

Since 2014, our training activities are being conducted outside of Libya, mainly in Tunisia. But as conditions continue to deteriorate in 2016, it is becoming increasingly difficult for us to sustain a coherent rhythm of training and support activities. We cannot travel to Libya nor get equipment or funds into the country easily. Getting personnel out of Libya to train in Tunis is becoming more and more difficult. Conditions in some parts of Libya have deteriorated to the point that it is difficult for our colleagues to conduct work. Chronic electricity shortages, long waiting times for basic consumer goods, delayed payment of wages for departmental staff, bank freezes that prohibit individuals from accessing their savings, and difficulties while travelling all distract DoA staff from their responsibilities on the job.

To their credit, our Libyan colleagues remain willing to work when and where they can. Despite the difficulties they are facing in the current political crisis, they continue to be interested in training opportunities and in trying to implement the modest projects they have planned. Our workshops provide the trained staff with time to be away from their everyday problems and work obstacles as well as a good environment in which they can learn, think clearly, and produce good work. Most importantly, they offer an opportunity to inculcate in the participants a sense of team work and national cooperation.¹

3. Developing a programme of capacity building and training

The American Mission, with the collaboration of the DoA, has been offering a series of training courses in both Cyrenaica and Tripolitania to teach modern international standards for the documentation and inventory of archaeological sites and museum collections, site monitoring, and cultural heritage management practices. Some computer hardware and collections management software have been purchased to assist in these efforts.

The capacity-building initiatives are based on a simple principle: ‘train the trainers’. Through a series of linked courses and workshops, the American Mission has sought to create a continuous and progressive training programme. The idea is to work as often as possible with specific individuals who move forward in a series of increasingly advanced courses with the aim that these individuals will be able to take on the responsibility of training others in another series of courses offered in regional offices throughout Libya. Individuals advance through this system on the basis of merit; those who perform well on written tests and field exercises go on to the next step and inherit greater responsibility. This seems like the best investment of time and effort to begin to create a real workforce for the Department of Antiquities. As new persons are trained by these trainers, they can be added to new advanced courses. This system builds a larger group step by step. This past year, these activities have also focused on providing management skills training to foster leadership and team-building skills.

It is important to note that our training has been conducted primarily in Arabic with Arabic-speaking instructors but when necessary we have also used simultaneous translation. American Mission activities have been concentrated in two areas: infrastructure improvements and capacity building/training. As training has progressed, we have created a number of focused internships for smaller groups of personnel

outside of Libya. These training activities have also stimulated a number of other initiatives, including a National Centre for the Documentation and Digitalization of Libyan Heritage and a National Emergency Museum Inventory programme.²

4. Towards a modernisation of the Department of Antiquities records system: training courses in site documentation, mapping, and risk assessment

At the time of the American Mission’s first visit in 2005 the DoA Shahat had only one computer, poor office facilities, and a staff with virtually no computer experience. Electrical wiring was totally inadequate: no circuit breakers, primitive distribution (bare wires, inadequate switches and receptacles, and few outlets), and no power conditioning. On the positive side, Controller Abdul Kader el-Muzeine was committed to beginning a computerisation initiative, and there was a group of younger archaeologists who appeared to be eager to learn and with time to devote to the project.

Beginning in 2006, in collaboration with DoA Shahat, the American Mission established a small laboratory at the main DoA building with networked computers and peripherals. A number of digital cameras, GPS units, and other equipment were purchased and several staff were trained in computer basics. Additional funds were also provided to enable any DoA Shahat staff who were interested to take additional computer and English-language courses in al-Bayda. The English-language teachers were trained at Dr Azza Boghandora’s English Centre at Omar al-Mukhtar University (a programme supported by the British Council). Over twenty people began bi-weekly English-language lessons in 2009, and a dozen employees persevered to complete two years of instruction.

Three projects were initially undertaken with DoA Shahat. Abdul Kader el-Muzeine asked the American Mission to collaborate in the creation of a cultural heritage management system for Cyrenaica as well as to provide advice for the scanning of photographs from the site’s extensive photo archive; and National Chairman Dr Saleh Agab requested our assistance on the development of a database for the artefacts in the Cyrene Museum and the redesign of its storage facilities.

To prepare for the development of a cultural heritage management system, an examination of the current DoA site records system was made. The records of the DoA Archaeological Sites Registration Archives are based upon a dated national sites registration form that contains fields for rudimentary

information about each site. This information was digitised into an Excel spreadsheet and photographs of some of the sites scanned from the photo archive.

In the autumn of 2010, three Libyans — Ziad Siala from Tripoli and two archaeologists, Fawzi Alraid and Munsif Nasser Katab, from DoA Shahat — came to Oberlin College as Research Associates in Archaeology to work on the further development of DoA information systems in Arabic and English. Their review of DoA Shahat legacy records revealed that critical information was often missing and that other information could be incomplete or inadequate. Furthermore, only about 10% of the sites could reliably be located on a map, and precise boundaries of the sites that could be located had not yet been established. There was no information about the condition of the sites, as most of them had not been inspected in many years. During this review it became clear that these legacy records did not meet contemporary international standards (e.g. Council of Europe, 2009), a fact that was noted in recent UNESCO reports on Libya.

The examination of the current DoA records system in 2010 made it clear that Libya urgently needed a modern cultural heritage management system with a National Heritage Environmental Record (HER) database – i.e. a comprehensive digital record of a country's known archaeological sites, built heritage, and designated landscapes. Such a system and database would assist the DoA to make the best use of their limited resources in the implementation of a periodic monitoring programme so that they could more effectively manage the archaeological sites in their care and also help them to identify priorities for future site conservation work. The database would additionally be of use to researchers both in Libya and abroad and serve as a resource for any future plans for tourism development.

Our work during the 2011 Revolution to compile a NATO no-strike list of cultural sites on the basis of the incomplete data we had assembled for the 2010 Oberlin review reinforced this sense of need. Returning to Libya in early 2012 in the aftermath of Gaddafi's death, we saw that the need for such a heritage inventory had only become more acute due to the dangers of a burgeoning civil war, as well as the problems of continuing population growth, expanding urban encroachment, and increased illicit looting. In order to better navigate the uncertain climate of the time, the DoA had no choice but to begin a comprehensive programme of mapping, documentation, and risk evaluation of irreplaceable heritage resources around the country.

To work towards this goal, two AFCP grants were awarded in 2012 to conduct training courses

in site mapping, documentation and risk assessment in Cyrenaica and Tripolitania.

The first site documentation and assessment training course was held in Shahat (21 April to 14 June 2012). A total of 27 students participated in the training course (drawn mainly from the Department of Antiquities administrative region of Shahat, but the number also included students from the administrative regions of Benghazi and Tripoli). The course was designed to improve techniques for documenting and registering archaeological sites in Cyrenaica. Through a mixture of lectures and practical field sessions, the nineteen students who successfully completed the course acquired the skills necessary to document archaeological sites and site elements and to systematically record this information using standardised survey forms and computer applications including Microsoft Excel and Google Earth, making the information from the survey forms more readily searchable.

A second course was held in Leptis Magna (28 October–20 December 2012). A total of 48 students participated in the training course, drawn from the Department of Antiquities branch offices of the Leptis Magna, Tripoli, Sabratha, and al-Janoub inspectorates, as well as students and instructors from al-Marqub University in al-Khoms. The participation of students and instructors from a Libyan university marks a new attempt to reach out to future employees of the Department of Antiquities and some of these young people were among the most successful participants in the course. Thirty-nine students successfully completed the course.

An advanced course (20 May–6 June 2013) brought together the best students from the two earlier courses, chosen by their rankings in a final examination for each course. The advanced course had three primary objectives: 1) to create a group of trainers to teach their fellow Libyan archaeologists the theory and practice of site documentation; 2) to provide practice teaching for the trainers by teaching residents of the Jabal Nafusa how to document their own cultural heritage; and 3) to develop a prototype of a national inventory with an associated visual glossary.

Twenty-two students from the earlier courses in Shahat and Leptis participated in the advanced course. They came from all regions of Libya (Tripoli, Jabal Nafusa, Ghadames, Leptis Magna, Misurata, Ghirza, Sabha, Shahat, Derna, Jaghbug, Benghazi, and Tolmeita). From the outset of the advanced course it was evident that the students were deeply interested in sharing their knowledge and skills with their fellow archaeologists in the

various branch offices, particularly with the substantial number of new hires. However, most had little experience in teaching or in making public presentations and had never developed teaching materials. The students, both individually and in groups, therefore prepared PowerPoint presentations on topics such as: 1) the importance of Libyan heritage; 2) GPS theory and practice; 3) mapping with Google Earth; 4) photography of archaeological sites; 5) archaeological survey techniques; and 6) describing archaeological sites.

The Jabal Nafusa segment of the advanced course took place in Yefren (9–20 June 2013). Eleven advanced course students participated in this two-week outreach course using teaching materials developed in Tripoli. They taught 32 residents, drawn from a number of communities across the Jabal Nafusa, basic site documentation skills using the standard Department of Antiquities forms, GPS units, and cameras. Data were processed using Excel, Google Earth, and Picasa in a computer lab that had been donated to a local women's centre by the United States Agency for International Development (USAID). Participants practised documenting buildings in the old city of Yefren and archaeological sites in Suffit. The course identified future volunteer assistants for Department of Antiquities site documentation inspectors in the region. It was also an important opportunity to engage DoA employees with local citizens in the communities in which they do their work and to promote civic involvement in the protection of cultural heritage.

5. National Centre for the Documentation and Digitalization of Libyan Heritage (NCDD)

The enthusiasm engendered by these three courses and the success of the outreach training in the Jabal Nafusa fomented the creation of the DoA's National Centre for the Documentation and Digitalization (NCDD) in Tripoli. The NCDD's mission was to collect, enter, organise, manage, administer, and share data and information regarding the archaeological sites of Libya, to enable the DoA to protect and manage the heritage of Libya. The NCDD's plan was to recruit, train and support a national team of employees from the Department of Antiquities who would collect and administer the site data that was placed in a central database. The NCDD would also facilitate the exchange of archaeological site information between different branches of the Department of Antiquities, as well as the regional offices of the Department, and other governmental agencies.

The NCDD also was in charge of organising field-work in Tripolitania and would assist in the coordination of training and field surveys in Cyrenaica through the auspices of a new regional Center for Archives, Documentation and Registration in Shahat. During the last six months of 2013, the NCDD conducted a number of field projects and made significant modifications and updates to data collection and management protocols. The NCDD also was active in promoting its work through many local and regional media outlets, including both radio and TV, as well as visiting educational institutions and giving lectures to educate Libyans on their cultural heritage.

Three workshops in GIS and remote sensing were offered to employees of the NCDD by Dr Marco Nebbia (Durham University) with the support of Dr Muftah Haddad (Tarhuna University), by Durham University (Dr Anna Leone) and the Deutsches Archäologisches Institut (Rome Department – Dr Ralf Bockmann), with assistance from the American Mission, between the years 2013 and 2015.

In March 2014, the NCDD held a workshop (supported by the American Mission and UNESCO) to share news of its work with colleagues in other subdivisions of the DoA and allied institutions. A major topic of discussion was how to facilitate connections between those working on sites inventory and those beginning to work on objects inventory.

In 2016 the DoA Tripoli office replaced the NCDD with a newly reconstituted Survey Unit Office. The Tripoli DoA Survey Unit has the same mission and directives as the former NCDD, though, reflecting the contemporary political schisms in Libya, it no longer plays a direct role in the affairs of the Center for Archives, Documentation and Registration in Shahat.

6. Internships and workshops with allied institutions

In many cases, the needs of the DoA exceeded the core areas of competency of the American Mission. Fortunately, many other institutions, both in America and around the world, were dedicated partners in our mission, sharing their expertise in order to improve the capacities of the DoA.

a) American School of Classical Studies in Athens internships (2014)

Funding from the United States Embassy in Tripoli enabled two employees of the NCDD – Mahmoud Hadia, operations manager, and Elham Egdora, engineer and computer systems expert – to undertake a two-month residency at the American School of Classical Studies in Athens (ASCSA) in the spring of 2014.

During their time in Athens, they learned how to manage and curate digital archaeological data. Tarek Elemam, Information Systems & Technology Manager at the ASCSA and a Libyan citizen, oversaw their work. In addition, they visited other cultural institutions such as the Greek National Documentation Centre in Athens as well as archaeological sites such as the ASCSA's Athenian Agora and Corinth in order to observe best practices in data storage, data archiving, long-term preservation, and the access and reuse of digital data.

b) Arab Image Foundation, Beirut, and the Middle East Photograph Preservation Initiative (MEPPI) workshops (2015–16)

In January 2015, a group of Libyan museum personnel visiting New York (brought to the USA under the auspices of AFCP grant) met with Nora Kennedy, Sherman Fairchild Conservator of Photographs at The Metropolitan Museum of Art. She provided an introduction to the Arab Image Foundation in Beirut, Lebanon. This initiative subsequently offered a short training course to Mahmoud Hadia and Ziad Siala, who have been working in the Photo Archive of the Department of Antiquities in Tripoli to improve the basic conditions of these collections. The work is ongoing under their supervision. Libya's membership in the Getty Conservation Institute's MEPPI programme had lapsed and it was hoped that this individualised training would enable someone from the Tripoli Photo Archive to attend future MEPPI courses.

Over the course of four days (27–30 April 2015), the Arab Image Foundation provided these two individuals training in photograph preservation. There were sessions on photographic processes and how photographs can deteriorate as well as how to create a safe storage environment with appropriate climate control and archival quality housing materials. The training also included a discussion of common practices for building a storage space, maintaining an inventory, as well as the general workflow for processing collections. Because of this training, Libya is back on the MEPPI training list. Mahmoud Hadia subsequently attended the MEPPI workshop on 'The Environment, Exhibition and Storage of Photographs', on 9–20 November 2015 in Beirut, as well as the MEPPI May 2016 workshop on the 'Digitization of Photographs'.

c) Archaeological internships in the USA (2015)

From late June to September 2015, Oberlin College and the Cleveland Museum of Natural History sponsored a three-month internship for two Libyan archaeologists: Nasser Ali Abd Assalam al-Hrari, Inspectorate

of Benghazi, and Munsif Nasser Khattab Awad, Inspectorate of Shahat. These two split their time between various internship activities at Oberlin College, the Cleveland Museum of Natural History, and the Hopewell Culture National Historic Park.

These internships provided an opportunity for the two participants to receive specialised training in field archaeology and laboratory analysis through active participation in research programmes in prehistoric archaeology. They also received training at Oberlin College in GIS with members of the Oberlin College Geology Department and Dr Marco Nebbia of the University of Durham (UK) as well as training in photogrammetry, culminating in their design of a pilot project in site documentation for Ptolemais in Cyrenaica.

d) AMIDEAST management courses: Dec 2015 and July 2016

A course in 'Management Soft Skills' was held at AMIDEAST Tunisia in Tunis (2–30 December 2015). Eight DoA archaeologists from Cyrenaica participated in this course, which was intended to improve their leadership and communication skills as well as to develop a foundation of concepts and solutions to support the planning, scheduling, implementation, resource allocation, and performance measurement activities required for the successful completion of projects. The course was so successful that the Department of Antiquities requested a second course in human resource management.

This second course (11–22 July 2016) was held at AMIDEAST in Tunis for eight senior administrators (including the controllers of Leptis Magna, Sabratha, Jarma, Tocra, Tripoli, and Cyrene).

7. American Mission workshops

As political circumstances continued to deteriorate in Libya following the July 2014 attack on Tripoli's main international airport, international embassies and the United Nations mission withdrew their staff from the country, and security concerns prevented our return to the country. Since that time, the American Mission has focused on providing workshops for DoA staff outside of Libya, attempting to convey skills that are most useful in meeting an evolving set of challenges on the ground.

a) National museum emergency inventory (2015)

From 11 January to 7 February 2015, five DoA personnel with responsibilities for museums and store-rooms in Libya (Tripoli, Leptis Magna, Benghazi, and Shahat) visited the United States to consider best practices in museum management and to build

consensus about the critical steps necessary to protect Libyan museum collections at a time of deteriorating political circumstances. The AFCP and the Lounsbery Fund provided sponsorship for this programme.

Impact of activities: During their time in the USA, the group developed a plan to conduct an emergency inventory of museum collections and storerooms throughout their inspectorates. This plan included the design of an emergency inventory form, a first draft of a user's guide in Arabic, and a strategy on how to conduct training sessions upon their return to Libya. It was agreed that a follow-up workshop would be held in Tunis in the autumn of 2015 to report on the progress made in the inventory work.

b) Libyan heritage in times of crisis: mitigation workshops (2015–16)

The funds for a follow-up workshop for the 2015 museum emergency inventory initiative were made available by a grant from the US State Department Bureau of Near Eastern Affairs. This grant, awarded in September 2015, was intended to support a series of workshops organised to address critical cultural preservation and protection needs in Libya: museum inventory, looting and the illicit trafficking of cultural objects, advanced archaeological site documentation methods, and community engagement in the protection of Libyan cultural heritage.

c) Libyan national museum inventory in times of crisis (2015)

The museum emergency inventory follow-up workshop was held in Tunis from 28 November to 2 December 2015. It brought together four of the five participants from the January 2015 workshop, along with seven other staff from the museums sector who contributed to these inventory efforts. Reports were presented on the progress of their inventories. The workshop also was an opportunity to discuss issues of conservation and storage being encountered in this work and any needs for offsite protection and risk assessment. Taher Ghaliya, Museums Director for the INP (National Heritage Institute of Tunisia), gave a presentation on the INP's museum database to the group.

Impact of activities: Participants reported that, during the intervening ten months since their last meeting in the United States, inventory training activities were held at a number of museums and storerooms throughout Libya. Following this training, small teams began to conduct emergency inventory at fifteen different museums and storerooms around the country.

d) In Tripolitania, emergency inventory training courses were held in Tripoli, Leptis Magna and Sabratha

These courses typically lasted several days, with both theoretical and practical components, and involved groups of seven to fourteen DoA staff. At the conclusion of these training sessions, a smaller group continued emergency inventory work in museums and storerooms as far west as Sabratha and as far east as Misurata.

Impact of activities: Deteriorating internal security conditions prevented any member of the emergency inventory team from working directly with representatives of the Jarma Inspectorate in the south of the country. However, members of the Tripoli team were able to communicate with two of their colleagues in Jarma by phone, email and Facebook, to help facilitate emergency inventory efforts in this way. One of the DoA staff in Jarma had participated in the 2012 Leptis Magna training course and was able to provide the critical connection to get the work done. This team, despite being one of the smallest, produced the largest number of inventory records and should be especially commended for its efforts.

e) Inventory training courses were also held in Benghazi and Tocra

These courses drew heavily on the assistance of faculty from the University of Benghazi and benefited from space donated by local civil society groups and schools. Participants included both DoA staff as well as volunteers.

Impact of activities: The Tocra training in particular targeted members of the Benghazi Inspectorate field offices, and included staff from the offices in al-Marj, Ajdabiya, and Kufra. Emergency inventory training in Shahat resulted in the creation of small teams in both Shahat and Sousa, where inventory work is ongoing.

Overall impact of training on museum inventory: The total estimate for the national holdings for the Libyan Department of Antiquities is approximately 100,000 objects. This estimate is low as it is based on the assumption that a grouping of objects that are similar (such as a hoard of coins or a collection of pottery sherds) will be treated as a single object or entry in the inventory. The total number of objects in the final inventory will be much higher.

Out of this approximate total, the inventory teams have created entries for a total of 4,703 objects to date. The road ahead of them is long, yet they have made significant progress on some of the most prominent collections in the country. According to

the plans that they established in early 2015, they will prioritise museum collections and then begin to inventory storerooms.

f) Advanced site documentation (GIS/remote sensing and photogrammetry)

An advanced site documentation workshop was held in Tunis (31 January–12 February 2016). Ten Libyan participants (from Tripoli, Zliten, Benghazi, Shahat, and al-Marqub University) attended. In addition to the core team, instructors included Zaid Alrawi, an Iraqi archaeologist and graduate student at Penn State University and Timothy Schilling from the Midwest Archaeology Center of the US National Parks Service.

The workshop was intended to strengthen and disseminate GIS skills among a larger group of DoA staff and to build upon the work begun in previous courses, including a review of data collected to date and continued work on risk assessment mapping of critically threatened areas in Libya. New training in photogrammetry was designed to teach the basic principles of 3D digital documentation of objects and landscapes for the documentation and preservation of Libyan cultural heritage. This workshop was taught completely in Arabic and emphasised understanding of the concepts of GIS and its application to archaeology and cultural heritage management rather than concentrating on how to use the software. Special emphasis was given to the identification of projects that could be carried out by the participants on their return to Libya. Participants engaged in discussions after lectures on various aspects of GIS applications and were asked to consider how this approach might be useful in their archaeological work. As a final project, each participant designed their own GIS project and gave a presentation to the entire group. These projects served to evaluate each individual's overall comprehension of the ArcGIS software and what they learned in the workshop.

In conjunction with Tim Schilling of the National Parks Service, part of the group who were less skilled in GIS began to train in the techniques of photogrammetric capture and processing. Drawing on the draft user guide developed during previous photogrammetric training at Oberlin College in the autumn of 2015, the group began to document subjects at various scales ranging from archaeological objects to historic structures and to learn the basic processing steps of adding photos, aligning photos, building the sparse cloud, then building a dense cloud, next building a mesh, and finally building a textured skin for the 3D model. They learned about various options for exporting

finished data from Agisoft Photoscan Pro and they each created accounts on Sketchfab, permitting them to share models on social media platforms like Facebook.

In order to evaluate the understanding of each individual, the trainees were asked to capture and process a data set of a simple object within the hotel. Their final task was to shoot this object and use the photogrammetry software to assign it a scale, evaluate the general level of error, build the dense cloud/mesh/texture, and upload the result to Sketchfab. All participants successfully accomplished these tasks.

Impact of activities: On their return to Libya, participants held workshops in Benghazi and Tripoli to teach the basic elements of ArcGIS and photogrammetry to other DoA staff. All participants were able to master basic concepts in this two-week workshop, but they certainly would have benefited from more time concentrated on both skill sets. The learning curve for ArcGIS is steeper than that for Agisoft Photoscan. More time is required to work with the ArcGIS software to establish a basic level of familiarity. The photogrammetry training, on the other hand, could benefit from more time spent working to increase the quality of photographs and basic camera literacy for DoA staff. The teaching of ArcGIS continues to be a work in progress. Only a few individuals have had the opportunity to attend GIS workshops and these have been both short in duration and scheduled at long intervals apart. In addition, lack of hardware and software and of appropriate projects to practise working on have also hindered the participants' progress when they return home. They have to continue to work with the software to become proficient in it.

One recent promising development is the offering of courses in ArcGIS by the Centre for Archaeological Research and Studies (CARS) at Omar al-Mukhtar University in al-Bayda. In-country teaching of this software is the most efficient way to reach larger numbers of DoA personnel and these efforts should be encouraged.

No matter who is training DoA personnel, the issue remains that those who have had the opportunity to learn ArcGIS must continue to demonstrate that they find the tool useful for their work. More importantly, they need to pass along enough of the rudiments to others so an increasingly broad pool of individuals can at least access and use the information stored within the geodatabase files. Workflows need to be established so that employees near the two primary map archives in Shahat and Tripoli can work to digitise and to georeference historic

maps and site plans, extract site data whenever possible, and then share this information with the branch offices for eventual field verification. Simultaneously, they should be trained to take a time series of historic Google Earth imagery to track the urban encroachment in and around a number of well-known sites. Ultimately, many DoA employees may decide that they are more comfortable working with other readily available tools like Google Earth, leaving the work on ArcGIS to a smaller pool of employees who have spent more time familiarising themselves with the programme.

Further developments required

Ways must be found to continue to increase the capacities of DoA employees as they begin to work with 3D data sets. The processing of photogrammetric data sets may be best concentrated in locations where data management infrastructure is strongest. While training will continue on the ground, processing will be limited by the availability of the software. Given the state of existing resources, it is important that workflows be established in which employees with access to more powerful computers for rendering and appropriate software will continue to process and archive the photo series which they capture themselves as well as the photo series of other employees who have been trained in photogrammetric capture, but lack the resources to render 3D models.

Existing resources will not allow the currently trained groups to grow much beyond their present capacity. The twelve computers (six associated with a site documentation kit in Shahat and six associated with another kit in Tripoli) supplied by the American Embassy for training purposes cannot meet the needs of a much larger group than the one that was trained recently in Tunis. Those offices which have technology resources are often reluctant to share them with other offices. While some amount of training may continue in the east or the west to introduce a broader pool of individuals to geodatabase or photogrammetry skills, these efforts will only be useful if these trainees receive the tools and support they need to carry on with real work at the conclusion of the training period.

All participants were committed to learning these new methods and techniques. At the end of the workshop, they realised that what they learned can be a great benefit to their archaeological work, especially in the areas of site documentation and detection of threats to archaeological sites. Their individual projects gave them confidence in their ability to plan and implement actual work when

they return home. To continue to work and to train others will be critical not only to the improvement of individual skills but also to the ultimate success of getting this information mainstreamed into DoA activities. To that end, future workshops should promote the development of teams and team-based projects to encourage their ability to work together in groups.

g) 'Illicit Trafficking of Antiquities' workshop

This three-day workshop began at the British School in Rome and continued at the American Academy in Rome (29 February–2 March 2016). Instruction was provided by representatives of the FBI Art Crime Team, the US National Parks Service, and the Comando dei Carabinieri per la Tutela del Patrimonio Culturale (TPC). In addition to the ten workshop participants (Tripoli, Leptis Magna, Zliten, Shahat, Sousa, al-Bayda, and Jaghboub) representatives of ICCROM, UNIDROIT, and the Italian Roma Tre Archaeological Mission in Libya also attended parts of the workshop.

Under the auspices of UNESCO, DoA personnel have previously received training outlining the basic standards of documentation for reporting missing antiquities as well as the tools of interdiction available to INTERPOL and customs authorities around the world. This workshop was intended to reinforce and build upon the information gained from the UNESCO workshops.

The workshop began with presentations by the Libyan delegation of status reports from different parts of the country. Then representatives of the FBI Art Crime Team, the US National Parks Service, and the Comando dei Carabinieri TPC gave overviews of how looting investigations can be conducted and provided in-depth examples of successful cases that they have helped to solve. The TPC also gave a comprehensive overview of their database system, as well as the process that they use to investigate sales of potentially illicit goods on the Internet. They provided advice about the kinds of information that they would need from the DoA in order to proceed with an investigation.

Impact of activities: They emphasised that one of the most important steps the DoA should take to protect its collections is to take high-quality photographs of each object in their care and to keep this photographic documentation well-organised in order to rapidly report any cases of theft. The goal would ultimately be to create a catalogue of images of 'objects under suspicion'. This catalogue, likely to take the form of a web-accessible database controlled by the

DoA, would provide a valuable supplement to the general descriptions provided by the ICOM Red List, and would be an important contribution towards undermining the international market in looted Libyan antiquities amongst good faith buyers.

b) 'Introductory Cultural Resource Protection' training course

This workshop, held in Tunis (17–22 October 2016), was a follow-up to the Rome workshop held in the spring of 2016. The recommendations from the Rome workshop included a request on the part of the DoA to develop multidisciplinary teams of law enforcement personnel and archaeologists who could work together to combat illicit looting and trafficking within Libya. This workshop brought together eight Libyan law enforcement personnel (Tourist Police and Customs officials) and eight archaeologists (from both Tripolitania and Cyrenaica) to work with instructors from the US FBI Art Crime Team and Homeland Security Department and the Italian Comando Carabinieri TCP to learn basic principles of crime scene investigation through a series of practical exercises. A Libyan lawyer and judge provided a discussion of Libyan antiquities law and information on court procedures. This was the first time that these two groups had been brought together to work on the problem of illicit trafficking and looting. It was a beneficial experience for all participants. They decided at the end of the workshop to organise a country workshop in the near future for more law enforcement personnel as well as to submit a formal request to relevant parties for more out of country training to develop a specialised art crime police force in Libya.

8. Future workshops

In conjunction with the award of a new AFCP grant in 2016 for the DoA Photo Archives in Tripoli, two capacity-building programmes are planned in 2017 to provide training in conservation for working on damaged photographic material; the digitisation of photographic archival material; collections management; and database development.

9. Reflections on our work

Reviewing the progress of our capacity-building work over the past ten years, some general observations may be made. As stated earlier, we began our work in 2005 with a much diminished DoA, an organisation that bore little resemblance to the capable partner that had facilitated the work of the American Mission in the 1970s. The political embargo of the 1980s and 1990s had greatly reduced

Libya's ability to engage with the world and the effects of sustained governmental neglect, most visible in the lack of a reliable operating budget, had led to degraded and badly out of date infrastructures and greatly reduced and poorly trained staff.

In general, the Gaddafi government expressed a disinterest in any pre-Islamic cultural heritage, an attitude which did not allow the DoA to be an effective advocate for all of the historic and archaeological sites that they had a mandate by law to protect. While the Gaddafi government expressed occasional flashes of support for the premier sites inscribed on the UNESCO World Heritage List, these efforts were often intended to make a political statement or provide an opportunity for Libyan government agencies and foreign consultants to do planning projects that were profitable for both parties. Many of these planning schemes gathered sound background information and produced useful documentation, but few reached any phase of implementation.

Unfortunately, such planning activities were often marred by unrealistically short timetables, a lack of consultation with appropriate stakeholders in the initial planning stages, failure to use consultants properly, and a top-down vision for how implementation might occur. In many cases, due to internal Libyan politics as well as the overlapping interests of international agencies, these planning schemes were reduplicative. Therefore, it is in some sense fortunate that most of these efforts lacked the funding sufficient to implement the broad changes proposed to transform sites around the country. Nevertheless, the research and documentation that went into these studies will provide a solid starting point for future efforts in the same vein that will hopefully adopt a more consultative approach.

Given these constraints prior to the Revolution, it was impossible for the DoA to engage in any type of long-range planning or to train employees in contemporary best practices to manage Libya's cultural heritage. In the aftermath of the Revolution, there have been a number of experts' meetings and conferences, providing opportunities to examine the gaps and needs of the DoA and to call for action plans. One regularly occurring recommendation for a future DoA is the creation of a well-organised programme of capacity building and human resource development, as stated, for example, in the 2013 report on the workshop on 'Libyan Heritage in the Digital Age, the first step' (10–13 February 2013) sponsored by the World Bank (Multi Donor Trust Fund for Cultural Heritage and Sustainable Tourism) and the Department of Archaeology, Libya:

We recommend that the Department of Antiquities manages Libya's cultural heritage with modern, proven information technology systems that are stable and sustainable and with staff that are trained to use those technologies effectively.

The workshop focused its attention on four areas: archives including maps and photographs; archaeological sites; artefacts in museums and storage; planning and strategic management. In all four areas common themes were evident:

There is a need for fully trained Libyan project managers to implement the recommendations. Appropriate finances, facilities, equipment and support will be essential for archaeologists, archivists and museum professionals to protect Libya's heritage for future generations. Key to this is the development of geospatial databases (GIS) for cultural resource management, the adoption of databases for museum and archive use, and the development of data standards and thesauri.

The aim of creating 'stable and sustainable' technologies and 'staff trained to use those technologies effectively' has been our abiding goal, even if one that we have yet to completely realise.

The recommendations stemming from our own workshops have been much in line with the one from the World Bank workshop, emphasising the need for:

- ongoing training in documentation and digitisation
- creation of databases for sites and objects that can be integrated into a modern cultural heritage management system, i.e. a National Heritage Environmental Record (HER) database – a comprehensive digital record of a country's known archaeological sites, built heritage, and designated landscapes
- creation of a unified glossary for archaeological terms that can be applied to all inspectorates and sub-offices in three languages (Arabic-English-Italian) as well as unified geographical naming conventions in collaboration with local and foreign experts
- creation of a database of archaeological objects that are missing or stolen, supplying authorities with sufficient information to facilitate their return
- involve and support all field offices and inspectorates in the task of inventory of sites, museums and storerooms
- deepen the relationship between the Department of Antiquities and the Libyan universities and security apparatus as well as foreign universities and Interpol.

Our projects have been relatively small in scope and grounded in individual inspectorates where we

have seen success primarily on an individual level. The DoA continues to lack a sufficient number of well-trained and well-motivated employees who share a sense of common mission and are able to work effectively in groups. It has been much more difficult for us to motivate and to keep larger groups engaged in productive work, partly due to lack of sufficient finances and equipment, partly due to DoA internal politics.

Unfortunately, the national-level work we have done (such as the creation of the NCDD) has not achieved the long-lasting results we had hoped for due to the current political divisions within Libya. Not only is the DoA divided regionally, but in many instances it is also divided within a particular inspectorate. When taken as a whole, the DoA is much less than the sum of its collective parts. Team work is not a quality that was encouraged by the Gaddafi regime, and this continues to be a glaring fault that obstructs every aspect of our work. Some of the most fundamental plans will only succeed if the DoA manages to develop a sense of collective purpose and to learn to work together as a collective team. The institution could benefit from activities that move members toward such collective work and a sense of shared mission.

We have also noticed that the DoA is very hesitant to seek assistance beyond its own personnel, getting the help they need from others working in other government offices, universities, NGOs, or private businesses. While such outreach has happened on an occasional basis, it is typically the result of personal connections, not official ones. Certain regions are more open to doing outreach than others: Tripolitania is in general more open to this than Cyrenaica (with the exception of Benghazi). The prospect of organising more in-country training schemes such as those currently being organised by the Centre for Archaeological Research and Studies at Omar al-Mukhtar University in al-Bayda is encouraging. The more that Libyan experts can be engaged in capacity-building work in order to reach more persons needing the training, the better.

The cultivation of programmes to engage youth in DoA outreach activities should be encouraged. We have seen our greatest successes when working with younger DoA employees or university students who have occasionally been included in our training activities. They are the future workforce for the DoA and every effort to include them in projects should be encouraged. This point was underscored in 2003 in Boccardi's UNESCO Mission report:

Last, but not least, the Department of Antiquities should devote special attention to fostering activities

aimed at raising the awareness of local communities, especially the youth, on the importance of the World Heritage sites and the need to protect them. In the long-term, this seems the only sustainable way to address the potential conflict between development and heritage conservation in a country characterised by a booming demography and rapid economic expansion.

In summary, we believe that while our locally based capacity-building initiatives have created some momentum, the DoA could benefit from a more intensive and extensive training programme. Such a scheme would be a modern version of the one that Richard Goodchild initiated in the 1960s, in which selected individuals received training and a diploma or a certificate in a specialty and then returned to Libya to train others. If coordinated properly and jointly supported by the DoA and outside organisations working together, this might create the core of specialists needed to bring new technologies into the DoA in a sustainable manner. It would also demonstrate to the DoA how a shared mission and teamwork can achieve bigger and better results. We very much hope that such a programme can be organised and funded in the near future. Our brave Libyan colleagues face a daunting task in their work to protect the remarkable cultural heritage of Libya from the many threats that currently endanger it. They have proven their dedication and capacity to learn and they deserve all the support that the global community can offer.

Appendix

American Mission grants summary:

2005

‘Preservation of Archaeological and Photographic Collections at the Ancient Greco-Roman Site of Cyrene’ – US Ambassadors Fund for Cultural Preservation (AFCP), US Department of State, Washington, DC.

Equipment and software for the computer laboratory at the Department of Antiquities (Shahat) – Global Heritage Fund, Palo Alto, CA.

2008

Equipment for the Department’s computer laboratory, English-language and computer lessons, and stabilisation of the retaining wall at the extramural Sanctuary of Demeter and Persephone in the Wadi bel Gadir – US Department of State.

2010

‘Documentation and Training in the Management of Archaeological Collections at the Ancient Greco-Roman Site of Cyrene’ – AFCP, US Department of State, Washington, DC.

2012

‘Documentation and Assessment of Cyrenaican Archaeological Sites’ – AFCP, US Department of State, Washington, DC.

Mission to Libya to assess the status of government policies, programmes, and facilities for the protection and use of cultural and natural heritage – Lounsbery Foundation, Washington, DC.

‘Documentation and Assessment of Tripolitanian Archaeological Sites’ – AFCP, US Department of State, Washington, DC.

2013

Twelve laptop computers for training kits for Tripolitania and Cyrenaica – US Embassy to Libya.

2015

‘Libyan Heritage in Times of Crisis: six mitigation workshops’ – Bureau of Near Eastern Affairs, US Department of State.

2016

‘Documentation and Safeguarding of Archaeological Excavation and Other Photographic Collections of the Red Castle in Tripoli’ – AFCP, US Department of State, Washington, DC.

Additional support:

In addition to the grants described above, the American Mission has received support from the institutions of its staff and private donors.

Notes

1 These training activities have been carried out by a small group of individuals. The core team is comprised of Susan Kane, Sam Carrier, William Reynolds, and Ziad Siala. Other instructors have included Oberlin College alumni Catherine Winter (English instruction) and Austin (Chad) Hill (photogrammetry), as well as Tarek Elemam (Information Technology Manager, American School of Classical Studies at Athens), Zaid Alrawi (PhD student in Anthropology at Penn State University), and professionals from the Objects Conservation Department of the Metropolitan Museum of Art, the US National Parks Service, the Cleveland Museum of Natural History, the World Monuments Fund, the FBI Art Crime Team, the US Department of Homeland Security, and the Comando dei Carabinieri per la Tutela del Patrimonio Culturale. A number of Libyan colleagues from the Department of Antiquities have also had supervisory roles in our training work.

2 Infrastructure improvements include the installation of electricity and a new roof for the DoA Shahat Library; creation of a computer laboratory for DoA Shahat; renovation of an old building and construction of a new one to create a new Archives Centre for DoA

Shahat; support of the renovation of a space to become the offices of the DoA Survey Unit and Documentation Centre for DoA Tripoli; and improvements to the DoA Tripoli Photo Archive (air conditioning and climate control).

References

- White, D. (ed.) 1984. *The Extramural Sanctuary of Demeter and Persephone at Cyrene, Libya I: D. White, Background and Introduction to Excavations*. Philadelphia.
- White, D. (ed.) 1985. *The Extramural Sanctuary of Demeter and Persephone at Cyrene, Libya II: G. Schaus, The East Greek, Island, and Laconian Pottery*. Philadelphia.
- White, D. (ed.) 1987. *The Extramural Sanctuary of Demeter and Persephone at Cyrene, Libya III: S. Lowenstam, M. Moore, P. Kenrick, and T. Fuller, part 1: Scarabs, Inscribed Gems, and Engraved Finger Rings; part 2: Attic Black Figure and Black Glazed Pottery; part 3: Hellenistic and Roman Fine Wares; part 4: Conservation of Objects*. Philadelphia.
- White, D. (ed.) 1990. *The Extramural Sanctuary of Demeter and Persephone at Cyrene, Libya IV: P. Gregory Warden, Andrew Oliver, Pam J. Crabtree, and Janet Monge, part 1: The Small Finds; part 2: Glass; part 3: Faunal and Human Skeletal Remains*. Philadelphia.
- White, D. (ed.) 1993. *The Extramural Sanctuary of Demeter and Persephone at Cyrene, Libya V: D. White, The Site's Architecture, its First Six Hundred Years of Development*. Philadelphia.
- White, D. (ed.) 1997. *The Extramural Sanctuary of Demeter and Persephone at Cyrene, Libya VI: T. Buttrey and I. McPhee, part 1: The Coins; part 2: Attic Pottery*. Philadelphia.
- White, D. (ed.) 1999. *The Extramural Sanctuary of Demeter and Persephone at Cyrene, Libya VII: A. Kocybala, The Corinthian Pottery*. Philadelphia.
- White, D. (ed.) 2012. *The Extramural Sanctuary of Demeter and Persephone at Cyrene, Libya, Final Reports, Volume VIII: D. White and J. Reynolds, The Sanctuary's Imperial Architectural Development, Conflict with Christianity, and Final Days*. Philadelphia.