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CONSERVING AND MANAGING MOSAICS IN LIBYA (CaMMiL): A NEW COLLABORATIVE PROJECT *

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When I wrote the abstract for this ICCM conference, I intended to reflect on a short project entitled *Conserving and Managing Mosaics in Libya (CaMMiL)*, which was due to take place during 2011. CaMMiL’s primary objective was to raise awareness amongst site-controllers, archaeologists and technicians of contemporary approaches to mosaic conservation and site management. It would achieve this during three visits to Libya, a reconnaissance trip in April followed by two workshops between May and September 2011. Circumstances were to radically alter these plans, but I am pleased to be able to report on the project and our recent evaluation trip.

CaMMiL was developed in collaboration with the Libyan Department of Antiquities, Hafed Walda of King’s College London and John Stewart of English Heritage, with the input of colleagues from various international institutions including Jeanne Marie Teutonico of the Getty Conservation Institute. It is funded by the Getty Foundation and intended as a “practical solution” to the “real problems” that the Department has been facing, in particular a lack of trained personnel to effectively protect and manage their heritage in general, and their mosaics more specifically.

Libya now: the recent past and present

In February 2011 the uprising against Gaddafi’s regime began and his death on 20th October marked the transition from dictatorship to democracy; power is now in the hands of the National Transitional Council who are responsible for the holding of
democratic elections in July 2012. These will result in the formation of a national assembly who will draft a new constitution upon which there will be a referendum. The Libyan Department of Antiquities remains the custodian of the country’s heritage which includes some of the most significant archaeological remains in the world.

In late 2011 there were two missions to assess the state of Libya’s antiquities, both collaborations between the Blue Shield and the International Military Cultural Resources Work Group (IMCRWG). The first, in September, was concerned with Tripolitania,\textsuperscript{1} and was followed by a visit to Cyrenaica in November.\textsuperscript{2} The published reports, co-authored by one of the CaMMiL project team, highlight important initiatives undertaken by the Department’s staff often with the support of local people. They include individual and collective acts of courage and offer examples of good practice whether the creation of inventories, the movement of objects into store, the sealing of museum entrances or the setting up of watching briefs.

In general it seems that damage to sites in western Libya was limited. Signs of small-arms and anti-aircraft fire are visible on some monuments; offices were occasionally looted and perimeter fences destroyed. Antiquities in the east have suffered more. There were illegal excavations and looting, including thefts from museums. There are two immediate concerns related to mosaics. At Ptolemais, the house of the Polish Archaeological Mission is occupied by armed squatters.\textsuperscript{3} Therefore the Blue Shield and IMCRWG team were unable to access the property, where some of the finds are

\textsuperscript{1} The mission report is available online at \url{http://www.blueshield.at/libya_2011/09-2011/mission_report_libya_09-2011.pdf} (accessed April 2012).


\textsuperscript{3} This continues to be the case in April 2012.
stored including mosaic fragments from the upper storey of the House of Leukaktios.\textsuperscript{4} At Cyrene the Seasons mosaic in the House of Jason Magnus was vandalised by the removal of Spring and Winter from the spandrels (figs. 1-2).\textsuperscript{5} This action was reported as taking place during the revolution but may have happened a couple of days preceding it. Such a destructive theft is particularly deplorable and is hoped to be an isolated occurrence.

Although free from dictatorship, Libya faces systemic problems that need addressing. In an article written before the uprising, Paul Bennett and Graeme Barker summed up the situation: “The incredible pace of change, the potential impact of development on heritage assets and the weakness of the state heritage infrastructure have all the makings of a “perfect storm” regarding the threats to Libya's archaeological heritage. There is a desperate need to bring forward a new generation of Libyan curators and archaeologists to strengthen the capacity of the Department of Antiquities to protect and manage the country's cultural heritage resources effectively in the face of threats that are on an unparalleled scale.”\textsuperscript{6} These issues risk being further exacerbated as the country enters a volatile post-conflict period, a time of increased danger due to the availability of weapons, the presence of armed militias and continued political instability.

**Conserving and managing Libya’s mosaics: some background and context**

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\textsuperscript{4} Mikocki 2005; 2006; 2010, 188-190, figs. 8-9; Chmielewski forthcoming.

\textsuperscript{5} Mingazzini 1966, 80-81, pls. XXX.1, XXXII.1-2; Bonacasa and Ensoli (eds.) 2000, 96-99 including a colour image of Winter on p. 98.

\textsuperscript{6} Bennett and Barker 2011, 20.
Concerns about the state of Libya’s mosaics have previously been voiced. Enrica Foschi, for example, draws attention to the continued use of out-dated conservation techniques and inappropriate materials at Sabratha which have resulted in the degradation of the mosaics, a situation made worse by large visitor numbers and open access. She calls for new evaluations, conservation methodologies, treatments and maintenance. A more devastating combination of now-defunct conservation techniques, a desire to display the mosaics outside and no system of monitoring can be seen in Benghazi (fig. 3). During the 1970s rescue and more systematic excavations took place at the Turkish cemetery of Sidi Khrebish when part of the ancient site of Berenice was exposed after a decision to develop the area. Thirty-four tessellated pavements, one emblema and at least one opus sectile floor were uncovered, some of which were then lifted, re-laid onto concrete reinforced with iron and moved together to form a new suite of pavements. Comparison to the published excavation photographs shows the rate of deterioration, while recent photographs indicate its acceleration in some cases (figs. 4-5).

The severity of the situation at many Libyan sites – the Villa of the Nereids at Tajourah is particularly critical (fig. 6)– demands swift and decisive action. Any remedial work, however, should be part of a wider programme of condition assessment so that the Department can make informed decisions about the allocation of funds at local, regional and national levels based on an understanding of the scale of the problem. This will not only require time and specialist knowledge but also

7 For example Witts 1993, 27; Foschi 2003; Bennett and Barker 2011, 16-17.
9 Lloyd ((ed.) 1985, 11) mentions that prior to their excavations the Department of Antiquities had been involved in the lifting of two mosaics found at the entrance to the Turkish cemetery in 1965. For the pavements excavated in the 1970s, see the catalogue entries in Michaelides 1998.
10 For example compare figs. 4-5 to Michaelides 1998, Cat. No. 16, figs. 39-45, Col. Pls. II-III, and Cat. No. 25, figs. 62, 75-87, 89, Col. Pls. IX-XV.
innovative solutions; John Stewart’s proposal to train site managers and archaeologists to undertake rapid surveys, for example, could be usefully tested.\textsuperscript{12} During this process appropriate long-term preventive measures should also be identified.

An initial survey of lifted mosaics in Libya has already been completed. This was done in association with Mosaikon and authored by Catherine Antomachi and Gael de Guichen with the aid of Aicha Ben Abed and Adel El-Turki.\textsuperscript{13} It’s purpose was to record their “quantity, location, support type, and conservation condition”, in order to understand the extent of the problem and to provide tangible solutions, whether the identification of specialised training needs or the development of new backings from affordable and locally-available materials.\textsuperscript{14}

Their assessment shows that Libya does have a reasonable amount of lifted mosaic including 1,753 sq. m in museums, of which 480 sq. m has been re-laid on concrete-based supports, 1,564 sq. m is exhibited in galleries and 135 sq. m outdoors.\textsuperscript{15} These numbers, however, are significantly smaller than countries such as Algeria, Syria, Tunisia or Turkey, especially in terms of re-laid mosaics.\textsuperscript{16} Importantly their project will include an online database “to facilitate the collection, sharing and analysis of the survey data”. As there is no catalogue of Libyan mosaics, this review represents an

\textsuperscript{12} Presented as a paper at the 11th ICCM conference at Meknes, “An Approach to the Management of Mosaics through Preliminary Condition and Risk Assessment”.

\textsuperscript{13} Presented as a poster at the 11th ICCM conference at Meknes, “Mosaikon regional survey of lifted mosaics: a planning and learning tool”.

\textsuperscript{14} Research into new backing materials is in progress at the Getty Conservation Institute, as reported in a paper at the 11th ICCM conference at Meknes by Jeanne Marie Teutonico on behalf of the Mosaikon partners, “Mosaikon: An Update on a Regional Program for the Conservation of Mosaics in the Mediterranean (2008-2013)”.

\textsuperscript{15} The total amount in museums (1,753 sq. m) equates to about a quarter of a regulation football pitch (7,140 sq. m).

\textsuperscript{16} Tunisia, for example, has 6,377 sq. m of re-laid mosaic.
important step forward in the Department’s ability to manage the lifted mosaics and monitor their condition.

The mosaics of Tripolitania and Cyrenaica have attracted significant academic interest throughout the 20th century. As a result extensive documentation already exists in publications as well as in unpublished archives belonging to the Department. All such documentation, including any new condition assessments, needs to be consolidated, integrated and centralised while remaining available to, and able to be updated by those involved in their management and conservation. Such a resource – a 21st century corpus? – should be undertaken in conjunction with a national sites and monuments record so that Libya’s heritage can be properly assessed, monitored and safeguarded against the growing pressures of development in both urban and rural contexts.

Construction has already happened near, and on sites of archaeological importance and development continues to be a significant problem following the uprising. Although legislation exists it has been rarely used and could be better prosecuted with a sites and monuments record in the hands of a strong Department. A sense of responsibility among the general public could be simultaneously engendered via a programme of education across the country aimed at building awareness of, and pride in Libya’s heritage. There are instances of public engagement being undertaken by

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17 Although there is no single bibliographic resource, one could easily be assembled, starting with the volumes of the Bulletin d’Information de l’Association Internationale pour l’Etude de la Mosaïque Antiquité, published since 1968, and following the references therein.
18 For example, Ward-Perkins and Toynbee (1949) speak of important documentation in the Department’s archives detailing the excavation, consolidation and restoration of the Hunting Baths at Lepcis Magna in the early 1930s, while Foschi (2003) mentions records surviving from the restoration work at Sabratha between 1927 and 1959.
19 Bennett and Barker 2011, 14-20.
20 Apollonia is just one example, see Marzano 2006, 93.
foreign missions, for example by the international team excavating Benghazi’s other classical site, Euesperides.\textsuperscript{21}

The preservation of Euesperides has been threatened by the development of electricity substations, an illegal bus station and a shopping centre, the latter blocked by legal means.\textsuperscript{22} However, despite boasting some important pebble and tessera mosaics which contribute to our knowledge of the development of tessellation in the early 3rd century BC,\textsuperscript{23} the Lower City continues to be used as a rubbish dump (fig. 7).\textsuperscript{24} This not only affects the archaeology but also the rare \textit{sebkha} vegetation which is an important but endangered natural habitat.

Plans exist to turn the area into an archaeological park, thus demarcating the site, and to create a museum, both of which include significant educational elements.\textsuperscript{25} Such a vision of the future is crucial to the survival of this urban site and is echoed in an even more ambitious plan – the “Benghazi Urban Charter” – proposed by Medurb to create the “Venice of North Africa”. There are other exciting, and positive initiatives that have been developed over the last 10 years. These include the “Tripoli City Code” for the Medina Kedima, the Green Mountain Project for a sustainable future, and the five-year plan, sponsored by the World Bank, for the Department of Antiquities. Considerable thought and effort has gone into their production – collaborative initiatives between the Libyans and the international community – and they provide an important foundation for the future.

\textsuperscript{21} Marzano 2006, 91.
\textsuperscript{23} Wilson \textit{et al.} 2004, 155-158.
\textsuperscript{24} Marzano 2006, fig. 1; Wilson \textit{et al.} 2004, fig. 17.
\textsuperscript{25} Marzano 2006.
Capacity building is a crucial part of these plans and must be used to overturn the “chronic lack of state investment” since 1969.\(^{26}\) The importance of training has been recognised since the first meeting of the ICCM in 1977, becoming a regular feature of the conferences.\(^{27}\) As a result there is a growing body of published material on the aims and methods of recent training efforts with useful evaluations of their outcomes including reflections on making such projects more effective.\(^{28}\) In one case, the associated training manual has been made available online in three different languages, including Arabic.\(^{29}\) There is, however, still no major synthetic work bringing together the dramatic changes in conservation practice over the last 35 years, much of this knowledge remaining diffuse and inaccessible to many.\(^{30}\) Attempts are being made to collate bibliographic data but the efficacy of this depends on managers, conservators and technicians acquiring the appropriate publications, understanding the languages in which they are written and being able to apply the knowledge with appropriate adjustment to their own particular context.\(^{31}\)

Future work in Libya has much to learn from initiatives in Jordan, Palestine, Syria, Tunisia and Turkey. Their situations bear an uncanny resemblance, whether the low value of cultural heritage, the lack of educational programmes and public awareness, inadequate legislation and funding, or the pressures of rapidly deteriorating and

\(^{26}\) Bennet and Barker 2011, 16. Although they note the training done by Richard Goodchild in the 1960s.

\(^{27}\) de Guichen and Nardi 2008, 10-12

\(^{28}\) The proceedings of the 9th ICCM conference includes a chapter on the “Training of Conservation Practitioners” with four papers on training projects in the Middle East and North Africa.


\(^{30}\) de Guichen and Nardi 2008, 13.

numerous mosaics all with their own special set of circumstances.\textsuperscript{32} The challenges facing Libya are, in fact, international ones. In Turkey, for example, the absence of money, time and trained personnel results in unsatisfactory documentation and condition assessments as well as the continued lifting of mosaics without an appropriate infrastructure for storage and maintenance.\textsuperscript{33} Therefore professionals from Turkey and elsewhere continue to call for an international set of standards, whether guides to preventive conservation aimed at non-specialist conservators or codes for site management tied to legislation, and, above all, for specialist programmes for the long-term training of maintenance technicians and conservators.

Such training programmes have not existed in Libya and there has been no system for the monitoring and maintenance of archaeological sites. The critical situations found at Benghazi and elsewhere are unfortunate witnesses to this. As the problems become increasingly serious so the appropriate response becomes harder to formulate and requires more time, effort and money. Training is needed at all levels, from site-controllers to technicians, and should be used to build consensus of approach to ensure that out-dated methods are removed from the decision-making process. There is a lot to learn from work in Tunisia, whether the matching of participants’ profiles to the nature of the course or the tailoring of the teaching to the needs and backgrounds of the learners.\textsuperscript{34}

In Libya, as Bennett and Barker point out, it is desirable to identify and train the next generation of site-controllers, archaeologists, conservators and technicians. There are

\textsuperscript{32} Hamdan, Shaaban and Benelli 2008.
\textsuperscript{33} Presented as a paper by Hande Kökten at the 11th ICCM conference at Meknes, “Archaeological Sites with Mosaics in Turkey: Managing the Unmanageable”.
\textsuperscript{34} Roby, Alberti, Borguignon, and Ben Abed 2008.
some indicators that this process is beginning to happen. Libyans will be involved in
the next Mosaikon training courses for technicians and for curators, both run by the
Getty Conservation Institute.\textsuperscript{35} In addition the Department of Greece and Rome at the
British Museum has announced that they will select two Libyan curatorial staff to take
part in their International Training Programme.\textsuperscript{36} There are also important initiatives
underway by Luisa Musso of Roma Tre University at Lepcis Magna and the Villa
Silin in Tripolitania, and by Susan Kane of Oberlin College (Ohio) at Shahat (Cyrene)
in Cyrenaica.\textsuperscript{37} \textit{CaMMiL} is part of this momentum, belonging to a group of distinct
and complimentary efforts designed to help the Department during this challenging
post-conflict period and beyond.

\textbf{Piece by piece: reporting on \textit{CaMMiL} as it was originally conceived}

\textit{CaMMiL} was developed in 2010, at a time when Gaddafi was in power and, it was
assumed, would remain so for the foreseeable future. The project’s aim was simple: to
start bridging the gap in knowledge of up-to-date conservation practices and
management skills created during Libya’s long absence from the international stage.
This would be achieved via two five-day workshops forming an affordable, initial
effort to build capacity by providing foundation-level skills, new professional
networks and a context for the assessment of need. The knowledge gained could then
be expanded by joining training schemes offered by Mosaikon, the Getty
Conservation Institute or ICCROM.

\textsuperscript{35} This was announced during Jeanne Marie Teutonico’s talk in Meknes (see above n. 14).
\textsuperscript{36} This was announced by Lesley Fitton, the Keeper of the Department, at the “Libya Matters” conference at
King’s College London on 18\textsuperscript{th} February 2012. It is due to take place during summer 2012.
\textsuperscript{37} This initiative is supported by grants from the Ambassador Fund for Cultural Preservation from the U.S. State
Department and includes a training course for current staff -- taught by an Arabic-speaking cultural heritage
professional-- focused on modern international standards for site survey, monitoring practices, and cultural heritage
management. My thanks to Susan Kane for providing this information via email (29th March 2012).
We were to visit Libya on three separate occasions. A reconnaissance trip would involve discussions to evaluate the Department’s current situation, identification of participants and assessment of their knowledge levels. Our focus was on the decision-makers at sites and in museums, often archaeologists by training, but we also felt it important to create consensus by engaging those working at a technician level. At the same time we wanted to target Libyans at the early- or mid-stages of their career, who would be involved with the Department over the longer term and be responsible for its future management.

Once this assessment was complete, planning for the workshops would begin. The structure of both would start out being identical in content and coverage; repeating the programme ensured the same knowledge was disseminated across the country (fig. 8). Some adaptation, however, was expected in order to respond to issues specific to the area or participants. The programme was structured in three parts. On the first morning was scheduled a half-day round-table discussion with the top-level decision makers, the Chairman and his team. This was followed by a three-day workshop with the site-controllers and other archaeologists or scientists connected to the Department, the site or a university in the area. In addition, one-and-a half days were to be devoted to the technicians.

The sessions were broadly conceived to address different themes associated with mosaic conservation and site management via lectures, seminars and practical on-site classes. There were those specific to mosaics, such as ‘Materials, techniques and context’, ‘Documentation and recording’, ‘Condition assessment (on sites and in museums)’, and ‘Appropriate interventions, maintenance and monitoring’. And those
that dealt with issues related to mosaics and archaeological sites: ‘Mosaic conservation and management strategies’, ‘Making decisions for mosaics: sites and museums’ and ‘Risk assessment, site management and tourism’. They were to be delivered in English with Arabic translation, each session having a corresponding Arabic “hand-out” for reference both during and after the sessions.

The project team numbered seven, including three native Arabic speakers, who in addition to their own particular expertise, could support the Libyan participants by acting as role models and future contacts. At the end of each visit, team members were expected to report on their experience, information that would have been collated and presented to the Department. This document’s purpose was to offer a review of the current situation along with recommendations for the future. In the end, however, the project in this form never took place.

**Conclusions: a different CaMMiL?**

As I complete this paper, the project team – Hafed Walda, John Stewart and myself– has just returned from Libya. This trip, which took place in April 2012, evaluated the present situation there and raised awareness of the project among the Department’s staff and other interested members of the general public.

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38 The 2011 project team (in alphabetical order): Lotfi Belhouchet (Charge de Recherches, INP, Tunisia), Martha Demas (Getty Conservation Institute, USA), Niki Savvides (PhD student in Archaeological Site Management, UCL, UK), Isabelle Skaf (Freelance conservator and founding partner of Conservation SARL, Lebanon), John Stewart (Senior Architectural Conservator, English Heritage, UK), Hafed Walda (Senior Analyst, Research Fellow and Lecturer, KCL, UK), and Will Wootton (Lecturer in Roman Art, KCL, UK).

39 I would like to thank The Getty Foundation and the Department of Antiquities of Libya, including its Chairman, Dr Saleh Agab, and all its staff for all their support. Mustafa Turjman, in particular, was essential in the arrangement of logistics and I also offer my gratitude to Adel el-Turki who disseminated the programme, set up meetings and facilitated the presentations.
Over ten days we visited sites with mosaics along the Libyan coastline and delivered five presentations. The locations were chosen beforehand on the basis of their size, the presence of mosaics and the facilities available. In each case we met with the site-controller and their management team before the presentations to introduce them to the project, discuss the content of the presentations and any particular issues associated with the conservation and management of mosaics on their site or in the region.

The presentations usually followed the next day and were advertised in advance. We had prepared a single presentation, given at each site, which defined what a mosaic is, examined some of the problems associated with their conservation and management, and proposed some easy and effective solutions. The slides were translated into Arabic and hard copies were given to all those attending.

In total 121 people attended, coming from many different spheres: current and previous employees of the Department, staff and students of universities, and those with an interest in the local archaeology, including journalists. After questions and discussion, a form was circulated on which those attending could register their interest in participating in the subsequent workshops. This was done by a large percentage of those attending.

During and after the presentations there was considerable engagement. The opportunity for discussion elicited enthusiastic responses in the form of questions and comments. The issues raised will guide the format of the future workshops, although some of these problems are outside of our scope. In addition site visits took place
usually with members of the Department with whom we discussed recommendations for the conservation of problematical pavements. This also offered an opportunity to survey the exposed mosaics to gauge the problems being experienced as well as the didactic potential of the site to the workshops.

It became evident during our visit that planning and construction activity is having a significant impact on Libya’s archaeological heritage, including its mosaics. In particular, rescue excavation has become a core part of the Department’s work and therefore documentation and inventory were identified as necessary inclusions in the workshops. Two main conservation techniques were raised with regularity: reburial and treatment of mosaics with iron-reinforced cement backing. There is also an express need for advice on storage as well as the maintenance and renovation of existing cover buildings.

The project team is now planning the delivery of the two workshops, one in Tripolitania and one in Cyrenaica, which will take place during the next twelve months. The evaluation trip has highlighted a number of areas that are crucial to their success. The importance of the venue, selected on the basis of the quantity and availability of mosaics, their didactic value as well as logistical issues such as accommodation and lecture facilities. The format and programme of the workshops will be updated to respond to the needs of the region and aimed at the different groups of participants, still to be divided between site-controllers and their management teams, and the technicians.
Selection of the participants will be done in collaboration with the Department using the data we have collected and specially-prepared questionnaires translated into Arabic. Numbers will remain limited, around five to seven for the round-table discussions with the site-controllers and about fifteen for the technicians attending the lectures and practical activities. It will also be critical to identify appropriate project personnel. Who is chosen and their number will depend on the final curriculum of the workshops. A large percentage of the Libyan participants will speak only Arabic, so the inclusion of Arabic speakers is imperative as is good translation.

Libya is not alone in facing “real problems” in the conservation and management of its heritage. *CaMMiL* is designed to help the Libyans with “practical solutions”. It will achieve this by serving as a foundation to more formal training courses run by major international organisations and empowering Libyans in the conservation and management of their own heritage by giving them the confidence to make simple and sound decisions. The workshops will also help to establish and develop professional networks between Libyans and international experts, and in the process aid the creation of a robust plan for the future conservation and management of Libya’s mosaics. Libya is in a good position to benefit from the positive changes which have taken place in conservation techniques and training over the past quarter of a century. It is hoped that the application and integration of these new approaches in Libya will result in a well-managed heritage that will have important economic and social benefits by healing wounds, bridging divides and restoring a sense of national pride and common identity.

BIBLIOGRAPHY


Secretariat of Education, Socialist People's Libyan Arab Jamahiriya in collaboration with the Society for Libyan Studies, London.


FIGURES

Figure 1. Overview of the Seasons mosaic within its cover building, House of Jason Magnus, Cyrene. Photograph: W.T. Wootton.
Figure 2. Details of the removed spandrels, Spring to the left and Winter to the right, the Seasons mosaic, House of Jason Magnus, Cyrene. Photograph: W.T. Wootton.

Figure 3. Overview of the ancient site of Berenice, Sidi Khrebish, Benghazi. Photograph: W.T. Wootton.

Figure 4. Mosaic 16, below in 2005 and above in 2012, Sidi Khrebish, Benghazi. Photograph: W.T. Wootton.

Figure 5. Pavement 25, below in 2005 and above in 2012, Sidi Khrebish, Benghazi. Photograph: W.T. Wootton.

Figure 6. View of the covered mosaics at the Villa of the Nereids at Tajourah. Photograph: W.T. Wootton.

Figure 7. Rubbish on the Lower City, Euesperides (Benghazi). Photograph: W.T. Wootton.

Figure 8. CaMMiL workshop programme for Tripolitania and Cyrenaica, designed in 2011 but never carried out.
### Workshop programme:

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**Participants:**
- **Group 1:** Site and museum controllers, academics and archaeologists.
- **Group 2:** Museum & site technicians.