ANNUAL REPORT FOR YEAR EIGHT
(October 1, 2011 – July 14, 2012)

AND

ANNUAL IMPLEMENTATION PLAN FOR YEAR NINE
(July 15, 2012 – July 14, 2013)

The Egyptian Antiquities Conservation Project (EAC)
USAID Agreement No. 263-A-00-04-00018-00

Awarded to

THE AMERICAN RESEARCH CENTER IN EGYPT (ARCE)

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by the

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AMERICAN RESEARCH
CENTER IN EGYPT

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LIST OF ACRONYMS

AKCS-E	Aga Khan Cultural Services - Egypt
AERA	Ancient Egypt Research Associates
APFS	Advanced Publication Field School
ARCE	American Research Center in Egypt
DSR	Data Structure Report
EAC	Egyptian Antiquities Conservation
EES	Egypt Exploration Society
GPMP	Giza Plateau Mapping Project
JARCE	Journal of the American Research Center in Egypt
LED	Light emitting diode
MoLAS	Museum of London Archaeological Site Manual
MSA	Ministry of State for Antiquities
NLAE	National Library and Archives of Egypt
SCA	Supreme Council of Antiquities
SoM	Survey of Memphis
USAID	United States Agency for International Development

APPENDICES

EXECUTIVE SUMMARY

The Egyptian Antiquities Conservation project has completed its eighth year of implementation, with two years remaining in the grant. Twenty-three projects have been completed and eleven are nearing completion during the coming eighteen months with the final year dedicated in large part to final reporting and the publications program.

This report covers the results achieved during the period July 15, 2011 through July 14, 2012 (Year 8 of the EAC Project), as well as planned activities for the following period, July 15, 2012 through July 14, 2013 (Year 9).

The main achievements during Year 8 were as follows:

- Cycle Three: Completion of "Groundwater and Structural Monitoring," "Preservation of the Sacred Lakes," "Khonsu Temple Epigraphy" subprojects at the Karnak Temple complex, as well as "Luxor Temple Ramesses II Columns." Continuation of five sub-projects through the next year, including the EAC Publication Program.
- Cycle Five: Completion of the "ARCE Field School for SCA Inspectors" and continuation of four projects funded under Modification No. 6 to the USAID agreement, two of which are continued from previous funding cycles.
- Supervisory site visits by ARCE Management and Project review visits with officials from USAID
- Participation in ARCE's annual meeting, conferences, and lectures, to present project work done funded by USAID.
- Communication with the changing leadership at the Supreme Council of Antiquities throughout the recent period of political upheaval. ARCE continued to cooperate with the SCA to obtain permissions from the SCA Permanent Committee for ongoing conservation work.
- Additional funding from USAID obligated to ARCE to assist the National Library and Archives of Egypt (Dar El Kotob) in their efforts to stabilize and conserve retrieved books from the burning of the Egypt Scientific Institute.

Egyptian Antiquities Conservation Project (EAC)

Annual Report: Year Eight

(October 1, 2011 – July 14, 2012)
and

Implementation Plan: Year Nine

(July 15, 2012 – July 14, 2013)

INTRODUCTION

This is the annual report for Year Eight and the implementation plan and budget for Year Nine of the Egyptian Antiquities Conservation (EAC) Project, Cooperative Agreement No. 263-A-00-04-00018-00, awarded to the American Research Center in Egypt (ARCE) by the United States Agency for Development (USAID) on July 15, 2004.

The goal of the EAC Project is to safeguard Egypt's cultural heritage and to promote tourism through the development of the Egyptian Supreme Council of Antiquities' (SCA) institutional capacity and the conservation of specific historic sites.

Since its inception in 2004, ARCE has successfully completed seventeen projects, and will continue to work on fourteen remaining projects until the project end date in July 2014.

For ease of reference, this report contains only ongoing project descriptions. Completed project descriptions may be found in Annex B of this document.

CYCLE ONE PROJECTS

October 1, 2004 – December 31, 2010

The following four projects were approved by USAID in the EAC Cooperative Agreement for Cycle One subproject implementation, and scheduled to commence in Year One.

Project Name	Grantee Name	Location	Start / End Date	Status	Total Budget (LE)	Total Spent (LE)
Field School for SCA Inspectors	Ancient Egypt Research Associates, Inc. (AERA)	Giza Plateau	Dec-06 / July 2009	Extended 3 more years - completed *	1,926,088	3,711,478
Marina El-Alamein Site Presentation	Agnieszka Dobrowolska	Mediterranean Coast	Jun-05 / --	Expanded and later suspended	1,883,065	2,499,841
Conservation and Display of Early Cells at St. Anthony's Monastery	Fr. Maximous al-Anthony	Red Sea Coast	May-06 / Dec-10	Completed	607,410	347,945
Test Cleanings of Roman Wall Paintings In Luxor Temple	Luigi De Cesaris & Alberto Sucato, Restorers	Luxor	Nov 15-30th '05	Completed **	118,796	118,606

* continued funding under Cycle 5

** continued funding under Cycle 2

CYCLE TWO PROJECTS

October 1, 2005 – July 15, 2009

Six Cycle Two projects were approved by USAID in EAC's Year Two plan:

Project Name	Grantee Name	Location	Start / End Date	Status	Total Budget (LE)	Spent by Year 8
Roman Wall Paintings Conservation in Luxor Temple	Luigi De Cesaris and Alberto Sucato, Restorers	Luxor	Oct. '06 – Dec. '08	Completed	3,454,000	2,624,745
Conservation and Documentation of Wall Paintings at the Red Monastery	Dr. Elizabeth Bolman	Sohag	Sept.'06 to July '09	Completed *	8,299,570	8,050,231
Conservation of the Mosque of Aslam al-Silahdar (Cairo)	Christophe Bouleau (ARCE in partnership with Aga Khan Cultural Services Egypt)	Cairo	May '06 to March '09	Completed	3,134,566	3,453,705
Conservation and Documentation of the Tomb of Menna	Dr. Melinda Hartwig (Georgia State University)	Luxor	Feb '07 to Dec. '09	Completed	1,668,050	1,931,443
Site Management Implementation	ARCE-Managed	Luxor	Oct. '06 – Dec. '12	Modified	2,174,618	569,203
Egyptian Museum Registrars Training	Dr. Janice Kamrin (ARCE-managed)	Cairo	Oct. '06 – Jan. '11	Extended and completed	2,247,148	4,951,325

- CONTINUED FUNDING UNDER CYCLE 5

SITE MANAGEMENT IMPLEMENTATION

Statement of the Project: Under the EAP Post-Grant Conservation Program, ARCE funded a site management training project for SCA employees. This project focused on the present conditions and the opportunities for enhancement on the west bank at Luxor. Trainees were drawn from the SCA inspectors currently stationed at the regional inspectorates between Esna and Sohag. Part of the training program involved creating a management plan for the Medinet Habu temple complex.

Under the EAC Cycle Two program, the management plan for Medinet Habu produced under EAP was intended to be used to create specifications for a contract to be competitively awarded in Year Three for site improvements at Medinet Habu. By 2008 a project sponsored by the SCA had started to develop its own program at Medinet Habu with Dr. Neguib Amin and Dr. Wolfgang Mayer, of the Hans Seidel Foundation. Therefore, ARCE found no counterparts to implement the project as initially conceived. The scope of work was consequently reduced to creation of visitor information signage, in Arabic and English, which is in the development and review stage.

Year Eight Results: Development of texts for 27 signs continued in collaboration with Chicago House. The English text is nearly complete, and need to be translated into Arabic. At present, the Chief Inspector of the SCA West Bank Inspectorate expresses no interest in placing signs within the Medinet Habu complex, as he believes it will inhibit the use of local tour guides.

Planned Activities for Year Nine: ARCE plans to complete the graphic design and Arabic translation. Ongoing development of appropriate illustrations and plans is in collaboration with Chicago House.

Total Amount Originally Budgeted for Site Management: 2,174,618 (Unspent funds were reallocated to other projects)

Total Site Management Expenditures through Year Eight: LE 569,203

Estimated Budget for Year Nine: LE 0

CYCLE THREE PROJECTS

LUXOR GROUNDWATER LOWERING RESPONSE (MODIFICATION No. 1)

March 1, 2007 – July 14, 2014

Introduction

ARCE-managed projects under the Luxor East Bank Groundwater Lowering Response have five main deliverables:

1. A monitoring system;
2. A conservation program for the temples of Karnak, Mut and Luxor;
3. A training program for SCA conservators;
4. Establishment of a conservation center with laboratory, and
5. Documentation and publication of conservation activities.

Project Implementation Schedule: The period March 1 to September 30, 2007 was devoted to establishing the Luxor office, staff recruitment, project planning and mobilization. The original timeframe for project implementation (between October 1, 2007 and July 14, 2009) was not sufficient to complete the planned activities, once the mobilization period and needs assessments were completed. With USAID approval of ARCE's requested no-cost extension, on-site activity in Luxor was extended until 2013, allowing for demobilization and reporting in 2014.

This annual report covers the fifth season for the ARCE East Bank Groundwater Lowering Response program. The 2011-2012 conservation season and field school started in mid October 2011.

Cycle Three Program Descriptions

The following table shows projects and sub-activities approved by USAID for Cycle Three implementation, commencing in Year Three (2007). Descriptions of ongoing projects and those that were completed in Year 8 are described in the following section. Project headings and names correspond with the table.

	Project Name	**Principal Consultants**	**Location**	**Start / End Date**	**Status**	**Spent by end of Year 8**
A						
1	Emergency Conservation at Luxor Temple: **Roman Bastion**	Dr. Pamela Rose, ARCE	Luxor Temple, East Bank	Oct. 2009 – June 2010	Completed	LE 112,093
2	Emergency Conservation at Luxor Temple: **Pest Netting**	John Shearman, ARCE	Luxor Temple, East Bank	January 2010 - March 2011	Completed	LE 13,400
3	Emergency Conservation at Luxor Temple: **Salvage Archaeology Field School (2 seasons) (1st season in Cycle 4)**	Dr. Mark Lehner, Ancient Egyptian Research Associates	Luxor Temple, East Bank	9th Jan – 15th March '10 9th April – 3rd June, 2011	Completed Completed	LE 1,945,106
4	Emergency Conservation at Luxor Temple: **Ramesses II Columns**	Khadija Adam Tho, ARCE	Luxor Temple, East Bank	December 2010 – August 2012	Completed in Year 8	LE 804,550
B						
1	Emergency Conservation at Karnak Temple: **Khonsu Flooring and Stone Masonry**	Danny Roy, John Shearman, ARCE	Karnak Temple, East Bank	Sept. 2008-June 2009 July 2010 – July 2013	Ongoing	LE 1,922,957 LE 60,015
2	Emergency Conservation at Karnak Temple: **Euergetes Gate**	Christie Pohl ARCE	Karnak Temple, East Bank	October 2009 – December 2010	Completed	LE 415,160
3	Emergency Conservation at Karnak Temple: **Khonsu Epigraphy**	Chicago House Epigraphic Survey	Karnak Temple, East Bank	October 2009 – June 2012	Completed in Year 8	LE 885,458
4	Emergency Conservation at Karnak Temple: **Talatat Project**	Dr. Jocelyn el Gohary. ARCE	Karnak Temple, East Bank	October 2008 – October 2012	Ongoing	LE 4,041,947
C						
1	**Field School for SCA Architectural Conservators**	John Shearman and Saied Hamed, ARCE	Karnak Temple, East Bank	September 2007 – July 2013	Ongoing	LE 4,587,526
2	Emergency Conservation and Training at Karnak Temple: **Khonsu Walls and Columns**	Christie Pohl, ARCE	Karnak Temple, East Bank	April 2008 – June 2013	Ongoing	LE 1,878,736
3	Emergency Conservation and Training at Karnak Temple: **Khonsu Chapels**	Christie Pohl, ARCE	Karnak Temple, East Bank	October 2009 – July 2013	Ongoing	LE 1,280,576
4	Emergency Conservation at Karnak Temple: **Euergetes Gate**	Christie Pohl ARCE	Karnak Temple, East Bank	October 2009 – December 2010	Completed	LE 415,160
D	Luxor Conservation Center (Laboratory)	Christie Pohl, ARCE	Karnak Temple, East Bank	April 2007 – July 2013	Ongoing	LE 3,491,004

	Project Name	Principal Consultants	Location	Start / End Date	Status	Spent by end of Year 8
E	Conservation of the Mut Temple Foundations	Dr. Betsy Bryan, Johns Hopkins University	Mut Temple, Karnak Complex	April 2007 – June 2009	Completed	LE 3,073,240
F	Groundwater and Structural Monitoring	John Shearman and Magdy Mokhtar, ARCE	Karnak Complex, East Bank	April 2007 – August 2012	Completed in Year 8	LE 3,543,062
G	Preservation of the Sacred Lakes	John Shearman and Magdy Mokhtar, ARCE	Karnak and Mut Temples	April 2007 – August 2012	Completed in Year 8	LE 4,545,454
H	Documentation and Publication	Kathleen Scott, ARCE	Cairo – Luxor	April 2007 - Extended to July 2014	Ongoing	LE 4,767,133

In addition to managing sub-agreements for field schools, epigraphy, and conservation at Luxor Temple, Khonsu Temple, and Mut Temple, ARCE directly implements major activities included in the Luxor East Bank Groundwater Lowering Response Project. ARCE has chosen to implement these activities, e.g. monitoring, training, establishing and equipping a conservation center, and a field school for SCA conservators, to more efficiently manage them. Also included in Cycle 5 projects is the ARCE Publication and Archiving Program.

Ten projects and sub-grants were conducted during Year 8, including four which were completed by the end of the year (Ramesses II Columns, Khonsu Epigraphy. Groundwater and Structural Monitoring, and Preservation of the Sacred Lakes). Projects in the above table that were completed before Year 8 are not described below.

A. EMERGENCY CONSERVATION AT LUXOR TEMPLE

Statement of the Project: At the outset of this project, the effects of the groundwater lowering remained unknown. It was anticipated that temple foundations might be destabilized and salt efflorescence could destroy the relief decoration on the temple walls. In order to address the anticipated negative effects as they occur with immediate remedial intervention, ARCE's Luxor East Bank Groundwater Lowering Project budget included an Emergency Intervention component. With these funds, ARCE has hired conservators and procured the necessary equipment and supplies to conduct the conservation intervention. Projects included desalination of decorated and undecorated stone, the replacement of badly deteriorated blocks where possible, moving displaced blocks from direct contact with a wet environment, and correction of any destabilized architectural elements, etc.

Any conservation treatment within the Luxor Temple complex requires the active involvement of Dr. Ray Johnson and his Chicago House (Oriental Institute, University of Chicago) team, who hold the concession with the MSA. With the existing conditions report prepared by ARCE in Year 4 as a background and in close coordination with Dr. Ray Johnson, ARCE identified potential conservation projects within Luxor Temple, including an archaeological investigation of the Roman ruins within the temple. Chicago House requested Permanent Committee clearance for all planned conservation work. Ongoing and completed small projects are listed below:

A.4 RAMESSES II COURT COLUMNS

Year Eight Results: Starting in December, 2009, at the request of the SCA Luxor Inspectorate, ARCE supplied materials and technical support for an SCA project to clean and desalinate 32 limestone columns in the Ramesses II Court at Luxor Temple. They are arranged on two rows on the west side of the court. Salt damage caused by the rising groundwater level, necessitated cleaning, desalination and patching to stabilize the columns and prevent further damage, now that the groundwater level has been lowered. Work involved the removal of old soluble salt filled cement repairs and cleaning and patching the columns by SCA staff, under ARCE supervision. By July 2010, 14 of the columns had been repaired by the SCA staff. However, ARCE had some concerns over the quality of the work completed. In the Year 7 Season (October 2010 – June 2011), ARCE mobilized a team (1 Egyptian supervisor and 6 field school graduates) to focus on the removal of cement patches on 8 of the columns located on the west side of the court. The columns were thoroughly documented and re-patched using lime mortar.

During the period October 2011 – June 2012 (Year 8) SCA conservators who previously participated in the ARCE Conservation Field School, under the supervision of ARCE Conservator Khadija Adam, continued to remove old soluble salt filled concrete repairs in the western side of the Ramesses II Court. As of August 2012 all of the remaining 10 columns were completed thus concluding the patching project in the Ramesses II Court at Luxor Temple.

Total Ramesses II Court Cleaning Expenditures to Date: LE 804,550 (LE 520,821 spent in Year 8)

Year Nine Planned Activities: No further training or conservation activities are planned for Luxor Temple after August 2012. However, the Luxor budget includes costs for activities such as signage and photography.

SIGNAGE

Visitor information will be installed at ARCE project sites throughout the Karnak complex to provide an explanation of the work completed at each site, as well as proper acknowledgement of the collaborating agencies. In Year 7 ARCE produced draft signage texts for the different sites where EAC interventions have taken place. ARCE discussed the selection of locations with the SCA Inspectorate.

Year Eight Results: Although the approval of the signage texts is pending, ARCE was able to get the basic location agreements with the SCA. ARCE has been unable to locate firms, after a thorough search, whose products on the local market meet international standards for durability and quality for production of outdoor signage. This led to the selection of the firm Atelier Uznaberg in Switzerland. In Year 8, ARCE has continued to seek durable signage in the local market to determine if a local firm can be located to meet standards for sign production.

Year Nine Planned Activities: In Year 9, ARCE will obtain approval of the signage texts and continue to seek local sign production companies. Testing is ongoing for local (Cairo) signage using an "acid etching" method. If this proves successful, local purchase of signage could be realized. If the current test proves unsuccessful, the signage will be purchased from the Swiss company.
ARCE plans to install an informational sign in front of Khonsu Temple with two small signs pointing the way to Khonsu from the main temple. Another sign will be installed at the lab.

No signage is planned for Luxor Temple, as the column conservation work conducted there for the field school was of a temporary nature.

Season: September 19, 2012 to July 14, 2013
Cairo Coordinator: Kathleen Scott
Luxor Coordinator: John Shearman
Objectives:

1) Determine if a local Egyptian firm can meet the standards for sign production (receipt of samples).
2) Review and receive approval of the drafts from the following:
   - ARCE staff
   - USAID
   - SCA
   - Richard Fazzini and Betsy Bryan (Mut Temple)
3) Purchase signage
4) Install signage at SCA approved locations.

Signage Budget (Year 9): LE 84,192 (included in Luxor Emergency budget)

Total Luxor Emergency Conservation Expenditures through Year Eight: LE 5,173,956

Emergency Conservation at Luxor Temple Budget (Year 9): LE 274,442

Total Budgeted for Luxor Emergency Conservation: LE 5,448,398

B. EMERGENCY CONSERVATION AT KARNAK TEMPLE

Statement of the Project: One of the effects of the groundwater lowering at Karnak Temple is salt efflorescence. Khonsu Temple, located at the southwest quadrant of the Karnak Temple complex, has been the focus of ARCE's conservation work. This choice was based upon assessment of conservation needs with the SCA Inspectorate, and the SCA's specific scope of work as defined in their permission for work to commence. Long ago, the Karnak enclosure entrance was changed so that this temple was rarely visited. At the request of the SCA, ARCE has undertaken to provide better access for visitors and to repair, conserve and enhance the presentation of this important site.

Year Eight Results: Several activities were conducted in Year Eight in the Karnak Temple complex. They include: Epigraphic Work at Khonsu Temple, Khonsu Temple Floor Patching, and the Talatat Project.

B.1 KHONSU FLOORING

The goal of the flooring work in Year 8 was to install new stone floor slabs that were needed in Chapels 1 and 2. The flooring work was completed in Chapel 1, however; due to exposed blocks with inscriptions that required epigraphic documentation, a section of flooring in Chapel 2 was not completed.

Three ARCE trained Egyptian masons began the flooring work in Chapel 2. During this operation, several reused blocks were revealed and recorded by Chicago House epigraphers. One of the reused blocks incorporated in the east wall was in poor condition and had to be stabilized by conservators. This halted the operation and a section of the flooring could not be completed in the season.

Total Khonsu Flooring Expenditures to Date: LE 1,982,972 (LE 60,015 spent in Year 8) (included in Karnak Emergency budget)

B.3 KHONSU EPIGRAPHY (CHICAGO HOUSE

During the 2011-12 season (Year 8), Chicago House continued with epigraphic documentation of stones exposed while ARCE performed flooring work in Chapels 1 and 2 and other exposed reused blocks in Chapel 7.

There were minor instances of existing reused flooring blocks in Chapels 1 and 2, however all reused blocks with inscriptions were duly recorded by Chicago House.

Total Epigraphic Project Expenditures to Date: LE 885,458 (included in Karnak Emergency budget)

B.4 TALATAT PROJECT

"*Talatat*" is the Arabic name for the distinctive sandstone blocks used to construct new temples at Karnak during the reign of Akhenaten. These temples were demolished after Akhenaten's death and thousands of these *talatat* were reused as building material in new temples. During the 19th and 20th centuries the *talatat* were retrieved from the ruins and those with decoration and inscriptions stored in magazines in the Karnak Temple precinct. By the beginning of the 21st century the *talatat* faced serious conservation issues exacerbated by the poor storage conditions.

A project was established, under the direction of Dr. Jocelyn el Gohary to oversee the transfer of each block from the magazine to the work area for cleaning, stabilization, photographic documentation, and recording of data. After treatment, each block was returned to newly built *mastabas* (mudbrick or stone benches) in the storage facility. With the conservation and documentation of over 16,000 *talatat* blocks completed in the 2009-2010 season, review and completion of the data base was approximately 75% complete by the end July 2011. The process involves entering detailed data and checking and archiving each data page that was entered for each block. In April 2012, a six-month contract was signed with Dr. el Gohary to complete the database by October 31, 2012.

Total Talatat Expenditures to Date: LE 4,041,947 (LE 68,267 spent in Year 8) (included in Karnak Emergency budget)

Year Nine Planned Activities:

Epigraphic work: No further epigraphic work is expected.

Khonsu Flooring: In Year 9, flooring work will be completed in Chapel 2. All work will be performed by ARCE trained Egyptian masons.

Karnak Talatat Project: In Year 9, ARCE will determine the best way to make this information public to the archaeological community. For example, an online database that clearly displays USAID and ARCE's logos could be located on a museum or university server.

Total Karnak Emergency Conservation Expenditures through Year Eight: LE 15,885,543

Emergency Conservation at Karnak Temple Budget (Year 9): LE 1,337,641

Total Budgeted for Karnak Emergency Conservation: LE 18,842,374

The following illustrations show Khonsu and Luxor Temple conservation activities.

Figure 1: Luxor Temple Ramesses II Court Column Cleaning and Patching
The process of cleaning and consolidation of a column capital.

Figure 2: Luxor Temple Ramesses II Court Column Cleaning and Patching:
Graffiti found during conservation work include a 'Star of David' (left), a saint (middle) and Arabic inscription (right)

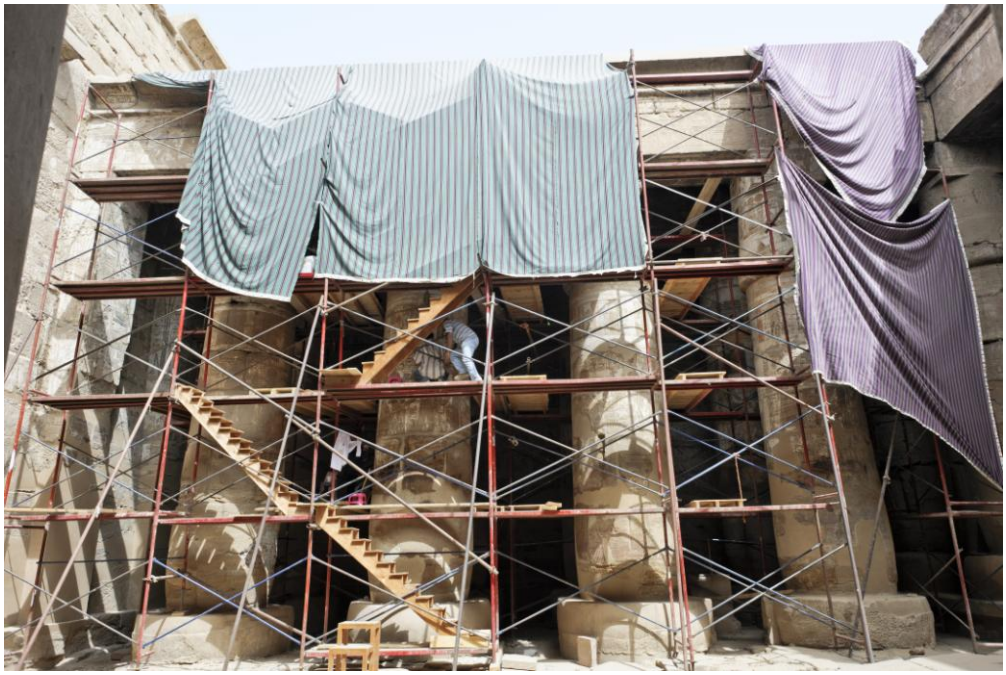

Figure 3: Khonsu Temple Column Conservation – Main Court West columns work in progress

Figure 4: Khonsu Temple Chapel 7 – Before conservation work

Figure 5: Khonsu Temple Chapel 7 – After conservation work

C. FIELD SCHOOL FOR SCA ARCHITECTURAL CONSERVATORS

Statement of the Project: Karnak and Luxor temple complexes are massive monuments with acres of decorated and undecorated masonry. In order to be able to manage the long-term responsibility of preserving these monuments, the SCA requires capacity building through training. ARCE's Field School for Architectural Conservators will result in the creation of a cadre of Egyptian conservators who have participated in the project from its inception and who will be taking the lead in conservation activities at the conclusion of the project. The purpose is to enable the conservation to continue after the lifetime of the project, thus ensuring a lasting legacy of the Luxor East Bank Groundwater Lowering Response Project. Topics of study would include inspection/analysis, assessment of intervention, treatments, documentation and publication.

Implementation Schedule: The EAC Luxor Conservation field school started in September 2007. Sessions were conducted each year between October and April so that trainees would have participated in the entire conservation process upon completion of their training. Furthermore, by participating in various conservation projects led by professional conservators at all three temples during the Luxor East Bank Groundwater Lowering Response Project, trainees will experience a variety of different approaches in the face of real situations.

Between September 2007 and April 2010 the Conservation Field School conducted three seasons of training for 76 SCA conservators (43 women and 33 men) in three locations: Khonsu Temple, where painted reliefs were cleaned, the Eurgetes Gate in Karnak Temple, where a masonry support was installed and the structure was cleaned and treated for smoke damage, and new mortar patching was applied on gaps in the wall. Training was also conducted in the Hypostyle Hall of Karnak Temple, where the western wall was desalinated and cleaned to remove dirt and dust.

During the 2010-2011 season (Year 7), advanced field school training involved application of conservation methods in the field, with very little classroom instruction. The fifty-four SCA conservators who had previously graduated from ARCE Conservation Field Schools participated in the program. Work concentrated on capacity building in advanced conservation techniques along with special attention to leadership capabilities (for future conservation supervisory training). 50% of the students were women and 50% were men. The focus area of work included Khonsu Temple West Wall, Khonsu Chapel 7 and Luxor Temple Ramesses II Court Columns. (See Appendix 2 – "Training Completed – EAC Project")

Year Eight Results: The goal of ARCE's Field School for SCA Conservators in Year 8 was to incorporate advanced students into onsite conservation work in the Khonsu Temple at Karnak and the Ramesses II Court at Luxor Temple. Khonsu Temple Chapel 7conservation efforts included an advanced conservation field school application coupled with conservation of approximately 50% of the chapel walls. During the 2011-12 season (Year 8), 28 SCA Conservators (15 men and 13 women) who were students from the past three field school seasons worked with ARCE supervisor/trainers on the following activities.

C. 2 KHONSU WALLS AND COLUMNS

Work continued with students in the advanced conservation training program on removal of the cement patches and replacement with lime mortar. The west wall was completed in the Main Court by mid-season, and work then concentrated on the eight west columns of the Main Court and a degraded section of wall in the southwest corner of the Main Court. The advanced field school was successful and the west wall and southwest corner conservation efforts were completed. No further work is required. The eight columns were largely completed with minor work required at the base of the columns.

Total Khonsu Walls and Columns Expenditures to Date: LE 1,878,736 (LE 1,111,083 spent in Year 8)

C.3 KHONSU CHAPELS

With students from the advanced conservation training program, consolidation, old cement removal and patching with lime mortar and cleaning was performed on the upper section of Chapel 7 walls. The upper section was completed in Year 8. The advanced conservation field school was successfully completed and ARCE surpassed the goal of 50% completion of Chapel 7.
Total Chapels Expenditures to Date: LE 1,280,576 (LE 643,992 spent in Year 8)

Year Nine Planned Activities: No further training work is planned for the Ramesses II Court in Luxor Temple. Work will continue on Khonsu Walls and Columns and in Chapel 7 of Khonsu Temple under the direction of ARCE conservators and managers.

- Khonsu Walls and Columns: Four advanced students will be working with students of their own to prepare them for directing work and forming teams. Planned training activities for the Khonsu Temple Wall and Column conservation will be to conduct a four-month program of supervisory training for four advanced students to supervise four new trainees. This will include both classroom and field instruction. The planned conservation activities include completing the minor work at the base of the eight west columns and to complete the underside of the architraves above them. Planned activities also include consolidation work on the cornice above the architraves which need stabilization. No cleaning of the cornice is planned. Time permitting, the west face of the architrave will be cleaned and conserved.
- Chapel 7: Two advanced students will participate in supervisory training of two new trainees. This will include both classroom and field instruction. The planned conservation activities include finishing the remainder of conservation work in Chapel 7 and installing Solatube lighting and air venting to make the site visitor-friendly.

Season: January 30, 2012 to June 30, 2013
Project Director: Claire D'Izarny

Objectives:

1) Apply conservation techniques upon four of the eight west column bases in Khonsu Temple (the columns closest to the open court) and the underside of the architrave and the cornice above. Continue work in Chapel 7. The work includes the following:

- Documentation before, during and after treatment (photography, condition reporting and mapping)
- Stabilization work (injections for detaching plaster, mortar edging and grouting, filling of small cracks and larger gaps, additional consolidation). The ceiling and frieze at the top of the wall may require more extensive work.
- Selected cleaning.
- Classroom Instruction (selected lessons of supervisory and management techniques for the supervisory training, field encountered applications and advanced conservation techniques).

Total Field School Expenditures through Year Eight: LE 6,399,423 (LE 1,762,524 spent in Year 8)

Field School Budget (Year 9): LE 289,672

Total Budgeted for Field School: LE 8,451,669

D. LUXOR CONSERVATION CENTER (LABORATORY)

Statement of the Project: The Luxor Conservation Center was created to provide classrooms for training, a computer lab for data analysis, a conservation laboratory for antiquities that require in-house treatment, and storage facilities for monitoring equipment. The Center was intended to be an integral part of the Luxor East Bank Groundwater Lowering Response Project and to continue beyond project completion as a sustainable resource for the SCA to preserve the monuments of Luxor.

ARCE completed construction and equipping the lab in late 2008. The laboratory is a fully equipped modern facility with basic laboratory instruments from analitical balance to conductivity meter and microscopes. It also contains a fume hood to manipulate dangerous chemicals, an oven and a simple but affective system to produce distilled water, later used during conservation work such as cleaning decorated stone surfaces. It is primarily used as a teaching space for the conservation field school where the trainees learn how to carry out basic conservation tests. Other uses include preparing material needed for conservation. The slaking of lime is important for the quality of the lime mortar. The operation is performed just outside the laboratory at the east end. The laboratory is also conceived to provide space, materials and equipment for other teams working in the greater Luxor area to carry out analysis or conservation work. Finally, it is planned to provide basic analitical capabilities in support of archaeological projects in Karnak.

In July 2009, ARCE recruited an expatriate lab manager to establish procedures, procure supplies for the conservation laboratory. The conservation center will also serve as a training venue for the field school, and for activities related to Karnak and Luxor conservation and archaeological work.

The 2010 - 2011 season involved the initial training of the Egyptian Laboratory Manager, Abdel Hakim Ahmed El-Badry. Mr. El-Badry, an SCA employee, has a Masters degree in Conservation from Cairo University and was selected by the SCA for this position. Immediate training focused on creation of a data base and training in Inventory Control and testing lime mortar components for material Quality Control. The Quality Control aspect also included monitoring and oversight of the lime slaking process located behind the laboratory.

Year Eight Results: The Lab Manager Mr. Abdel Hakim El-Badry continued his training with inventory, quality control and utilization of the laboratory equipment such as analizing samples collected from the conservation efforts in Khonsu Temple. Lab analysis methods include use of a microscope mounted with a camera to take photographs which can be downloaded in the laboratory computer. The photograph can be used to inform the conservator about the structure of a sample, thus revealing the best treatment method. Abdel Hakim has reached out to other missions, especially the Franco-Egyptian Center at Karnak who have a permanent concession in Karnak Temple. Following the success of ARCE's lime slaking operation, they have started one of their own and depend on ARCE's lab to test the slaking process for quality.

Due to medical reasons, Abdel Hakim was not able to be trained in a Cairo laboratory so the training goal of Year 8 was not met. ARCE has worked with the inspectorate to ensure sustainability of the laboratory by working on protocol procedures and fees for the laboratory work.

Year Nine Planned Activities:

The Season: October 17, 2012 to June 30, 2013

Laboratory Manager/Trainer: Abdel Hakim Ahmed El-Badry/Magdy Mokhtar

Objectives:

1) To be used for classroom instruction (selected lessons of field encountered applications) described above and as a conservation center of the Karnak site where basic conservation tools and materials can be found.
2) Continue to provide proper instruction to the conservation field school trainees in the safe use and the proper cleaning and maintenance of the equipment, materials and chemicals used in and about the laboratory.
3) To insure the sustainability of this facility by combining field encountered issues with low-tech analitical laboratory methods.
4) To put in place documented procedures for the proper running of the conservation laboratory (basic health and safety manual, standardized analysis sample forms, etc.).
5) Train SCA personnel for laboratory takeover at the end of the EAC Project in 2014. Abdel Hakim Ahmed El-Badry to be trained in a Cairo laboratory.
6) Maintain and document quality control of lime and mortar through laboratory testing.
7) Serve Karnak and other missions in testing and conservation analysis.

Total Luxor Conservation Lab Expenditures through Year Eight: LE 3,491,004 (LE 83,294 spent in Year 8)

Luxor Conservation Center (Lab) Budget (Year 9): LE 143,552

Total Budgeted for Groundwater Monitoring: LE 3,681,049

F. GROUNDWATER AND STRUCTURAL MONITORING

Statement of the Project:

The monitoring program includes a series of ongoing measurements intended to identify different types of movement of the temple structures. The measurements include:

- Measurement of the elevation and distance between a group of temple structures to identify whether they are sinking, rising or shifting in any direction
- Measurement of crack width and/or the tilting of temple columns.

The three (3) types of methods used to measure the above is as follows:

- Precise Level Measurement – is a measurement of the precise vertical elevation (relative to sea level) of a point fixed on an ancient structure.
- Total Station Measurement – combines horizontal and vertical measurements between groups of temple structures. In this method, several survey measurements are made between locations visible from a reference survey point. The resulting geometry calculation tells the monitoring program whether any of the temple structures in the group has moved relative to the other objects.
- Crack and Tilt Measurements – At selected places on temple structures, sensors are installed to measure the tilt of a position from the vertical (within a certain plane), or the width of a structural crack.

Structural monitoring is performed by the Egyptian firm of SMT Consultants under contract to the Egyptian Supreme Council of Antiquities. ARCE has been working in collaboration with SMT Consultants since March 1, 2007 to conduct an observation program on supplemental monitoring points in the Luxor Temple. At selected locations, tilt meters and crack meters were installed. The locations for these sensors were selected in consultation between archaeologists and the SCA. Water level measurements were taken by ARCE staff in both Luxor and Karnak Temples every three days, in conjunction with SMT Associates.

ARCE has continued with the routine monitoring program and has generated semi-annual reports. As of February 2011, no significant movement or destabilization of the temple structures following startup of the dewatering systems at Karnak and Luxor Temples had been recorded or witnessed.

Year Eight Results: ARCE completed its fifth season of monitoring of the groundwater level and structural components of both Karnak and Luxor Temples. Data has shown no significant movement as a result of the actions of the dewatering system. Measurements were taken three days a week and the data is compiled every six months. The data shows that the groundwater system is working fine in keeping the groundwater at the stipulated level.

Although ARCE no longer performs the structural monitoring via surveying, the project team has been able to obtain survey and sensor measurement data from SMT Consultants and place it in semi-annual progress reports in the past. Due to recent payment issues between the surveyor and the SCA, ARCE was unable to obtain this data for the final two reports (Report 9 and Report 10). The monitoring procedure was handed over to the SCA in August 2012.

Year Nine Planned Activities: Having thus completed five years of data collection with no significant movements in the monumental structure, no further monitoring will be performed by ARCE.

Total Groundwater Monitoring Expenditures through Year Eight: LE 3,543,062 (LE 166,439 spent in Year 8)

Groundwater and Structural Monitoring Budget (Year 9): 0

Total Budgeted for Groundwater Monitoring: LE 3,543,062

G. PRESERVATION OF THE SACRED LAKES

Statement of the Project: This project commenced in April 2007 to address the problems of the groundwater lowering for the sacred Lake of Amun at Karnak Temple and the somewhat smaller sacred Lake of Isheru at Mut Temple. The Lake of Amun at Karnak Temple is a focal point for tourists so water levels must be maintained. Before the Groundwater Lowering Project became a reality, this lake was normally refilled with Nile water, causing a large weed buildup throughout the lake. ARCE shut off the Nile water and replaced it with cleaner groundwater. After removing the weeds, chemically treating the water to prevent re-growth, and implementing a maintenance routine, the SCA resumed maintenance in April 2010.

The Sacred Lake at Mut Temple was known in ancient Egyptian as '*isheru'*, and was specifically associated with leonine goddesses. Its crescent shape forms a key element of the New Kingdom temple complex of the goddess Mut, which lies a short distance south of Karnak and is connected to it by a sphinx-lined processional way. It is of New Kingdom origin, and may have formed part of the original temple complex, which seems to have been built in the earlier part of the 18th dynasty under Hatshepsut and Tuthmosis III (roughly the mid-fifteenth century BC). The lake edges were refitted with stone walls, which were repaired and modified over a long period, at least until the time of the Ptolemies circa 200 BC. It is a natural refuge for wildlife, now threatened with extinction due to contamination by chemical concentration following the groundwater lowering project.

The Mut Temple Sacred Lake had many problems with weed infestation surrounding the lake and in the lake itself. Monitoring of the weed/plant accumulation at Mut Temple Lake was conducted throughout summer 2010. During the 2010-2011 season, weeds around the lake were removed and a heavy duty plastic liner was placed around the lake embankment. This proved a successful deterrent to weed growth around the lake.

The lake's water source is the groundwater. With no circulation, the lake became stagnant and produced a bad odor. ARCE installed a sump pump regulated by a float. The pump switches on when the lake is at its highest and lowers the level approximately half a meter. The pump then shuts off and allows fresh groundwater to fill the lake thus keeping the lake refreshed.

A prototype walkway was also developed to determine the best walkway to surround the lake. The walkway was constructed with a mixture of sand, dry cement and stone and with the approval of the SCA, the walkway can be installed next season.

Year Eight Results: In 2011, the SCA approved the prototype for the above-mentioned walkway to be installed around the Mut Temple Sacred Lake. ARCE worked during the Year 8 Season on the walkway. Work was completed at the end of February. The previously stolen electrical cable for the pump was replaced but a set of cables on the power pole of the main feed needed to be replaced by the SCA. This was done and the pump continued the lake refreshing operation.

Year Nine Planned Activities: With the walkway and sump pump work completed, no further work is anticipated for Mut Temple Sacred Lake after August 2012.

Total Sacred Lakes Expenditures through Year Eight: LE 4,545,454 (LE 215,902 spent in Year 8)

Sacred Lakes Budget (Year 9): LE 0

Total Sacred Lakes Budget (Cycle 3): LE 4,545,454

H. DOCUMENTATION AND PUBLICATION

Statement of the Project: *In its request for an extension to the EAC Grant, submitted by ARCE to USAID in July 2008, three separate budget line items related to publication and archiving, and approved under the original grant, Modification 1, and Modification 4, were combined into one line item under Cycle 3, to simplify the grant budget. The budget included salaries for the Publications Director (75%), Photographer/Designer (100%), Archivist (25%), and Librarian (25%), as well as subventions for book publication.*

Publishing the results of conservation and training programs remains an important goal. The vast amount of technical data and descriptive reports generated by both the Luxor East Bank Groundwater Lowering Response Project and the ARCE conservation projects funded in Cycles One, Two and Four will be invaluable to future generations both as an archive and as a series of published monographs detailing the project as a case study in conservation on a large-scale at one of the world's most significant ancient sites.

Additionally, the archaeological material discovered during the course of USAID's investment in the "Salvation of Karnak and Luxor Temples" groundwater-lowering project needs to be published for the benefit of scholars working in several different fields.

ARCE's publication and documentation program will result in the production of an archived database containing the information collected and stored over the course of EAC project. It will also provide published materials including web-based archives, conservation training manuals in English and Arabic, and final published reports and case studies.

Year Eight Results: No books on EAC subprojects have been published to date, however, significant progress on three manuscripts has been made. ARCE's publication program has continued to complete publication of books on EAP projects that were begun under the ARCE Conservation Series, while commencing with projects started under the EAC. Additionally,

ARCE publishes an annual *Conservation Update* about EAC projects for distribution to stakeholders and visitors.

Work continued on the preparation of a manuscript entitled *The Art of Maintaining an Empire: Roman Wall Paintings in the Luxor Temple* and a revised timeline has been worked out with Yale University Press. Contributing authors are writing chapters and the editors (Michael Jones of ARCE and Dr. Susanna MacFadden) are working to pull the manuscript together by the end of 2012. A publishing contract is being finalized with Yale University Press. Yale hopes to complete the publication in 2013.

The Tomb Chapel of Menna edited by Melinda Hartwig has been put into manuscript form. AUC Press has the final manuscript and has signed a contract with ARCE to publish this as the fifth in its ARCE Conservation Series.

The publications director has been working with ARCE during 2011 and 2012 on editing and publication of *The Red Monastery Church: Magnificence and Asceticism in Upper Egypt* edited by Dr. Bolman. There are numerous contributing authors who will be working on individual chapters and appendices. The editing stage has begun with a target date of late 2013 for the completion of a final manuscript. This is expected to be a very large and complex publication and final publication is unlikely until 2014. Yale University Press has agreed to publish but a contract is still being worked out.

Year Nine Planned Activities: The following publications are scheduled as shown in the table below:

PUBLICATION	CO-PUBLISHER	ESTIMATED DATE for publication
Roman Wall Paintings	Yale University Press	July 2013
Tomb of Menna	AUC Press	December 2013
Red Monastery	Yale or Harvard Press	July 2014

Work will continue on documentation of conservation activities in Luxor and some of these may be published in the form of articles and monographs in ARCE publications such as *JARCE* or the *Bulletin of the American Research Center in Egypt*. The manuscript for *A Study of Artifacts Recovered during the Groundwater Lowering for Karnak and Luxor Temples Project* is being edited, but, to preserve the EAC publications budget for larger projects, this publication will be funded through other ARCE sources.

The Aga Khan Cultural Trust has not indicated any interest in pursuing the publication with ARCE of the Aslam Silahdar Mosque conservation project and so the Director of ARCE has put this publication project on hold.

It is anticipated that the results of the project, "Documentation of Historic Buildings in Luxor" will be published, however, ARCE has not decided on the form of publication.

ARCE will continue to publish its *Conservation Update* each year. The 2012 issue is included in Appendix 1.

Total Expenditure through Year Eight: LE 4,767,133 (LE 850,761 spent in Year 8)

Estimated Budget for Year Nine: LE 1,515,291

Total Publications Budget (Cycle 3): LE 7,501,666

CYCLE FOUR PROJECTS

LUXOR SALVAGE ARCHAEOLOGY

(MODIFICATION NOS. 3 & 4)

March 1, 2007 – July 14, 2009

Introduction

There are currently three expected outcomes under Cycle Four, as approved by USAID in Modification No. 3 and 4 to the EAC Agreement :

1. Salvage Archaeology Field School – Avenue of the Sphinxes;
2. Documentation of Existing Architecture, and Conservation of Decorated Ancient and Medieval Blocks;
3. Publication.

A fourth outcome, "Archaeological Monitoring on the West Bank of Luxor" was included in this modification, in response to the proposed groundwater lowering project surrounding Medinet Habu and other temples on the West Bank. ARCE attempted to enter into discussions with CDM in 2008, during the design stage of the project, and presented an outline for the work of the monitoring project to USAID and the SCA. The CDM project went ahead without ARCE's involvement. After negotiations with USAID and the SCA in March 2008, it was made clear by Dr. Zahi Hawass that this would be an "Egyptian project," and that ARCE would not participate.

The Salvage Archaeology Field School and Documentation of Historic Buildings in Luxor were implemented between July 2007 and August 2008.

Activities approved under Modification No. 4 for publication were consolidated with USAID's various agreement modifications and are presented in a single Publications description in the Cycle Three section of this report.

Cycle Four Sub-projects:

The following projects were approved for Cycle Four subproject implementation, commencing in Year Three (October 2006 – September 2007).

Project Name	Principal Consultants	Location	Start / End Date	Status	Amount spent by end of Year 8
Salvage Archaeology Field School,	Ancient Egypt Research Associates (AERA) Directed by Dr. Mark Lehner	Avenue of the Sphinxes, Luxor	Jan-08 / March-08	Completed	LE 2,477,526
Documentation of historic buildings in Luxor	Hampikian-Ibrashi, Architecture & Heritage Management	Luxor	July-07 /Aug-08	Completed	LE 175,573

CYCLE FIVE PROJECTS
FURTHERING CONSERVATION AND TRAINING INITIATIVES
(MODIFICATION No. 6)

July 15, 2009 – July 14, 2014

Introduction

There are currently five sub-projects approved under Modification No. 6 to the EAC Agreement. The project descriptions below describe accomplishments to date and planned activities under the EAC Program Plan for Cycle Five funding.

Project Name	Principal Consultants	Location	Start / End Date	Status	Total Budget (LE)	Spent by End of Year 8
Conservation of the Red Monastery Church, Sohag (continuing from Cycle 2)	Dr. Elizabeth Bolman, Luigi De Cesaris & Alberto Sucato, Restorers	Sohag	October 2009 – Extended to July 2012	Ongoing *	13,533,222	8,390,391
ARCE Field School (continuing from Cycle 1)	Ancient Egypt Research Associates, Inc. (AERA)	Giza Plateau	Extended to December 2011	Completed *	2,390,094	2,390,094
Conservation of the Shunet al-Zebib, Abydos	Dr. Matthew Adams (New York University/Institute of Fine Arts)	Abydos (Sohag)	January 2010-March 2014	Ongoing	4,155,140	1,771,574
Creation of a Museum at St. Antony's Monastery	Fr. Maximous El-Antony	Red Sea, Egypt	January 2011-July 2012	Ongoing	2,830,460	647,083
Site Management in Historic Cairo	ARCE- managed	Cairo	July 2009 - July 2012	Ongoing	1,485,399	812,814

* Continued from previous cycles with additional funding

DOCUMENTATION AND CONSERVATION OF WALL PAINTINGS AT THE RED MONASTERY, SOHAG (Additional Funding Under Cycle Five)

Implementation: Five additional campaigns of conservation within the church were conducted under Cycle 5, and two were re-scheduled (due to political events in 2011) during the period Fall 2009 (EAC Year 6) to Fall 2012 (EAC Year 9), after which final documentation will be conducted. Years 9 and 10 will be dedicated to the editing, design and production of the book for publication by Yale University Press.

The sixth and seventh campaigns at Red Monastery, under EAC Cycle 5, took place in Year 6, during Fall 2009 and Spring 2010. In Fall 2009, conservation work continued on the right side of the façade, the Diaconicon vault (southeast corner room) and the northwest corridor wall. The decorated archway of the passage between the Prothesis and the north corridor was cleaned. In

Spring 2010, conservation was carried out in different tiers of the East Lobe of the Tri-conch and in the Diaconicon vault.

Conservation work completed in the Fall 2010 campaign included the cleaning of paintings in the east semi-dome of the Tri-conch, the final section of the Façade wall (upper northern end), and most of the remaining areas of level I of the east lobe (all but the niches). The work in the semi-dome revealed primarily figural subjects executed on three distinct paint layers (second, third and fourth in the chronological sequence). On the enclosed section of the Nave wall (near the north end of the Façade wall) there is one more large ornamental cross from the medieval phase that was and work in the lower section of level I of the east lobe revealed a sequence of third phase trompe l'oeil curtains extending along the full length of the wall beneath the niches, a portion of which has already been revealed. The work in the semi-dome (the uppermost section of the Eastern lobe) revealed a complex stratification of paint layers representing four phases of painting and re-painting. This is made visually confusing because later layers have fallen away revealing large sections of the preliminary drawing for the very first paintings applied to the semi-dome in the 6th century. Political events in early 2011 led to the cancellation of the conservation season planned for Spring 2011. In lieu of this, a short 'study season' was conducted for two weeks which allowed three of the conservators and specialist contributors to the planned publication to work on their chapters while studying the architecture and wall paintings.

Year Eight Results: The Fall 2011 conservation campaign was conducted from November 21st to December 20th, 2011, for a total of 29 days on site with nine conservators. Conservation work was carried out on the paintings in the clerestory, on the image of the equestrian saint on the north wall, on the lower niches of the eastern apse and on the vault of the northern side chamber. The season was marred by the untimely death of Luigi de Cesaris, director of the conservation team, on the December 19th. Mr. De Cesaris' leadership of the conservation team and his vision will be sorely missed. His close associate and co-director, Alberto Sucato, has shown unstinting dedication by assuming responsibility for completion of the project.

An additional campaign was conducted from March 20th to April 25th, 2012, for a total of 37 days on site for eight conservators to make up for time lost due to cancellation of the Spring 2011 conservation campaign. Conservation on the eastern lobe and semi-dome was completed and scaffolding can now be removed in preparation for photo-documentation to commence in the Fall of 2012. Conservation continued from the previous season on the ceiling of the Prothesis, and the equestrian saint, in addition to completing conservation of the monumental columns. Conservators had planned to complete the following surfaces: the clerestory west wall (window height level as well as arch level); icons in two niches on the ground floor of the Eastern lobe; and the monochrome cross of the North wall façade. However they were unable to complete all these sections. The critical question of how to complete the eastern semi-dome in a manner that allows the multiple layers of the paintings to be displayed coherently was discussed and plans for the following campaign were made.

In Spring 2012, Dr. Nicholas Warner, Heritage Architect, collaborated with the conservation team and the church leadership to finalize plans for installation of lighting and electrical cabling distribution for the sanctuary of the church and to procure lighting fixtures and materials for electrical distribution according to agreed plans. He also replaced several architectural stone elements missing from the clerestory, and replaced damaged windows in the church for the protection of the conserved paintings.

Year Nine Planned Activities: During Fall 2012, some structural repairs will be done on the dome and the custom-designed chandelier will be installed to illuminate the paintings in the semi-dome in a manner that does not harm them, using Philips LED lighting fixtures. The chandelier is of traditional circular style, made of stainless steel and laser-cut brass. Remaining lighting and

electrical work will be completed between Fall 2012 and Spring 2013, including the installation of power cables, an electrical distribution board, and lighting fixtures throughout the church.
It is assumed that the church will be returned to liturgical use after completion of the project, with a new centrally located altar. This will involve the construction of a new central *haykal* screen placed between the two granite columns, and new double-leaf doors in the passages to either side, and cupboards which will be produced and installed in January-February 2013. Liturgical fittings will not be the responsibility of the EAC project, but could be supervised by the ARCE team to provide conservation advice.

During the final campaign under this grant a structural engineer will be contracted by ARCE to make an inspection of the Red Monastery with a view to advising on the feasibility of reconstruction of a roof over the nave of the church, and of removing the existing concrete floors in the sanctuary and the ground beams against the outside walls. This study is necessary because the Coptic Church intends to move forward with plans for rebuilding the ruined church. While ARCE cannot support this activity financially, it regards the preparation of the engineering report for presentation to the Coptic Church representatives as a major part of the conservation agenda which has been the reason for the entire project since 2002. Structurally an important question must be how a new roof might interact with the existing walls – should it be intended to provide some support to the walls or should it be effectively physically independent? Different options for the roofing will be discussed and a brief will be written for the architect hired by the Church.

In order to complete the documentation of the Red Monastery Church to the highest standard, ARCE will contract with CPT Studio S.r.l., an Italian firm working in the field of cultural heritage documentation. CPT will conduct a comprehensive survey of the Red Monastery Church using 3D laser scanning and high resolution digital imaging to produce a complete model of the architectural surfaces with their painted surfaces. This method of documentation has the advantage of being digitally based so that the results can be manipulated on the computer to achieve 3D as well as a more conventional 2D representation of the building. The architectural mapping presents the church as a whole structure combining all elements of its architectural form and its painted interior. The work is anticipated to take place on site in spring or autumn of 2013. The selected firm has worked with Sergio Taglioccozi and his team, who have been involved in ARCE's monastic projects for fifteen years. They are therefore well known to the conservation team with whom ARCE has worked for many years. This collaboration has the advantage of adding a new component to the wall painting conservation project that will advance the standard of recording and documentation to a level now required internationally for historic buildings of this caliber.

Two limited campaigns are planned for the Italian conservators: one month in November-December 2012 to complete conservation of several small areas of painting in the tri-conch still requiring treatment, and to complete re-integration of the difficult palimpsest images in the eastern semi-dome. Conservators will remove dust and re-integrate conserved parts of the paintings into the overall context of the church. Once all of the above-mentioned work is complete, up to five conservators will return for a short campaign in Fall 2013 to plaster the areas around woodwork fittings and electrical cable installations.

Two short photographic documentation campaigns will be conducted, one in Fall 2012, followed by a final photographic documentation campaign of the church prior to handover in Fall 2013.

Total Expenditure through Year Eight: LE 8,390,391 (2,733,749 spent in Year 8)

Estimated Expenditures in Year Nine: LE 3,198,322

Total Red Monastery Budget (Cycle 5): LE 13,533,222

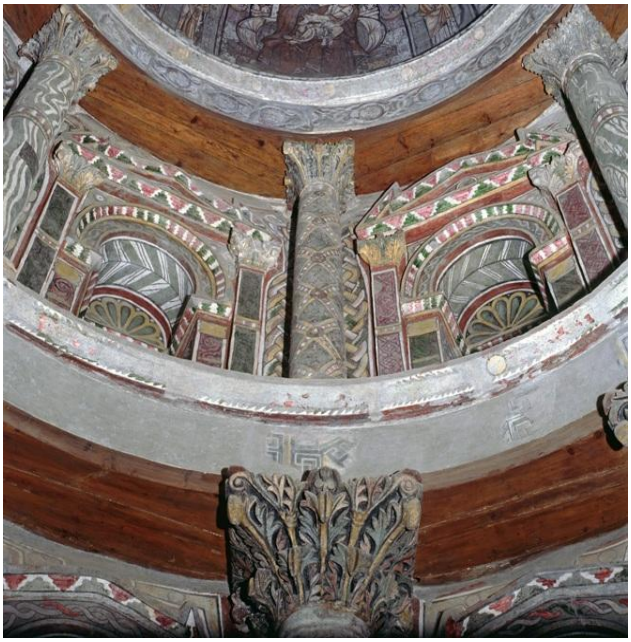

Figure 6: Painted niches in the clerestory, Red Monastery Church, Sohag

Figure 7: Layered paintings in the eastern semidome, Red Monastery Church, Sohag

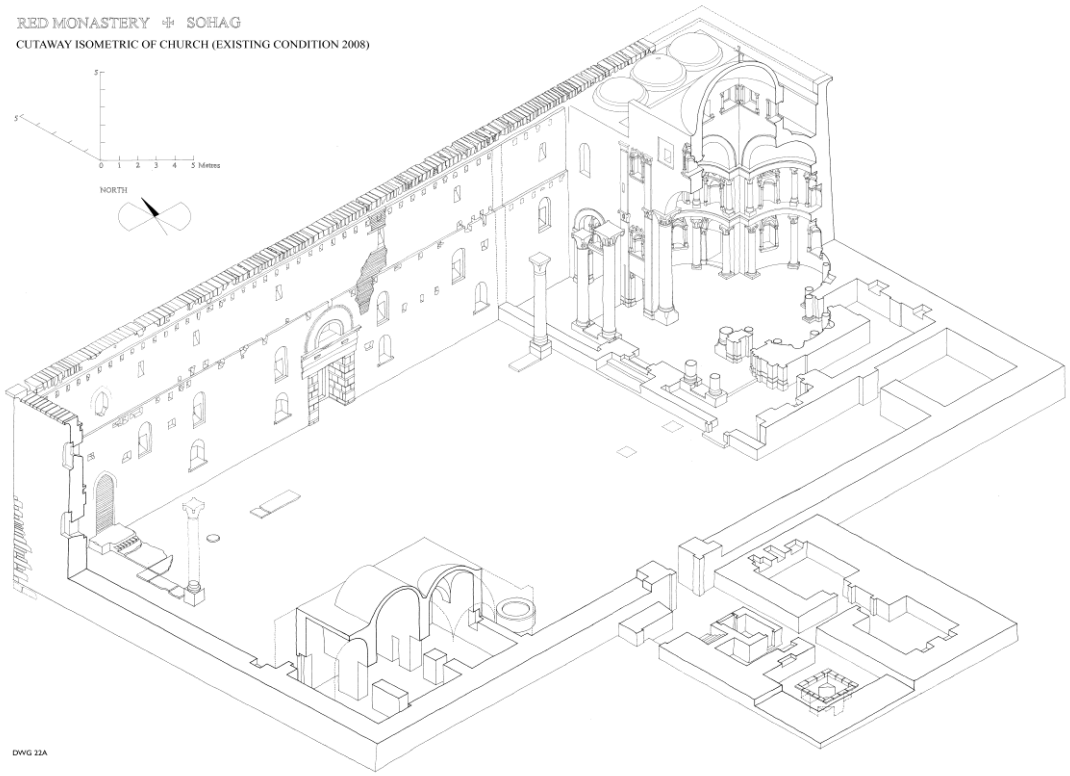

Figure 8: Isometric Drawing of the Red Monastery Church, Sohag

Figure 9: Luigi De Cesaris, Nov. 30, 1961 – Dec. 19, 2011

ARCE FIELD SCHOOL FOR SCA INSPECTORS (Additional Funding Under Cycle Five)

Statement of the Project: Under Modification No. 6, ARCE will offer three field schools to continue building a cadre of skilled archaeologists within the SCA. As a result of having run successfully six field schools (Beginners, Advanced and Salvage Archaeology) in Giza and Luxor, the AERA Field School now has a pool of well-trained and specialized Egyptian staff fully able to excavate, record, teach, and publish in demanding archaeological conditions.

Implementation schedule: Three field schools were planned for implementation at Giza from January 2010 to July 2011. Due to a direct request by the Luxor SCA Inspectorate to hold a Salvage Archaeology Field School in Luxor during 2010, only two will be conducted at Giza. The first was completed in May 2010, and the second was scheduled for Fall 2011.

The Cycle 5 Salvage Archaeology field school was organized in Luxor from January 9th to March 15th, 2010 to train 32 SCA inspectors in salvage and rescue archaeology on the last remnants of the original Luxor town mound directly north of the Luxor Temple. The mound was scheduled to be demolished by the local authorities to the level of the surrounding area prior to any study. The remaining *tell* contained remnants of more than 2,000 years of history of life in old Luxor. Training components included site assessment, site survey and mapping, stratigraphic excavation, and recording archaeological deposits with drawing and photography. Of the total number trained, seven were women and twenty-five were men.

A second field school (under Cycle 5) took place at the Giza Plateau from March 20th to May 13th, 2010, training 29 SCA antiquities inspectors in "Advanced Publication and Analysis." Of the total number trained, eight were women and twenty-one were men. The goal of this Field School cycle was to enable SCA inspectors to practice all the stages of recording, analyzing and publishing archaeological data. In the Advanced Field-Schools (2006 and 2009) and the 2008-2010 Salvage Archaeology Field Schools in Luxor, much progress was made practicing sampling site and archaeological material strategies, and in writing desktop assessments and reports. A series of

lectures and seminars was held on research procedures, in addition to basic English grammar and writing. The group was broken down into six areas of study: excavation, osteology, graphics, ceramics, zoo-archaeology and archaeobotany. The teams retrieved data from the GPMP archive and online database, as well as the library of the German Archaeological Institute in Cairo (DAIK), to create databases in their respective areas. The outcome of the APFS 2010 was a compilation of archaeological reports, over 250 pages long, ready for publication.

Year Eight Results: The third and final "Fall 2011 Mit Rahina Beginners Field School" under EAC Cycle 5 took place during the 8-week period from September 10th to November 3rd, 2011.

The field school site is in the area known as Kom Fakhry, near the ancient city of Memphis (now known as Mit Rahina), which comprises a mixture of mudbrick settlement and stone masonry funerary structures suitable for the field-school training.

The field school was held in collaboration with the Egypt Exploration Society (EES) Survey of Memphis (SoM), directed by Dr. David Jeffreys. This project has for many seasons surveyed and recorded the Memphite settlement in its ancient landscape context. The addition of geo-archaeological work and training in sediment coring and in a wider site and regional survey program is one major reason for locating the Beginners Field School at Mit Rahina and for the collaboration with the SoM.

Emphasis was placed on practical techniques and methods that these young inspectors will be able to use in their respective areas of responsibility. The basic teaching focuses on pragmatic "low tech" skills and methods that will be useful in the working conditions encountered in Egyptian archaeology and the need for rapid, inexpensive intervention in most archaeological sites.

A total of twenty-six (26) students (12 women and 14 men) were organized into five groups, with a rotating survey and osteology group of four students. Each group spent a total of six weeks on site, one week with the lab specialists (ceramics, animal bone, plant remains, archaeological illustration, conservation and object recording), and the final week working on the archive and writing the Data Structure Report (DSR).

The specialists taught in tents set up on the edge of the site. As noticed during the Salvage field schools in Luxor (2008 and 2010) this allowed specialist to interact with excavators in a continual way. The students learnt analysis and recording skills on the material that they had excavated.

To supplement lectures, field and laboratory teaching the students attended seminars and workshops in the afternoons on a range of topics such as: 'Archaeological Illustration Conventions," "Pottery as a Dating Tool", and "Steps in Ceramics Processing".

Two joint field-school directors and four non-SCA site supervisors, as well as one conservator, two ceramicists, one archeobotanist and a zoo-archaeologist oversaw the training. Six specialties were covered: recording and analysis of ceramics, of small finds, archaeological illustration, faunal analysis, floral analysis, and conservation. Nineteen Egyptian supervisors also worked with the student groups, including ten archaeologists, one object registrar, one archivist, two ceramicists, two illustrator/photographers, an osteologist, a zoo-archaeologist and a surveyor.

A basic archaeological kit was provided to the field school students, including excavation and drafting tools, a MoLAS (Museum of London Archaeological Site) manual and a GPMP Site Manual (a site-specific bilingual English/Arabic manual). This kit will enable students to set up an archaeological site, including laying out a grid, excavating, recording, planning, and section drawing.

Total Expenditure through Year Eight: LE 2,390,094 (1,263,398 spent in Year 8)

Estimated Expenditures in Year Nine: LE 0

Total Field School Budget (Cycle 5): LE 2,390,094

Figure 10: Mit Rahina Beginners Field School, Fall 2011

CONSERVATION OF THE SHUNET AL-ZEBIB, ABYDOS

Introduction: This project is a continuation of work done by New York University Institute of Fine Arts (NYU/IFA) with funding by the Egyptian Antiquities Project (EAP) USAID-funded grant which ended in 2003. Under the co-direction of Dr. Matthew Adams and Dr. David O'Connor, work commenced in 2001 to preserve the funerary monument of King Khasekhemwy. It is the best example of Egypt's earliest tradition of royal mortuary building still standing today. Its thick walls still stand to near their original height of 11-12 meters. To date, approximately 50% of the 200-meter perimeter has been conserved using newly made mud bricks of the same size and materials as the original, to re-establish structural integrity that is in keeping with the original characteristics of the monument.

The World Monuments Fund including it on its 2008 Watch List of the World's 100 Most Endangered Sites. Additional funding under Modification No. 6 for three more seasons of work will result in complete stabilization and conservation of this enclosure. The site can be visited on request and provides unique opportunity to observe the oldest mud brick funerary enclosure in existence.

Implementation Schedule: Work is scheduled over four seasons; each of approximately three months duration: Spring 2010 (Year 6), Spring 2011 (Year 7), Spring 2012 (Year 8) and Spring 2012 (Year 9) of which three campaigns will be supported by the EAC Grant.

The first season planned under EAC Mod. 6 was completed at the end of Spring 2010. Work continued on stabilization of the walls and documentation. A second season commenced in mid-January 2011, but was terminated after two weeks when the team was evacuated on Feb. 3rd, due to political unrest. A visit was made in June 2011 to assess damage to the site during the security void, and while the damage at the site was significant, overall the looting had been far less than feared. Looters never approached the Shuneh enclosure at all. Security has been reestablished at the site, and other projects have been working in Abydos as of May 2011.

Year Eight Results: All work budgeted under the EAC Grant for conservation and documentation of the Shuneh has been carried out as of the third season ending Spring 2012. The project team consisted of mud brick conservation experts, preservation architects, archaeologists, surveyor, structural engineer, photographer and draftsmen.

Based on the results of the 2010 season, which allowed the project team to understand the extremely alarming full extent and complexity of the structural problems endangering the interior side of the east wall of the main enclosure, the completion of the stabilization of this area was determined to be of absolutely urgent priority. The team resolved to make the maximum possible effort on the stabilization of this area. In 2012 basic stabilization was completed and the individual areas treated in 2010 were successfully integrated with the 2012 work into an overall comprehensive treatment of the interior side of the wall. The full nature of the condition problems of the wall were not fully understood when the plan of work was developed in 2009, and the treatment ended up being more complex, requiring more labor and time than anticipated. Projected work in some other areas, while necessary in the overall stabilization of the monument, was postponed to enable the team to make the necessary large-scale efforts on the east wall. The 2012 season also saw the following major interventions undertaken:

- completion of the stabilization of the monastic cell voids on the interior side of the east wall, main enclosure
- beginning the stabilization of the high standing southern part of the east wall, main enclosure
- continuation of work on the stabilization of the north gateway area
- beginning work on the stabilization of the south gateway area

In addition, a number of smaller-scale stabilization efforts were made, including structural crack repairs and the filling of hornet nest holes. Repairs were made in a few areas where shrinkage cracks and a mud wash finish was removed that had been applied to new masonry in some areas in the 2004-2005 and 2005-2006 field seasons. In the years since the original work, the team determined that the wash is too reflective and does not convey the desired degree of visual harmony between new work and original masonry. Methods for capping and stabilizing detaching pilasters were tested on the exterior side of the east wall, main enclosure.

Total Expenditure through Year Eight: LE 1,771,574 (LE 0 spent in Year 8)

Estimated expenditures in Year Nine: LE 2,383,566 (covering work done in Year 8)

Total Shunet El-Zebib Budget (Cycle 5): LE 4,155,140

Figure 11: The funerary monument of Khasekhemwy, Shunet El-Zebib, Abydos

DESIGN OF A MUSEUM DISPLAY AT ST. ANTHONY'S MONASTERY

Statement of the Project: St. Anthony's Monastery near the Red Sea is one of the most ancient monasteries in Egypt. With USAID support from 1996 to 1999, ARCE brought to light the unique wall paintings dating to two phases of work in the sixth and thirteenth centuries. The results of this project are published by Yale University Press in *Monastic Visions: Wall Paintings in the Monastery of St. Antony at the Red Sea* (2002), an illustrated book that presents these beautiful medieval paintings and the USAID-funded conservation program that brought them to light. With the additional funding provided under Modification No. 6, ARCE will build upon USAID's earlier investment at St. Antony's Monastery to enhance the visitor experience and tourism potential of the monastery through the creation of a museum. The educational museum will inspire and strengthen understanding among various communities. The museum will enable foreign and Egyptian visitors to interact with real objects, supported by scholarship and knowledge, so as to expand their experience. Over the centuries, the monks have gathered a fine collection of decorative metal (e.g., chandeliers, chalices), icons as old as the eighteenth century, vestments from the seventeenth through nineteenth centuries, including those belonging to Pope Kirillos IV, and household objects of wood and pottery that document the daily life of the monks. These objects of faith and life need proper display and storage. Some also require conservation. The monastery has made an initial investment of building renovations and display case construction to house the museum exhibit.

Work continues on the Monastery of St. Anthony's Museum Project conducted by project personnel Gerry Scott, Rachel Mauldin, Michael Jones, Zakaria Yacoub and Kathleen Scott of ARCE and Fr. Maximous el-Antony of the Monastery. A proposed timeline for the project's next phase: additional refining of the Monastery's collection records, continued selection of objects for exhibition, and continued label text development has been initiated. A preliminary installation design concept has also been worked out

Year Eight Results: During October 2011, initial project equipment and supplies were acquired and brought to the monastery's museum space (see attached list). Also during this period, a database was selected and created for the monastery's collection using the program FileMaker.

In November 2011, project registrar, Rachel Mauldin and project IT specialist Zakaria Yacoub visited St. Anthony's Monastery to begin the process of entering data into the monastery's collections database as an important and necessary first step in the process of creating the museum installation. Additionally, this database will have long-term use at the monastery for purposes of collection management. Collection object catalog sheets, which had been generated by a group of students a number of years ago, were used as the basis for individual object entries in the database. This process enables the collection to be efficiently sorted into objects designated for display in the museum, display elsewhere at the monastery, or housed in object storage.

The collection was found to consist mainly of wood, metal, glass, paper, and ceramic objects in addition to textiles and paintings. Of the approximately 1000 objects in the collection, 800 object records were created in the database. Photo files of downloaded collection object photographs housed at the monastery were also added to the database.

Because the project database can be accessed remotely, Mauldin continued to work on, update, add to, and refine the collection database during the ensuing months.

During June 2012, project coordinator Scott, Mauldin, Yacoub, and project consultant Jones worked both in Cairo and on site at the monastery with Fr. Maximous at several different tasks. Mauldin and Yacoub linked images of the objects to their corresponding text records in the database. To date, approximately 400 images and text records have been linked and checked. At the monastery, initial physical selection of objects for display began (based on individual object use and condition) and possible exhibition themes, label text content, and installation concepts were discussed and developed. A preliminary object list has been created consisting of 132 objects. While these tasks were being performed, additional information was gathered on the objects in order to update and improve the records in the database for use in label text creation and installation design. (For example, measuring those objects for which no dimension was previously recorded.)

Throughout June 2012 Fr. Maximous, Scott, Jones and Mauldin met several times to discuss and refine the development of the installation, text panels, project timeline, design needs, etc. Also discussed was how other areas of the monastery could be used to incorporate some of the objects in the collection as a way of placing them within a context to better tell the monastery's story to visitors of various types.

Year Nine Planned Activities: In January 2013, a site visit will be made to determine the process of completing the exhibition display cases. This visit will make significant strides toward finalizing the object list for exhibition. Also in January 2013 ARCE will solicit proposals for a display design and installation to be completed between April and December 2013.

In April 2013, another site visit to the monastery museum will include the selected display designer and development of the exhibition installation will begin. Texts for panels and labels will be brought into initial draft form. The team will also determine whether objects now housed in the museum might best be presented in other parts of the monastery grounds.

Two brochures are planned for production in Arabic and English: one that will deal with the museum and the objects inside the museum, and another that will deal with how the objects displayed relate to the rest of the monastery.

Total Expenditure through Year Eight: LE 647,083 (spent in Year 8)

Estimated Budget for Year Nine: LE 1,833, 639

Total St. Anthony's Museum Budget (Cycle 5): LE 2,830,460


Figure 12: St. Anthony's Monastery and Museum, Red Sea

SITE MANAGEMENT IN HISTORIC CAIRO

Statement of the Project: Historic Cairo (also known as "Islamic Cairo") is an area universally recognized for its architectural and historic importance and is inscribed in UNESCO's World Heritage List. Yet this area attracts scant attention from visitors, with the only exception being the Khan el-Khalili bazaar. Since the 1980's, the Egyptian Ministry of Culture's Historic Cairo Project and the Supreme Council of Antiquities have worked ambitiously to conserve several historic and religious buildings in the area. Supporting the Egyptian government's efforts, organizations such as ARCE, the German Archaeological Institute and the Aga Khan Cultural Services-Egypt (AKCS-E) have also undertaken conservation projects in the area.

Since 1995, ARCE and USAID have preserved six monuments within close proximity to the Darb al-Ahmar. This strategy to conduct "area conservation" aims to achieve concentrated neighborhood impact, which will attract visitors, further investment and lead to the general upgrading of an entire area. With the Bab Zuwayla as the central landmark, ARCE conserved Bayt al-Razzaz, the Zawiyya/Sabil of Farag ibn Barquq, the minbar and shops of the Mosque of al-Salih Talai'i', the Sabil of Nafisa al-Bayda, the Wikalat Nafisa al-Bayda and the Sabil of Mohammad Ali. These monuments are within walking distance from each other and cover a range of periods in Islamic history, making each of them unique in architectural style and function. The project will include final preparation of the Sabil Mohamed Ali Pasha for visitation by the public, and the development of a visitor orientation center at the Zawiyya Farag Ibn Barquq. Handouts illustrating visitor walking routes will be produced, and signage will be installed, providing practical tourist itineraries with information panels along the streets of the Darb al-Ahmar district.

Originally the proposed plan involved the joint development of a site management plan, in collaboration with Aga Khan Cultural Services – Egypt. A series of meetings was held in 2009, to work on a visitors route to be included in AKCS-E published materials, however the counterparts later became unavailable. Meetings were also held with the SCA inspectorates to discuss re-use of the monuments as visitors' centers. The issue of reaching a collective vision was challenging, however, and it was decided to proceed with a plan that focused attention on the sites conserved by ARCE.

In Year 6, preparation work on Sabil Mohamed Ali was completed, in readiness for a public opening ceremony. Toilets were installed for visitors, and repairs were made in the courtyard and roof to prevent

further damage from water leakage. The site was officially handed over to the SCA in March 2010. Work began on Zawiyya Ibn Barquq in June and was completed by the end of summer 2010.

In mid-2010, Ms. Hoda Abdel Hamid (ARCE) conducted a survey of monuments in the Historic Cairo area and developed a scope of work for adapting the Zawiyya Ibn Barquq as a visitors' orientation center. The results of her survey would form the basis of a site management plan for the Darb Al-Ahmar area. Unfortunately this work was interrupted by Ms. Abdel Hamid's resignation in October 2010.

Year Eight Results: In April 2012 a scaled-down scope of work was proposed and agreed upon by ARCE with Dr. Jere Bacharach, Islamic Historian and Mr. Jarek Dobrowolski, Graphic Design Consultant.

The project will be under the direction of Dr. Jere L. Bacharach, who will supervise and coordinate activities. It will include three major components: signage, printed materials and guided tours for targeted audiences. The duration of the project will be from May 15th, 2012 to May 14th, 2013.

Year Nine Planned Activities: The first component will be **outdoor and indoor signage** to be erected in four locations:

- From four to six outdoor informational signs beside the Bab Zuwayla in the open space on the east side of the east tower.
- Two or three outdoor informational signs outside the entrance to the Bayt al-Razzaz.
- Two or three outdoor informational signs outside the Sabil Muhammed Ali.
- From four to six indoor information panels to be installed in the Zawiyyah Faraj Ibn al-Barquq, which will serve as a Visitors Orientation Center where the printed maps can be distributed, and which will serve as a starting point for the recommended walking routes.
- Up to seven directional signs in the streets pointing visitors to the important monuments in the area. These will be located at the following places.
    - Mosque and Madrasa of al-Ghuri,
    - Sabil Muhammed Ali,
    - Bab Zuwayla,
    - Aqsunqur (Blue) Mosque,
    - Mosque of Sultan Qijmas,
    - Bayt al-Razzaz, and
    - At the entrance to Darb al-Ahmar below the Citadel.

The second component is **printed materials** in the form of maps and loose-leaf notebooks. Two different maps will be produced depicting the Bab Zuwayla and Bayt el-Razzaz areas. Each map will include up to 20 monuments recommended for visiting on one side of an A-3 paper accompanied by a brief description of the monuments on the other side. 400 copies of the maps will be produced in Arabic and 4000 in English.

150 loose-leaf notebooks will be prepared for guides, teachers in the area and students in the Helwan University School of Tourism, as well as private sector travel agents and tour guides. Each monument identified in the recommended Visitors Plan will be described on a single laminated page accompanied by a floor plan and, if possible, an appropriate image of the exterior. The text for these notebooks will be prepared only in Arabic.

Copies of the printed materials will be deposited with the Ministry of Antiquities.

The third component, which is planned for the school break in 2013, will be up to **six guided tours** led by Dr. Tarek Swelim to the sites identified in the Visitors Plan. Those attending the walks will be given the loose-leaf notebooks as a reference with additional copies left at each site and with the State Ministry for Antiquities.

Total Expenditure through Year Eight: LE 812,814 (LE 428,474 spent in Year 8)

Estimated Budget for Year Eight: LE 672,585

Total Site Management in Historic Cairo Budget (Cycle 5): LE 1,485,399

EMERGENCY ASSISTANCE FOR DAR EL KOTOB

MODIFICATION No. 8

Introduction

Modification No. 8 signed December 29, 2012 increased the estimated value of the EAC grant by LE 300,000 to assist the National Library and Archives of Egypt (NLAE), known as the *Dar El Kotob*, in their efforts to stabilize and conserve retrieved books from the burning of the Scientific Institute of Egypt during the clashes between security forces and demonstrators in early December 2011.

Combined volunteer and official efforts led to salvaging some burnt books and manuscripts that were affected by the fire that engulfed the Scientific Institute. Official statements made by Dr. Zain Abdel-Hadi, Chairman of the NLAE on December 27, 2011, indicated that of the forty thousand volumes which had been recovered, some thirty thousand volumes required inspection to determine which documents could be salvaged for conservation. A list of equipment and supplies needed for salvaging procedures was presented to the Library of Congress, and an agreement was reached that USAID would pay the cost of supplying NLEAE with the needed items. ARCE liaised with NLAE to identify priority items and purchase, deliver and install them.

To date, ARCE has purchased the following equipment and supplies for a total value of LE 135,927:

- 1 Vacuum Machine LE 33,000
- 10 Ventilator units LE 9,680
- 100 PVC Sheets LE 35,750
- 125 Kg. Plastic bags LE 1,925
- 130 Kg. Plastic bags LE 2,002
- 8000 Tyvek envelopes LE 53,570

Total Dar el Kotob Expenditure through Year Eight: LE 135,927

Estimated Budget for Year Nine: LE 0

EAC Budget

The EAC Cooperative Agreement No. 263-A-00-04-00018-00 states under Article A.13.4, Advance Payment, that "One year's worth of operation cost plus cycle funds will be disbursed in advance in two separate tranches. Further release of cycle funds will depend upon the grantee's plan, sub-grant completion and review and concurrence by the CTO."

ARCE herein submits its budget and implementation plan for Year Nine of the EAC Grant, and requests approval for the additional obligation of Year Nine operating costs, and the remainder of program costs.

Annex A contains two budget summaries detailing ARCE's 10-year summary budget (Attachment No. 1) and ARCE's 10-year program (Cycle) budgets (Attachment No. 2).

EAC Grant Explanation

Modification No. 1 dated February 25, 2007 awarded an additional LE 50,200,000 to the EAC Grant and revised the program description, enabling ARCE to address the conservation needs of the Karnak, Mut and Luxor temple complexes following the implementation of the USAID-funded groundwater lowering system. The award included additional ARCE operating expenses, and funding for emergency interventions to be sub-granted for implementation by principal stakeholders (referred to herein as "Cycle Three").

In its Year Three workplan (July 2006 – July 2007) ARCE requested USAID approval for a budget revision, submitting a detailed budget for its ARCE-managed Cycle Three Program. This followed after discussions with the USAID/Cairo program office during the period April – June 2007, during which it was agreed that ARCE would establish a financial monitoring system that allows reporting of progress on the five ARCE-managed activities in Luxor. Part of the costs in the Modification No. 1 OE budget were allocated to each specific ARCE-managed outputs.

In its Year Four workplan (July 2007 – July 2008), ARCE requested USAID approval for a budget revision which re-allocated funds within the estimated total budget amount. The budget requested LE 84,260,450 in program/cycle costs over the 5-year project and of LE 28,381,520 in administrative costs that are not specifically allocable to program outputs.

Modification No. 3 signed in July 2007 obligated an additional award of 211,084 to ARCE for mobilization of emergency archaeological monitoring and conservation training. This mobilization payment was, in effect, an indication of USAID's intent to commit funds in response to a proposal submitted by ARCE for an expanded scope of work in the West Bank of Luxor and the Avenue of the Sphinxes on the East Bank.

Modification No. 4, signed in November 2007 awarded an additional LE 10,990,970 to ARCE for the above-mentioned activities. The award included additional ARCE operating expenses, and funding for emergency interventions to be sub-granted for implementation by principal stakeholders (referred to herein as "Cycle Four.") Modification 4 did not include the requested budget revision.

On July 30, 2008, ARCE sent a proposal to USAID for furthering conservation and training initiatives by extending the EAC grant through July 2014. The proposal requested additional OE and program/cycle expenses – and increase of LE 36,609,183. **Modification 5, signed May 3, 2009,** which obligated LE 37,730,886 to the grant, also did not include the requested budget revision.

The budget revision requested by ARCE since June 2007 was included in **Modification No. 6, signed July 7, 2009** which extended the EAC Grant period to July 14, 2014, with an additional funding amount of LE 36,609,183, for the completion of large-scale conservation initiatives and continuation of successful training programs for SCA personnel. The award included ARCE operating expenses and funding for proposed activities to be sub-granted for implementation by principal stakeholders (referred to herein as "Cycle Five.")

Modification No. 7 signed July 7, 2010, obligated an additional amount of LE 31,741,349 to ARCE for program and operating expenses requested with submission of the EAC Year 6 Workplan and Budget.

Modification No. 8 signed December 29, 2012 increased the estimated value of the grant by LE 300,000 to assist the National Library and Archives of Egypt, known as Dar El Kotob, in their efforts to stabilize and conserve retrieved books from the burning of the Egypt Scientific Institute.

Modification No. 9 signed March 19, 2012, obligated an additional amount of LE 8,886,685 to ARCE for program and operating expenses requested with submission of the EAC Year 8 Workplan and Budget.

The following table lists modifications to the EAC Agreement, grant budget revisions, obligations and cash transfers to ARCE.

Grant Modifications and Funding Table

USAID AGREEMENT NO. 263-A-00-04-00018-00

ORIGINAL GRANT:	Estimated budget : LE 51,840,886 // Total Obligated amount: LE 4,356,295
MOD 1	Increase Estimated Value of Agreement by LE. 50,200,000 // New Total Estimated is LE. 102,040,886
25-Feb-07	Increase Obligated Amount by LE.13,680,000 // New Total Obligated is: LE.18,036,000
MOD 2	Incrementally fund the Agreement
24-Apr-07	Increase Obligated Amount by LE.44,963,705 New total obligation is: LE.63,000,000
MOD 3	Increase Estimated Value of Agreement by LE. 211,084 // New Total Estimated is LE. 102,251,970
10-Jul-07	Increase Obligated Amount by LE.211,084 // New Total Obligated is: LE.63,211,084
MOD 4	Increase Estimated Value of Agreement by LE.10,990,000 // New Total Estimated is LE. 113,241,970
13-Nov-07	Increase Obligated Amount by LE.2,300,000 // New Total Obligated is: LE.65,511,084
MOD 5	Incrementally fund the Agreement
3-May-09	Increase Obligated Amount by LE37,730,886 // New Total Obligated is: LE.103,241,970
MOD 6	Increase Estimated Value of Agreement by LE.36,609,183 to new total of LE149,851,153 and extand completion date until July 14, 2014.
7-Jul-09	No increase in Obligated Amount // Total Obligated is: LE.103,241,970
MOD 7	Incrementally fund the Agreement
7-Jul-10	Increase Obligated Amount by LE31,741,349 // New Total Obligated is: LE.134,983,319
MOD 8	Increase Estimated Value of Agreement by LE300,000 // New Total Estimated is LE150,151,153
29-Dec-12	Increase Obligated Amount by LE300,000 // New Total Obligated is: LE.135,283,319
MOD 9	Incrementally fund the Agreement
19-Mar-12	Increase Obligated Amount by LE8,886,685 // New Total Obligated is: LE.144,170,004

USAID CASH TRANSFERS TO ARCE	
Date	**Amount in EGP**
29-Jun-05	7,631,421.00
30-Jun-06	22,536,818.00
27-Sep-07	4,958,769.69
27-Sep-07	28,084,077.31
29-May-09	39,578,265.00
2-Aug-10	31,741,349.00
29-May-12	8,886,685.00
TOTAL	**143,417,385.00**

1st Obligation:	4,356,295
2nd Obligation:	13,680,000
3rd Obligation:	44,963,705
4th Obligation:	211,084
5th Obligation:	2,300,000
6th Obligation:	37,730,886
7th Obligation:	31,741,349
8th Obligation:	300,000
9th Obligation:	8,886,685
	144,170,004

Unreceived: *	752,619.00
Unobligated:**	5,981,149.00

* Difference between amount obligated and amount received.
** Difference between amount obligated and estimated value of agreement.

APPENDIX 1

Articles and Publications on ARCE Projects

1. "Next Time You Are in … Cairo" – TIME, (an article about the Darb al-Ahmar area, which mentions ARCE's involvement in Bayt al-Razzaz) January 2011

2. "Foreign missions resume their archaeological works in Upper Egypt" Al Ahram, October 8, 2011

3. "Archaeologists Syndicate to have headquarters in Al-Razaz House – Al-Ahram English (an article about re-use of a monument conserved by ARCE's EAP project) October 13, 2011

4. "New minister of antiquities, new strategy" – Al-Ahram English, December 8, 2011

5. "SCA appoints new ancient Egypt dept. head" - Al-Ahram English, December 8, 2011

6. "Antiquities minister eyes new policies for Egypt heritage" - Al-Ahram English, December 8, 2011

7. "Tuesday – Press conference to announce the details of complex scientific holdings" – Al Youm es-Saba3, (an article about Dar el Kotob's book salvation project after the burning of the Scientific Institute, which mentions USAID's contribution) January 8, 2012

8. Arabic version of the above article.

9. "A Detailed Document of Inscriptions in Islamic Cairo" – Al-Ahram English (an article about ARCE's former EAP project) July 5, 2012

10. "The Red Monastery, Sohag" – Video screened in the "Byzantium and Islam" exhibition at the Metropolitan Museum of Art. The video is also on the Metropolitan Museum's website: http://www.metmuseum.org/metmedia/video/collections/med/red-monastery

11. Excerpt from "The Great Transition" by Peter Brown – New York Review of Books

12. "ARCE's office moves to the West Bank" – ARCE website

13. "Tribute to Luigi De Cesaris" – ARCE website

14. "U.S. Ambassador and USAID Director visit the National Archives of Egypt" – USAID Press Release, January 18, 2012

15. "USAID/Egypt releases map of cultural heritage in Cairo" -- USAID Press Release, May 28, 2012

16. ARCE Conservation Update – 2011 (published by ARCE)

APPENDIX 2

Site Visits and Presentations on ARCE Projects

2011-2012 Season VIP Visitors

October 10-11, 2011
Khonsu and Luxor Temples
Anne Patterson – U.S. Ambassador to Egypt
Walter North – USAID Egypt Director

November 6, 2011
Khonsu Temple
Shawn Callahan – USAID Legal Department

November 6, 2011
Karnak & Luxor Temples
Ambassador Iguaran – Columbian Ambassador to Egypt
Harvey Eichenfield – USAID Regional Office Procurement
Paloma Corona Aguilar – Instituto Nacional de Antropologia e Historia

November 1-16, 2012: ARCE Tour of Egypt: Gerry Scott, Michael Jones and John Shearman accompanied tour to Old Cairo, Historic Cairo, St. Anthony's Monastery and Luxor with Tarek Swelim and Jocelyn Gohari. On site talks at ARCE Conservation Project sites.

November 13, 2011
Emily Teeter – ARCE President with Oriental Institute Tour Group

December 20, 2011
Luxor
Sylvia Atalla – USAID Project Manager

January 12, 2012
Mut Temple
Dr. Ezzat Saad – Governor of Luxor (with Betsy Bryan and Chuck van Siclen

February 2, 2012
ARCE Luxor Office
Sameh Iskander – ARCE Vice President

February 13-14, 2012
Luxor Projects & Office
Sylvia Atalla – USAID Project Manager
Mohamed Abdel Rahman – USAID Engineer

May 7, 2012
Luxor Projects & Office
Dr. Randi Rubovits-Seltz, MD – ARCE Member

May 29 - 31, 2012
Luxor Projects
Dr. Gerry Scott III

May 30 – 31, 2012
Barbara Mikulski – U.S. Senator
Walter North – USAID Egypt Director

APPENDIX 2 (continued)

Site Visits and Presentations on ARCE Projects

2011-2012 Season: Lectures and Presentations:

September 20, 2011: Memphis Archaeological Field School: Seminar for MSA inspectors. Lecture by Michael Jones, "Archaeology without Excavation."

October 24, 2012: Maadi Community Church Presentation by Michael Jones, "Results of Recent Conservation Work at the Red Monastery Church, Sohag."

November 6, 2012: ARCE Tour of Egypt: Lecture to group on ARCE Conservation Projects by Michael Jones. "Conservation as a Community Based Activity; Methods, Aims and Results."

November 22, 2012: Netherlands-Flemish Institute, Cairo: Annual Cleveringa Seminar, Lecture by Michael Jones, "What Works in Heritage Conservation and Why Egypt needs its own Standards and Guidelines".

January 14-15, 2012: Dumbarton Oaks, Washington DC: Conversations in Byzantine Archaeology Symposium. Two presentations on the work of ARCE by Michael Jones: "An Overview of ARCE's Contribution to the Conservation of Egypt's Cultural Heritage; AD 300 to the Present," and "What I Would Do if I Could: Opportunities for Further Research and Fieldwork Arising from ARCE Conservation Projects."

March 5, 2012: Conference in Luxor entitled - "In Search for New Concepts and Technologies for Conservation and Preservation of the Colossi of Memnon & The Mortuary Temple of Amenhotep III" Presentation by John Shearman, "ARCE Field Schools - Capacity Building"

March 29, 2012: French University in Cairo: Seminar on "Display, Interpretation, Visitor Management and Quality Control at Historic Monuments and Sites in Egypt."

April 17th and June 14th 2012: Saqqara Site Management Training Course for MSA Inspectors. Lecture by Michael Jones, "Site Management: Value and Significance - Presentation and Display."

April 28, 2012: ARCE Annual Meeting, Presentation by John Shearman, "Luxor EAC - 5th Season Update and description of the new APS Project"

April 19, 2012: ARCE Annual Meeting at Providence, RI Presentation by Michael Jones, "Conservation through Documentation: Examples from ARCE Projects 1995-2012."

APPENDIX 3

TRAINING COMPLETED
Egyptian Antiquities Conservation Project
Cooperative Agreement No. 263-A-00-04-00018-00

Course Title	Subproject Name	Location	Start Date	End Date	No. of Males	No. of Females	Total Participants
Beginners Field School #1 (Cycle 1)	ARCE Field School for SCA Inspectors	Giza Plateau	Jan. 25, 2005	March 22, 2005	14	4	18
Apprenticeship Field School #2 (Cycle 1)	ARCE Field School for SCA Inspectors	Giza Plateau	Sept. 29, 2006	December 22, 2006	22	10	32
Beginners Field School #3 (Cycle 1)	ARCE Field School for SCA Inspectors	Giza Plateau	Feb. 2, 2007	April 30, 2007	16	7	23
Advanced Field School #4 (Cycle 1)	ARCE Field School for SCA Inspectors	Giza Plateau	Feb. 7, 2009	April 3, 2009	23	15	38
Avenue of the Sphinxes (Cycle Four)	Salvage Archaeology Field School #1	Luxor	January 5, 2008	March 27, 2008	19	7	26
Salvage Archaeology at the Historic Mound north of Luxor Temple (Cycle 5)	Salvage Archaeology Field School #2	Luxor	January 9, 2010	March 15, 2010	25	7	32
Analysis and Publication Field School #5 (Cycle 5)	ARCE Field School for SCA Inspectors	Giza Plateau	March 20, 2010	May 13, 2010	21	8	29
Beginners Field School #6 (Cycle 5)	ARCE Field School for SCA Inspectors	Mit Rahina (Memphis)	September 10, 2011	November 3, 2011	14	13	27
Luxor Study Analysis Field School (Cycle 3)	Salvage Archaeology Field School #3	Luxor	April 9, 2011	June 3, 2011	8	6	14

APPENDIX 3

TRAINING COMPLETED
Egyptian Antiquities Conservation Project
Cooperative Agreement No. 263-A-00-04-00018-00

Course Title	Subproject Name	Location	Start Date	End Date	No. of Males	No. of Females	Total Participants
Registrations and Collections Management Department (RCMD) Protocol	Egyptian Museum Registrars Training Project	Egyptian Museum, Cairo	August 1, 2006	January 31, 2011	1	9	10
VI European Registrars Conference	Egyptian Museum Registrars Training Project	Basel, Switzerland	November 9, 2008	November 12, 2008	0	4	4
International Registrars Symposium	Egyptian Museum Registrars Training Project	Chicago, IL (USA)	November 5, 2009	November 9, 2009	0	3	3
EAC Conservation School for Architectural Conservators – Season #1	Luxor Groundwater Lowering Response Project	Luxor	September 1 2007	April 30, 2008	10	14	24
EAC Conservation School for Architectural Conservators – Season #2	Luxor Groundwater Lowering Response Project	Luxor	September 1, 2008	April 30, 2009	10	16	26
EAC Conservation School for Architectural Conservators – Season #3	Luxor Groundwater Lowering Response Project	Luxor	October 1, 2009	April 30, 2010	13	13	26
EAC Conservation School for Architectural Conservators – Season #4	Luxor Groundwater Lowering Response Project	Luxor	October 1, 2010	April 30, 2011	27	27	54
EAC Advanced Conservation Training for Architectural Conservators – Season #5	Luxor Groundwater Lowering Response Project	Luxor	October 1, 2011	April 30, 2012	15	13	28