

## **Stony Brook-USAID Iraq HEAD Project–Final Report**

### **Objective 1: Administration**

The project was supported by a single administrator, Nancy Rifkind, who managed the finances for both the Archaeology and Environmental Health initiatives. She held a full-time appointment from January 2004 through December 2005.

#### **Task 3: Ensure Personnel Safety and Security**

Necessary safety equipment, such as body armor, were purchased for use during visits to Iraq. When in Iraq we utilized the services of the security facilities of Near East Resources.

### **Objective 2: Archaeology Project**

#### **Task 1: Establish Coordination Office, Baghdad**

Rather than have a single Chief of Party for the two disparate parts of our program, we hired two part-time Chiefs of Party. The Archaeology Program was able to engage the offices of Dr. Donny George, initially the Director of the Iraq Museum, now the Secretary for the State Board of Antiquities and Heritage. Dr. George knows all the archaeologists in Iraq and provided invaluable advice, already had an office through which he could work, and had a 914 area code MCI telephone, which made communications much more cost effective. He coordinated all of our activities from Baghdad, and was supported by the program from March 2004 through December 2005.

Dr Ali Yasin, Professor of Archaeology at Mosul University served as our coordinator for all issues relating to Mosul University, and Dr. Ghazi Mohammed, the Chair of the Department of Archaeology at Baghdad University served as our coordinator for issues relating to Baghdad University. After December 2004, Omar al-Ashari, the Director of the Computer Center at Baghdad University served as our coordinator for IT issues.

Since all travel in and out of Iraq, and most visa applications needed to take place in Amman, it was important for us to have a base there. The American Centers for Oriental Research have served this purpose. Under the direction of Dr. Pierre Bikai, they have managed travel and visa applications for us and have hosted our participants while in Amman. They also provided the facilities for the 2004 Summer Workshop and the 2005 OCLC Librarian Training Program.

We also contracted with Near East Resources, an Iraqi company with experience in both security (they are responsible for the security of Japanese Embassy personnel, among others) and contractual work in Iraq (they were heavily involved in the development of the MCI telephone system in Baghdad). They provided security when we were in Iraq and conducted the rehabilitation work, and provided computerization and internet access, even when the situation

was at its most dangerous. Our project would not have been possible without their enthusiastic cooperation.

Staff in the United States consisted of Dr. Jennifer Pournelle, for the first year only, and a part-time graduate student who was a native speaker of Arabic.

### **Task 2.1: Refit Departmental Libraries**

Extensive renovations were conducted at the Department of Archaeology Library at Baghdad University, and at the Assurbanipal Collection within the Main Library at Mosul University. This included providing air conditioning, new library shelves, security and, in the case of Baghdad University, a new reading room. Once internet connections had been established (see below), computers were added to the facilities, including both scanners and printers to enable students to copy materials in the libraries.

### **Task 2.2: Equipment and Facilities Rehabilitation**

#### *A. Upgrade Department Facilities in Baghdad and Mosul Universities*

The upgrading of departmental facilities took place in two stages. We had originally planned to complete all rehabilitation at both Baghdad and Mosul Universities in the summer of 2004, but it was then that Mosul University contemplated moving the Departments of Archaeology and Assyriology to a new building, resulting in our delaying our work until this had been accomplished. In the event this move was abandoned, so we completed all rehabilitations of those departments by early Fall 2004.

The work included rewiring the buildings, providing back-up generators, renovating classrooms, providing new projection equipment and some furniture. In both departments we established new computer facilities for use by the students, as well as making computer equipment available within faculty offices. Given the political situation, we also provided for the physical security of the new facilities.

#### *B. Establish IT Capacity to Support Libraries, Teaching and Research*

VSAT equipment was set up at both Baghdad and Mosul Universities, and we supported satellite internet access for both Universities until the program came to an end in December. Mosul University, however, received a new fiber optic system from other sources, and now receive their internet access that way.

#### *C. Additional Teaching and Research Support*

Following a meeting in Amman with representatives from Baghdad University in December 2004 (the representatives from Mosul University were afraid to join this group), we agreed to provide a cost share for a computer classroom at Baghdad University which would be used to provide courses in computer literacy to faculty and students in the Archaeology Department. We were able to negotiate a similar arrangement with Mosul University, and by the

Fall of 2005 both had computer classrooms set up for this purpose, a 30-seat facility at Baghdad University and a 20-seat facility at Mosul University.

### **Task 2.3 Instruction within the Middle East**

#### *A. Summer Workshop in Amman, June-August 2004*

In the summer of 2004 we held a 10-week workshop designed to update Iraqi faculty and graduate students in archaeology and Assyriology. There were eight American and European instructors (Drs. Elizabeth Stone, Paul Zimansky, Alan Walmsley, Daniel Snell, Katheryn Slansky, Eckard Frahm, Marianne Feldman and Roger Matthews) and fifty-five Iraqi participants from Baghdad and Mosul Universities and a few from the Iraq Museum. Lectures (with discussion) were provided every morning six days a week, with two lectures each day. Instructors used PowerPoint presentations, with side by side translations into Arabic. Three afternoons a week were devoted to two-hour sessions of technical training—in various computer applications, digital photography, internet resources and surveying equipment. On Saturday afternoons we arranged trips to visit various archaeological sites in Jordan—usually led by the directors of the excavations, and we had a Tuesday afternoon lecture series. This workshop was held at ACOR in Jordan, which has an excellent library with fine collections in archaeology which were made available to the participants. We set up a computer facility in the basement for instruction, and were able to negotiate licenses for GIS and remote sensing software packages for this training program.

#### *B. The Fourth International Convention on the Archaeology of the Ancient Near East, Berlin, April 2004.*

We had hoped to bring a large number of Iraqi faculty and graduate students to Berlin for this international convention, but the Germans did not provide visas for those who did not already have passports. We were therefore only able to bring five participants, three faculty from Baghdad University, and one faculty member and one graduate student from Mosul University. This occasion did provide an opportunity for these colleagues to reconnect (or in the case of the graduate student to connect for the first time) with international colleagues.

#### *C. Archaeological Field School in Turkey*

We were able to obtain a \$17,400 supplement to Elizabeth Stone's NSF research grant to support bringing six students and one faculty member from Baghdad University for a six-week training program at the Urartian site of Ayanis in Eastern Turkey. Preparation for this program included a trip by Elizabeth Stone, Paul Zimansky, Dr. Ghazi Mohammed (Chair of the Department of Archaeology at Baghdad University) and Zuhair al-Sammaraee (the faculty member chosen to participate in the program) to Izmir to meet with the overall director of the Ayanis project, Dr. Altan Çilinguro<sup>TM</sup>u. Unfortunately, although the visa applications were submitted on time, the Iraqi participants were not included in the excavation permit so they were not able to take advantage of this opportunity.

#### *D. Jerash Fieldschool*

Dr. Alan Walmsley, who had participated in our 1994 Summer Workshop, agreed to include three Iraqi students in the archaeological fieldschool which he ran at Islamic Jerash in the summer of 2005. Once again, though, this program fell through when the Jordanians established a new procedure for Iraqis whereby they needed to undergo a three-month security clearance before they could participate in an archaeological program. Unfortunately, this was established only two weeks before the field school was due to commence, so they were unable to take advantage of this opportunity.

#### *E. Rencontre Assyriologique International*

We had hoped to bring a number of faculty members and graduate students from Baghdad and Mosul Universities to attend the biannual meeting of Assyriologists, held in July 2005 in the United States. Once again this plan was frustrated—but in this instance it was due to the slow progress by our Iraqi colleagues in completing the complicated process of US visa application. We suspect that they were afraid to travel into the Green Zone for their interviews—and perhaps afraid in general of traveling to the United States.

#### *F. Istanbul Islamic Archaeology Conference*

We had better luck with the Conference in Islamic Archaeology held in Istanbul in April 2005. Ten faculty and graduate students from Baghdad and Mosul Universities obtained their Turkish visas, traveled to Istanbul and attended this, the first ever international conference on Islamic Archaeology. Both our Iraqi colleagues and their Turkish hosts expressed great satisfaction with this occasion.

#### *G. English Instruction in Iraq*

From January 2004 through December 2005 we have provided English instruction for students (and faculty) at Baghdad and Mosul Universities. These courses have been designed not only for those planning travel to the United States, but also for those who desire increased ease in reading sources in English, communicating with foreign colleagues through email, and obtaining information through the internet.

### **Task 2.4: Instruction in the U.S.: Intensive M.A. Program In Archaeology**

During a visit to Iraq in March 2003, Elizabeth Stone and Paul Zimansky reviewed the dossiers of and interviewed 26 candidates for our MA program, with the candidates chosen from graduates of both Baghdad and Mosul Universities. From this group they selected eight candidates, four from Baghdad and four from Mosul. Since none of those interviewed had adequate English language skills, all were immediately provided with intensive English classes.

Since only one of the group already had a passport, the first step for the others was to obtain travel documents. Unfortunately, Mosul University refused to help its candidates in this procedure, effectively preventing them from participating on our program. The four candidates from Baghdad University, however, obtained their US visas and traveled to New York in early July, 2004. There they were enrolled in our Intensive English program during the summer and

fall of 2004. During the fall of 2004 they also took one seminar with Paul Zimansky and Elizabeth Stone.

We provided each student with a laptop computer on their arrival. All have now mastered the computer skills necessary for academic work.

This group began their graduate training in earnest in the Spring of 2005. At that time, as it became clear that the USAID funding was likely to last for no more than a single year, we obtained funding from the Andrew Mellon Foundation that would allow the group to complete their MA program, and also to include one of the Mosul University candidates.

At the time of writing, Spring 2006, three of the Baghdad students are in the process of writing their MA theses, and are expected to complete their program over the summer. One, Helen George, applied to and was accepted by Stony Brook's PhD program, with funding. The other two, Zainab Mohammed and Lina Mahmod are expected to return to Iraq in late summer 2006.

The fourth student from Baghdad University, Zaid Ibrahim, obtained a position as the teaching assistant for Arabic for the 2005-6 academic year. This has allowed him to take three years to achieve his MA degree. Since he began with the least English, this means that he can take English as a Second Language courses in addition to his courses in archaeology. We expect him to graduate in the Spring of 2007.

The cost of the training for the University of Mosul student, Ghufraan Ahmed, has not been born by USAID, but he has now completed his intensive English training and is beginning his graduate work. Like Zaid, he will have three years of training since he will act as the teaching assistant for Arabic next year.

All five students have also been provided with archaeological field experience. In the summer of 2005 two participated in excavations conducted by the Arizona State Museum, and the other two spend the summer at Crow Canyon, learning both excavation and analytical techniques. We were also able to send Ghufraan Ahmed to participate in an archaeological field project in Yemen run by Ohio State University in the winter of 2005.

This program will provide Iraqi Universities with a new cadre of faculty with advanced training outside Iraq, something which has been almost completely absent over the past two decades.

#### **Task 4.3: Teaching and Research labs**

Part of our program of rehabilitation involved providing equipment that can enhance the teaching and research facilities of the departments at Mosul and Baghdad Universities. Equipment provided includes digital projectors, digital cameras, surveying equipment, and the

provision of a vehicle to be used by Baghdad University as part of the archaeological field school which they conduct at the archaeological site of Sippar.

#### **Task 4.4: Remote Sensing and GIS**

Our original proposal included extensive training in remote sensing (the analysis of imagery gathered by satellites and geophysical prospection) and Geographic Information Systems—modern computerized mapping. These approaches have become fundamental to archaeological research over the last fifteen years, but were not known in Iraq. We felt, however, that the prerequisite for such training was basic computer literacy, so we scheduled this activity for the later years within our three year workplan. In the event, only the first year was funded. However, we obtained funding from the National Endowment for the Humanities, the World Monument Fund and the State Department to offer a four-month training program in remote sensing and GIS during the Spring semester 2006. We had planned to offer this program to two faculty from Baghdad University, two from Mosul University and two professionals from the Iraq Museum. All will be provided sufficient training to permit them to return to Iraq and train others. On their departure they will be provided with a large amount of data, as well as course materials translated into Arabic. Unfortunately, the two faculty from Mosul University decided against attending the program a week before they were scheduled to depart.

We have negotiated software donations for this project from Environmental Systems Research Institute—the authors of ArcView and ArcGIS software, the most used GIS programs. We have also negotiated an educational software license with Leica Geosystems, who are responsible for the Erdas Imagine software, again the industry standard. The latter was supported by our grant from USAID.

#### **Task 4.5: Library**

Much of our effort was focused on improving access for our Iraqi colleagues to published information. In addition to the rehabilitation of the library spaces described above, we greatly expanded their library holdings in both new and older books, have digitized important older materials to make them available over the Internet, have provided access to internet resources such as Jstor and Anthropology Plus, and provided training to librarians in computer cataloging.

The books added to the Baghdad and Mosul University libraries fall into two categories. One is a collection of some two thousand new books. The archaeology titles were selected by Elizabeth Stone, and the Assyriology titles were selected by Piotr Michelowsky of the University of Michigan. These volumes were shipped, together with cataloging by OCLC, to Iraq in the summer of 2005 and are now being used by the students and faculty there.

We also purchased the academic library of Professor Kirk Grayson on his retirement from the University of Toronto. This library of some two thousand volumes focused on Assyriology and included many rare and hard to find volumes, journal runs and the like. These

books were divided between Mosul and Baghdad libraries and shipped together with the new books. We also included OCLC cataloging for those volumes already in Worldcat.

We have been able to negotiate free 3-year licenses for Jstor, which provides on-line access to articles in the social sciences, including archaeology. Moreover, following negotiations with Jstor with regard to them adding more journals specializing in Near Eastern archaeology to their roster, they decided that they would add these journals without contributions from ourselves. Thus the next year or so should see an increase in the journals of interest to the archaeologists in Iraq that are available through Jstor.

We also purchased a three-year license to provide Baghdad and Mosul Universities with access to Anthropology Plus, which provides information on journal literature in archaeology. Our hope had been that our Iraqi colleagues would use this information to order articles from Stony Brook University through Interlibrary Loan. Although we provided this service to them, only rarely did they avail themselves of it.

We also ran a one-week training program for librarians from Mosul and Baghdad Universities in computer library cataloging. This was held at ACOR in Amman in November 2005 and was run by OCLC. The participants have expressed a strong appreciation of this program. Here the Mosul University contingent seem to have gained the most. This is because their main library remained intact following the looting in April 2003, so we could include the very active head of the Mosul University Library. He is ensuring that the computer equipment needed to take advantage of OCLC's making Worldcat available without cost to the Iraqi libraries is present at Mosul. The situation at Baghdad University is very different since there, although the archaeology departmental library remained intact, the main library for the Faculty of Arts was burned to the ground, leaving that part of Baghdad University without personnel from the main library to spearhead the computerization of their collections—or indeed any collections to be computerized.

Our library initiative would not have been possible without extensive help from the Director of Libraries, Christian Filstrup, and his staff.

### **Objective 3: Environmental Health Project**

#### **Task 3: Scope and Strategy**

##### *A. Visit to Iraq*

Dr. W. Hailoo, program director, and assistant program director visited Iraq in December 2003 to assess the needs and applicability of the proposed program. Meetings were held with the Minister of Higher Education, Minister of Environment, Deans of Medical Colleges of Baghdad, Basra and Mosul. All agreed on the plan and to have the three EHERCs housed within the three major medical colleges. Two additional centers were created at a later stage at Babylon and

Erbil universities. The Deans agreed to function as the Centers Directors and they in turn appointed the Coordinators for the EHERC.

*B. Task: Establish three national Environmental Health Educational & Resource Centers (EHERC) [this activity is outlined below under Task 4]*

The Chief of Party (COP) was appointed and support staff was hired establishing the COP office.

### **Task 3.2 Program Professional and Management Structure**

#### *A. Assemble Program Office/Team/US*

With the Department of Environmental Health behind him, Dr. Wajdi Hailoo developed a staff structure to support the program. He hired a Coordinator, an Administrative Assistant, an Educational Assistant, a library support specialist and secretarial support. We also received help from the Health Sciences Library Staff and three senior scientists from Stony Brook Universities were provided extensive help in the technical, education and research components of the program.

#### *B. Advisory Board.*

The Advisory Board was appointed and lead by the University Vice President for Economic Development and attended by senior university and community members. The mission of the advisory board was to advise and help direct the program leadership in its efforts to structure, implement and evaluate a successful program while assuring that the highest quality product was provided to the benefit of the Iraqi people. To achieve this mission, the Board gave guidance and advice to the program through regular meetings where progress was discussed and necessary support provided.

#### *C. Consultants.*

Three outstanding environmental health specialists were identified and agreed to help with the program. Their services were used as needed.

### **Task 4: Workplan and Activities**

#### **Task 4.1: Building the Centers Infrastructure and Management**

##### *A. Outreach*

To address Iraq's environmental and related public health needs and to enable Iraqi universities to build a modern training and research program in environmental health, we established five Environmental Health Training and Resource Centers (EHERC) in the central region at Baghdad and Al Mustansiriyah medical colleges, South central region at Babylon medical college, southern region at Basra medical college, northern region at Mosul medical college and in Kurdistan region at Salahadin (Erbil) medical college. These EHERCs will be an important resource for the new government, community and other organizations working on environmental problems and associated health issues. An additional goal was to organize and train a core group of faculty at each Center that will be involved in training research techniques and provision of health and preventive services. The infrastructure of each Center included modern teaching equipment, a specialized collection of library books and journals, internet-enabled computers for faculty and environmental analyses lab equipment. The three major

centers were provide with vehicles necessary for their field work. The Deans of the colleges enthusiastically lead these centers along with coordinators; senior public health faculty, to run the daily operations of the EHERC.

*B. Minigrants see Task 4.7; C. Environmental Health Conference see Task 4.6; D. Training of Environmental Health Specialist see Task 4.4*

### **Task 4.3. Orientation and Training for Centers Leadership and Staff in the U.S**

#### *A. Center Directors, Deans; B. Coordinators*

The Center Directors (Deans) and Center Coordinators (senior faculty) from the medical colleges hosting the initial three centers (at Baghdad, Basra and Mosul) and the COP attended an extensive orientation course at Stony Brook University from May 6 to June 4, 2004 to discuss the program's plans and implementation. The visit also provided an opportunity for them to meet with the Stony Brook University leadership, students and researchers, and to exchange information and obtain feedback on issues related to public health in Iraq. The itinerary included an intensive and diverse program of educational activities, observing clinical and environmental health surveillance programs, touring Stony Brook University's scientific research projects, and field trips to neighboring public environmental health agencies.

#### *C. Lab Technicians and Hygienists*

Each center to hired two lab technicians who were supported by the program. Job descriptions and details of the qualifications required were provided to each center and the technicians were recruited accordingly. To reduce cost and to avoid security and visa issues, a training course was organized for the technicians in Amman. One of the lab equipment sets was assembled in Amman so that the students and international trainers could conduct their didactic and hands-on training. The course was successfully conducted between September 5<sup>th</sup> and the 15<sup>th</sup>, 2005. Lecturers included specialists from the manufacturer, consultants and faculty and staff members from Stony Brook University. Each participant received a course completion certificate. The knowledge gained during this course will enable the Iraqi participants to operate laboratory equipment at their respective centers in Iraq, and to teach these skills to other technicians. The participants expressed considerable satisfaction with the outcome of the course, and were very pleased with the format and lecturers.

### **Task 4.4: Training of Environmental Health Specialists in Amman, Jordan**

The training course for Iraqi medical doctors was conducted in February 2005 in Jordan. Forty public health specialists participated in the course from a number of different universities, as well as private and governmental sectors in Iraq. Teaching was provided by senior specialized faculty from Stony Brook University and other academic institutions, as well as Iraqi faculty. The course was well received and not only provided knowledge, but also brought specialists from various regions and sectors together to link and work on issues that affect the entire country. The success of the course was measured in different ways:

1. Pre and post knowledge testing which showed more than 20% improvement.
2. Comments on the lectures and overall evaluation forms.
3. Letters received from the participants after the course.

4. Utilization of knowledge and material provided in conducting courses in Iraq (7) for the local medical community.

#### **Task 4.5: Deliver Environmental lab Equipment and Field Vehicles**

A full range of environmental lab equipment with diagnostic and analytical capabilities were selected through a committee made up of senior faculty from the environmental health department and other sciences. All were purchased and shipped to the target centers. Since Erbil and Babylon EHERCs were added late in the program and because of limited funding, these two centers received less equipment than the other three. These labs are to be utilized for environmental and biological testing for research and exposure assessment. The labs will be available for the Centers' staff, faculty from the college, and other academic and government environmental institutions. A field vehicle was also provided to each lab for field work such as sample collection, surveillance and analysis.

#### **Task 4.6: Organize an Environmental Health Conference in Iraq**

The International Conference on Health and the Environment in Iraq was held in Amman between September 19-22, 2005. More than 200 Iraqi physicians, scientists and researchers attended and presented more than 50 papers and a similar number of posters. More than 20 researchers and specialists attended from at least ten countries other than Iraq and the US. The conference was a very successful educational event and all those who attended including a representative from USAID Baghdad office enjoyed the conference very much. Representatives of the Ministry of Health and Environment and Head of the WHO Iraq office as well as several Deans and senior faculty and governmental officials attended. The conference also provided a venue for the Iraqi medical and scientific community to exchange ideas and information regarding the status of health and environmental issues in Iraq.

#### **Task 4.7: Mini-Grants**

The mini-grants program was designed to help seed long term research projects in environmental health and sciences, foster Stony Brook University-Iraq collaborations, strengthen educational resources and promote environmental health as a field of study among students. All research was conducted in Iraq on topics related to the environment and health issues specific to Iraq. And all were led and conducted by Iraqi professionals. Fifteen mini-grants were awarded on a competitive basis to researchers and scientists from various universities. The range of projects included publishing books on safety, research projects, surveillance, workshops, and educational activities. A list of the various minigrants organized by recipients and centers had been submitted previously. Two of the projects could not be accomplished due to logistical and security reasons. The funds for these two projects was returned and used to fund other activities. **Task 4.: Information and Communication Tools**

One of the areas where Iraqi Universities have fallen behind the most is informatics. The information revolution that swept institutions of higher learning around the world largely bypassed Iraq as a result of sanctions and restrictions on information flow. Access to computers was limited and networking and remote access virtually impossible. The critical components of this infrastructure are telephone and internet connections and these were provided to the five centers. Each center received a complete satellite internet system with a set of networked computers thus providing an up to date system for communication and information access.

**Task 4.2: Computerization**

Our program provided desk-top computers equipped, together with appropriate software, together with the internet facilities. Each center was also allowed to purchase a laptop for field work. No training was needed since most of our partners were skilled enough to use the computers for communication, research and teaching.

**Task 4.3: Teaching and Research Labs**

Various teaching and instruction tools have been provided to the centers to enable them to carry out their educational and research missions. These included meeting rooms furniture, audiovisuals, books, journals and computers.

**Task 4.5: Library**

Rebuilding and modernizing academic libraries is a key component in creating a viable higher education learning and research environment. Books focusing on environmental and public health, sciences and related disciplines were identified through a careful examination of hundreds of textbooks and other works on environmental and public health, epidemiology, ecology and toxicology. These were either purchased or received as donations from other universities, individuals, international organizations and government agencies and were shipped to the five EHERCs in Iraq. This process created regional specialized libraries available to researchers, staff, faculty and student of the various universities.