In 2019–20 we completed the eighth year of cultural heritage preservation projects in Afghanistan and carried out the second year of our heritage training initiative in the post-Soviet republics of Central Asia. The three cultural heritage grants in Afghanistan are funded by the US Department of State and the US Embassy in Kabul. The Central Asian Heritage Project is based in Uzbekistan and supported by the US Embassy Tashkent.

**AFGHANISTAN**

Since 2012, we have been carrying out our cultural heritage projects in Afghanistan in partnership with the National Museum of Afghanistan (NMA) with its director, Fahim Rahimi, and the Afghan Institute of Archaeology (AIA) with its director, Noor Agha Noori. These efforts are funded by three grants: Core Operations, the Mobile Museum Outreach Project (MMP), and the Afghan Heritage Mapping Project (AHMP). At the US Department of State, our key partners have been Dr. Laura Tedesco, the cultural heritage program manager at the Office of Press and Public Diplomacy, responsible for Afghanistan and Pakistan, while financial management of the grants has been overseen by Grachelle Javellana. At the US Embassy Kabul, we especially thank cultural affairs specialist Muzhgan Azizy. The OI Chicago team includes project director PI Gil Stein, Grants Administrator Matthew Perley, and Afghan Heritage Mapping Partnership Project Manager Andrew Wright. Our Kabul team comprises Field Director Alejandro Gallego Lopez, Head Project Conservator Fabio Columbo, and Assistant Conservator Elisa Pannunzio (fig. 1).

In December 2019, Chicago team members Gil Stein, Matthew Perley, and Andrew Wright traveled to Kabul to review the progress of our projects in Afghanistan; we held update and planning meetings with our Kabul team and conferred with Afghan officials Madame Hassina Safi, minister of information and culture (fig. 2), Afghan Institute of Archaeology (AIA) Director Noor Agha Noori, and National Museum of Afghanistan (NMA) Director Fahim Rahimi.

Our partnership projects with the NMA and the AIA have several key goals: a) develop a bilingual objects-management database for the NMA; b) conduct a full inventory of the NMA’s holdings; c) train NMA conservators and curators, restoring sculptures from the early Buddhist monastic complex of Hadda; d) conduct museum outreach programming.
(the “Mobile Museum” grant); e) partner with the AIA to develop a GIS database of archaeological and other heritage sites in Afghanistan based on satellite imagery; and f) train the staff of the AIA in the use of geospatial databases for archaeological research and cultural heritage preservation. The Core Operations grant supports the “OI House” field headquarters in Kabul and shared infrastructural needs for all our work in Afghanistan at the NMA and AIA.

The University of Chicago Oriental Institute’s Afghan Heritage Mapping Project (AHMP) focuses on three key areas:

Discovery and spatial inventory of archaeological sites across Afghanistan, especially in areas of deep historical significance and under acute threat from armed conflict.

Development of innovative techniques for tracking the condition of archaeological sites and analyzing spatiotemporal patterns in looting.

Training a first cohort of Afghan spatial analysts at the AIA in the use of AHMP-provided tools and techniques for heritage preservation, management, and planning.

The AHMP Chicago-based staff consists of Tony Lauricella (CAMEL Lab acting director), Andrew Wright (AHMP project manager), and Jennifer Feng (data analyst and AHMP assistant project manager), assisted by three University of Chicago student data analysts.
Starting in March 2020, the international disruptions due to the COVID-19 Coronavirus pandemic forced us to curtail international air travel to work with our AIA colleagues and continue our program of training courses in GIS and the use of satellite imagery. We postponed our plan to teach two capacity-building workshops in Kabul in spring 2020 and have focused our efforts instead on planning for remotely taught courses and on continuing our Chicago-based work of data acquisition, documentation, and development of our ArcGIS geospatial database of Afghan heritage sites.

In Chicago, our team shifted from working at the CAMEL Lab in the Oriental Institute to working remotely from home. We continued with our work of discovering, mapping, and documenting archaeological sites across Afghanistan in our ArcGIS geospatial database. Our thirty-three current search blocks together form a contiguous swath of territory across the north, west, and south of...
Afghanistan, in a “C-shaped” arc surrounding the Hindu Kush Mountains. As of June 2020, we have covered a search area totaling 191,020 sq km, roughly 29 percent of the total 652,861 sq km total area of Afghanistan. To date the AHMP has identified 10,208 sites and 13,676 underground irrigation systems, for a total of 23,884 locales with cultural-heritage significance (fig. 3).

In parallel with our mapping partnership with the Afghan Institute of Archaeology, we are also carrying out several projects in collaboration with the National Museum of Afghanistan. The Mobile Museum Outreach Project Partnership is a collaboration with the National Museum of Afghanistan (NMA) to develop and implement a national-scale educational outreach program designed to raise awareness of the NMA’s important collections among high school students (grades 10–12) through in-class presentations in boys’ and girls’ high schools and orphanages in six cities across Afghanistan: Kabul, Herat, Mazar-i Sharif, Bamiyan, Kandahar, and Jalalabad (fig. 4). The Mobile Museum uses innovative digital technology, object-based learning, and traditional educational tools in multiple pathways of engagement with students. Class presentations by trained staff include video, 3-D printed replicas of museum objects, posters and banners for permanent display, and notebooks with information about the NMA for students to take home. The range of class presentations is being augmented by posting the program materials on the NMA website, at Lincoln Learning Centers, and by providing each school with banners and posters highlighting the civilizational history of Afghanistan and the objects in the National Museum.

By the end of December 2019, we had presented MMP programs in live in-class or in live webcasts to 12,546 students at 144 schools, orphanages, and Lincoln Learning Centers across Afghanistan. Videotaped interviews and 11,194 post-program evaluation forms were collected and formed the basis for evaluating the quality of the program and its impact on Afghan high school students (fig. 5). Our programs paused when schools across Afghanistan were closed for winter break from January through the March 21 Nowruz (New Year) holiday.

As with all of our projects in Afghanistan, the work of the Mobile Museum was seriously disrupted by the COVID-19 coronavirus pandemic. On March 15, 2020, the Afghan government closed all schools in the country, and as of June 30, it remained unclear when they would reopen. COVID-19-based bans on travel by University of Chicago staff, the curtailing of key air travel links to Afghanistan, and the closure of the Kabul public schools together made it impossible for the MMP to conduct in-class programs.

Fortunately, our Afghan colleagues on the MMP team were able to continue their work on two projects that ran in parallel with the in-class school programs. We completed the editing and post-production work on an eighteen-minute video documentary titled The Mobile Museum Program: Afghan Students Explore their History. In addition, in April we signed a contract with the Afghanistan Center at Kabul University (ACKU) for the production of two short illustrated books for young readers designed to highlight awareness of cultural heritage while acquainting them with the National Museum as the place where they can go to see and learn about their own history. The books will be published in Dari, Pashto, and English.

In parallel with the Mobile Museum Project, one of our main projects at the National Museum of Afghanistan (NMA) is the Hadda Sculptural Restoration Project (HSRP). The fifteen-hundred-year-old sculptures from Hadda in the NMA’s holdings are one of the most important collections of early Buddhist (Gandharan) art in the world. These priceless sculptures were systematically smashed by the Taliban in the months leading up to their destruction of the giant standing Buddhas at Bamiyan. At great personal risk, the NMA staff secretly collected and stored more than 7,600 fragments of these sculptures. In Late 2016, the OI team began its project to conserve, reassemble, and restore these rare examples of early Buddhist art.
TOP: Figure 4. Mobile Museum Project instructor Zakiya Rahimi giving an in-class program presentation about Afghan civilizational history and the National Museum at the Bibi Hawa Girls’ High School in Jalalabad, near the Khyber Pass in southeast Afghanistan.

BOTTOM: Figure 5. In an interview as part of the video documentary titled The Mobile Museum Program: Afghan Students Explore their History, a high school student from Bamiyan discusses what he learned from the in-class program at his school.
Our team consists of project head conservator Fabio Colombo and assistant conservator Elisa Pannunzio, with the participation of conservator Claudia Chemello, and professor Giuseppe Salemi from Padua University as a specialist in 3-D imaging and modelling. In tandem, OI Kabul field director Alejandro Gallego Lopez has been identifying the partially reassembled sculptures when possible from field numbers, museum records, and catalogs of the pre-war collections. Since its beginnings four years ago, the Hadda Sculptural Restoration Project has assessed, cleaned, and sorted more than 7,600 sculptural fragments and partially reassembled 186 of the sculptures that had been smashed by the Taliban in 2001. The original number of statues remains unclear, but they must have numbered at least 350 objects and probably significantly more.

In September 2019, the NMA’s museology section curator notified us that his department had in its archives 1,629 partially burnt museum registration cards of objects from the excavations at Hadda during the 1920s (fig. 6). These records had miraculously survived the damage to the museum during the Afghan civil war of 1989–1995. The surviving registration cards are an invaluable resource for our efforts to physically reconstruct and identify the thousands of sculptural fragments of the sculptures from Hadda that had been smashed by the Taliban in 2001.

Our team has assessed, cleaned, and sorted more than 7,600 sculptural fragments and partially reassembled 186 of the Hadda sculptures. More than eighty of these smashed sculptures have been reassembled to the point where we could match them to museum records. We have entered all this information into our NMA-OI inventory data base. This means that these objects, previously assumed...
to have been lost or looted, can now be identified as still surviving in the NMA’s collections, even if they are in a badly damaged condition.

Unfortunately, the Hadda project’s conservation work in Kabul was abruptly curtailed when the spread of the coronavirus pandemic forced us to evacuate our international team members from Kabul and suspend all plans for on-site conservation activities at the National Museum for the remainder of this year at least. The most effective way to use the time when Hadda project team members Fabio Colombo, Elisa Pannunzio, and Professor Salemi cannot do laboratory and 3-D imaging work in Kabul is by working remotely on the data we have accumulated so far. To accomplish these goals, we have shifted to “virtual” missions.

From April to the end of June 2020, our AHMP colleagues in Italy and Spain have been working remotely while linking with the Chicago team in weekly Zoom calls for progress updates and delineation of next steps. The virtual missions focus on five main goals: a) organization of the archived photos taken over the past four years to document the work of the project, b) implementation of the “Daminion” Digital Asset Management (DAM) system as a searchable database for Hadda project documentation images and videos, c) writing technical reports on conservation interventions and procedures that must be completed for full documentation of the work of the project, d) development of an emergency storage plan for the Hadda sculptural fragments in case of a breakdown in security conditions in Kabul, and e) development of a revised comprehensive conservation action plan for the remaining months of the grant.

Since the Hadda Project began in 2016, we have generated 18,144 still images and videos to document the sculptural fragments, conservation interventions, and procedures undertaken to date. To be useful, the complete set of images must be backed up for safety, labelled with keywords, organized, and then entered into Daminion, a cloud-based digital asset management (DAM) system, to enable searches and location of the necessary image data by conservators, art historians, archaeologists, and museum curators. The images were initially grouped into 636 folders organized by subject and date. We were able to eliminate duplicates and thereby reduce the number of images that will actually be included in the DAM system from 18,144 down to 4,400 digital images.
our “virtual missions,” the images are now being tagged with a set of keywords to facilitate searches as part of their incorporation into the Daminion image database. At the same time, Kabul field director Alejandro Gallego Lopez is matching registration numbers against scanned field records and published catalogs to identify the partially reassembled sculptures and locate photos of the objects in their complete form before they were smashed by the Taliban.

We are focusing our efforts on the partially reassembled sculptures, especially the eighty that we can match to the surviving paper registration records in the museum. Daminion allows us to group together all the related images and documentation for each of these partially reassembled sculptures: the entry in our museum inventory database, a scan of the surviving paper object record for the museum, and photos of the sculpture in its original condition when accessioned by the museum (fig. 7).

The COVID-19-related disruptions to our project work pale in comparison to the human cost of the pandemic. Taj Mali, the assistant field director of our cultural heritage preservation projects in Afghanistan, died at the age of sixty-five in a Kabul hospital on July 19, 2020, from the coronavirus, which has been raging across Afghanistan (fig. 8). With his language skills, embassy experience, and close connections with key Afghan government ministries and officials, Taj had been an invaluable member of our Kabul team. On numerous occasions we benefitted from his diplomatic skills, his fluency as a translator, and his ability to advocate for our programs and resolve administrative problems. In the all-too-short time that we were able to work with him, we all developed an enormous respect for Taj as a person and as a valued colleague. We are deeply saddened at his untimely death.

CENTRAL ASIA: C5 CULTURAL TRAINING PARTNERSHIP FOR ARTIFACT CONSERVATION (C5 CTPAC)

The C5 Cultural Training Partnership for Artifact Conservation (C5 CTPAC) grant is a three-year program of capacity building and advanced training for artifact conservators at the national museums of the five Central Asian republics (“C5”), Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. For millennia, Central Asia has been both a fascinating region in its own right and a bridge connecting the civilizations of the Middle East and East Asia. The national museums of these post-Soviet C5 republics are the most important resource for the preservation of Central Asian cultural heritage and public education for citizens. These institutions house the objects that document an incredibly rich shared history from the millennia when these lands formed part of vast regional civilizations and empires such those of the Scythian nomads, the Achaemenid Persian Empire, Alexander the Great, the Kushans, Parthians, Sasanians, Hepthalites (“White Huns”), Turks, Mongols, and Timurids, up through the Russian Empire and finally the Soviet Union. Because of this shared history, the single most effective way to help preserve the cultural heritage of Central Asia
is by training and capacity building at the national museums of all five republics.

Starting in 2018, the Oriental Institute has been conducting a series of three annual intensive two-week training workshops for sixteen conservators—eight from the national museums of the C5 post-Soviet Central Asian republics and eight conservators from other museums in Uzbekistan. The workshops take place at the State Museum for the History of Uzbekistan (SMHU) in Tashkent. We have been extremely fortunate to develop this project in partnership with the SMHU director, Ms. Jannat Ismailova, and deputy director Dr. Otabek Aripjanov.

C5 CTPAC is funded with the support of the US State Department’s Bureau of Central and South Asian Affairs and is carried out through the US Embassy in Tashkent Uzbekistan. We especially thank Ambassador Pamela Spratlen and the Public Affairs Section (PAS) staff, notably John Brown, Joanne Kramb, Kirsten Michener, Muhlisa Rasulova, and Oxana Wright, who have all been instrumental in getting our project up and running over the past two years.

The CTPAC training programs are taught by our workshop coordinator Fabio Colombo (who also serves as the head conservator for our Hadda Sculptural Restoration Project in Afghanistan—see above). Each year we also have the participation of conservation specialists from leading international centers. The topics covered in each workshop are tailored to provide training in internationally recognized standards and practices of treatment for the main classes of artifact types and constituent materials that form the majority of the holdings in the national museums of the C5 countries.

This is the first systematic program to bring together heritage preservation specialists from the national museums of all the C5 countries for training. Our goal is to develop a shared set of standardized best practices all across Central Asia for conservation of museum objects. This program is intended as the first step toward linking the national museums of these five countries in a formalized framework for institutional cooperation for heritage management. Two key elements in the structure of the C5 CTPAC workshops are:

Figure 9. Participants, organizers, and instructors in the second annual training workshop for conservators from the national museums of the five Central Asian Republics—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The workshop was held at the State Museum for the History of Uzbekistan in Tashkent as part of the Oriental Institute’s C5 CTPAC grant from the US Department of State and the US Embassy Tashkent in September 2019.
a) that the same participants attend all three workshops, and b) that we make every effort to focus the teaching on priorities articulated by the workshop participants as best fitting their conservation needs.

The first annual workshop was taught in September 2018. In year one, we were able to get the participation of conservators from the national museums of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan for the first workshop; only Turkmenistan did not send any participants. In year two, Turkmenistan sent conservators as well, and our training workshop brought together nineteen participants representing all five Central Asian republics (fig. 9). The workshop took place at the State Museum of the History of Uzbekistan (SMHU) in Tashkent from September 10 to 21, 2019. The workshop readings were translated into Russian as the lingua franca shared by all participants. Simultaneous English-to-Russian translation was provided for all class sessions. The opening ceremony of the workshop was attended by Laura Tedesco from the US Department of State, and by Ms. Joanne Kramb, representing the US Embassy Tashkent.

The first week, taught by workshop coordinator Fabio Colombo, continued the training begun in 2018 on clay sculpture conservation and the conservation of painted murals (fig. 10). Fabio focused on teaching best practices for pre-treatment evaluation, documentation, and cleaning procedures. He also introduced the participants to the use of a
handheld digital microscope linked to a laptop screen as a valuable tool for conservation assessment (fig. 11). The curriculum emphasized the integration of conservation theory with hands-on practical training using actual archaeological objects from the collections of the State Museum (fig. 12).

In the evaluation forms filled out after workshop one (2018), the participants indicated that they wanted to have metals conservation be a key focus for workshop two. We were fortunate that Ms. Susanne Gaensicke, head of the Conservation Department at the Getty Museum in Los Angeles, was willing to teach metals conservation for the entire second week of the workshop. Over six days of intensive theoretical and hands-on practice sessions, Susanne introduced the fundamentals of metal conservation (fig. 13). The workshop course materials were translated into Russian to complement the classroom lectures covering the most common metals found in museum objects: gold, silver, copper and its alloys, iron, and tin. Susanne’s lectures included a brief overview of the nature of metals, metal technology and innovation over time, main factors of deterioration, and conservation approaches, as well as a brief history of metal conservation. In addition, the presentations introduced the topics of technical analysis of metal objects and issues related to preventive conservation and storage. Altogether Susanne presented eight PowerPoint lectures, with additional videos on selected manufacturing techniques and of conservation treatments.

To better understand the value of the workshop curriculum from the participants’ perspective, at the conclusion of the workshop we asked them to fill out detailed evaluation forms. The participants were strongly positive in their assessments of the quality of both the content of the workshop and the quality of the instructors. They especially appreciated the focus on metals conservation as a useful and necessary part of their training. Workshop coordinator Fabio Colombo is using this data to determine potential topical foci for the upcoming workshop three.

One of the key benefits of the workshop has been the development of professional connections and actual friendships among the conservators from the five Central Asian Republics. On their own initiative the nineteen participant conservators set up a Russian language chatroom to stay in touch with one another and exchange information. We view this as extremely important and encouraging, since it establishes personal/professional ties that will make it much easier to build larger scale institutional ties to link the five national museums. Development of these links is one of the longer-term goals of the C5 CTPAC initiative.

**CONCLUSIONS**

Overall, our four ongoing projects in Afghanistan and Central Asia span a range of approaches to preserving cultural heritage. In countries emerging from conflict, such as Afghanistan, much of our work has focused on documenting and restoring damage that has already been done to material cultural heritage. By contrast, in Central Asia the main risks to cultural heritage stem from population growth, urban expansion, and rapid economic growth. In these five post-Soviet republics, our initiatives are proactive, aimed at building local institutions and training professionals to preserve irreplaceable cultural heritage before it is damaged or destroyed by peacetime development. We have kept these programs alive during the COVID-19 pandemic; our plan is to continue and expand this work as soon as public health conditions allow us to return to these countries.