

Archaeological Research and Conservation Program India/Pakistan 2013-2014

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Second Midterm Report September 2013 to October 2014

The Center for South Asia, UW Madison was awarded a grant by the US Department of State to lead a program on Archaeological Research and Conservation in India and Pakistan (ARCPiP) beginning September 2012 through September 2014. A no-cost extension for completing the program was applied for and granted that carries the program through Jan 31, 2015.

The primary coordinator for the project is Dr. Jonathan Mark Kenoyer, Professor of Anthropology and Director for the Center for South Asia at the University of Wisconsin, Madison (UWM), USA. He has been coordinating this program with Dr. K. Krishnan, Head of the Department of Archaeology and Ancient History, Maharaja Sayajirao University (MSU), Baroda, Vadodara, Gujarat, India, and Dr. Abdul Samad, Chair of the Department of Archaeology, Hazara University (HU), Khyber Pakhtunkhwa, Pakistan.

This report covers the second year of grant with a summary of the major developments and accomplishments. Due to the fact that visas were not granted for Pakistani and Indian scholars to travel to each other's countries, two conferences were organized so that the participants would be able to meet and interact as outlined in the original grant proposal. The first international conference was held in Muscat, Oman in April 2014 and a second conference was held in October 2014 in Madison Wisconsin. Detailed reports of excavation and conservation projects as well as the conferences supported by the grant are included in the appendices.

Project Summary: September 2013 to October 2014

The goal of the project was to enable archaeologists and conservation specialists at from all three institutions to engage in collaborative research, including excavation and artifact analysis, museum development and outreach, and conservation of structural remains and artifacts. During the second year, two US scholars travelled to Pakistan, and three US Scholars traveled to India. Due to problems with obtaining visas for travel between India and Pakistan, the scholars from these countries were able to interact through email and social media and also at two major international conferences in Muscat, Oman and Madison, WI, USA. A total of four Pakistani and four Indian scholars as well as two US and several other international scholars participated in the



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conference in Muscat, Oman (Appendix 1). A total of nine Pakistani and six Indian scholars as well as seven US and one international scholar participated in the conference in Madison, WI (Appendix 2).

Regardless of the visa issues, both the Indian and the Pakistani components of the project have made significant progress in terms of excavation of sites, and documentation and presentation of the project results on newly developed department websites, and sharing data and research with each other over the internet. They have also been able to publish articles in their regional journals so that the work done in each other's departments is widely disseminated to scholars in each other's countries and internationally.

During the second year, the main sites where survey, excavation and conservation were undertaken in Pakistan are in the Tanawal District, Hazara (Appendix 3) and the continued analysis and documentation of artifacts from the site of Bhamala Stupa, which is part of the World Heritage Monuments of Taxila. Conservation and artifact documentation has been undertaken at the famous site of Harappa, Punjab, and salvage excavations undertaken at the endangered site of Lakhanjo-daro, Sukkur, Sindh. In India the project focused on the site of Shikarpur, Kutch, Gujarat (Appendix 4), which is an important coastal trading site of the Harappan period as well as a new site, Navinal, on the coast of Kutch that also dates to the Harappan period. Dr. Brad Chase from Albion College Michigan participated in the work at Navinal and also carried out a small survey to collect environmental samples for isotopic analysis to help reconstruct ancient land use patterns (Appendix 5). All of these projects encouraged the participation of women faculty, staff, and students in the excavations and in the analysis, conservation, and display of the newly discovered objects.

During the month of September 2013, Dr. Kenoyer began preparing for his trip to Pakistan and as soon as the visa was issued he finalized his travel plans and arrived in Islamabad on Oct. 22, 2013. He stayed in Pakistan until Dec. 14, 2014 when he proceeded to Muscat to undertake research there and begin organizing a conference for the ARCPIP participants to come to Muscat.

While in Pakistan, Dr. Kenoyer met with Dr. Abdul Samad, Department of Archaeology, Hazara University, Mansehra to discuss plans for the continuing surveys and excavations that the department was planning for the upcoming year. He also took a short trip to Mansehra to meet with staff and students and give some lecture demonstrations relating to experimental archaeology and the analysis of the materials from the recent excavations at Bhamala Stupa and surveys in the Tanawal District.

While in Islamabad, Dr. Kenoyer gave lectures and established an experimental archaeology laboratory at the Taxila Institute for Asian Civilizations (TIAC), Quaid-i-Azam University (Appendix 6). He was able to teach a large number of students how to undertake original research projects using experimental approaches to pottery making, stone carving, copper smelting and steatite bead making. As part of these experiments, he was able to bring in special master craftsmen from different parts of Pakistan to help train



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the students and develop new displays for the department museum. He also gave lectures on the Indus Civilization at NCA Rawalpindi and at Hazara University and took some of the craftsmen to both institutions to show the students the types of experimental craft studies that he has been involved in.

Dr. Kenoyer also travelled to Shah Abdul Latif University, Khairpur to give a lecture and to meet with Dr. Qasid Mallah and provide support for some of the salvage archaeology excavations at the important site of Lakhanjodaro, located in Sukkur City. While in Khairpur he also brought Abdul Momin to demonstrate steatite bead making so that the students at this university could experience experimental archaeology first hand.

Dr. Kenoyer also visited the site of Harappa where his local staff are involved in ongoing conservation of the site and artifacts, and in museum development. A large area of the site that was formerly protected but now owned by the government has now been purchased. The local museum staff have been working on conservation of the mounds and ancient structures at Harappa and the staff trained by Dr. Kenoyer are working with them to guide them in the proper techniques and documentation of the conservation processes. The local museum staff are also preparing to build a boundary wall around the entire site and the staff that Dr. Kenoyer has trained are helping with the documentation and conservation of artifacts that have been discovered during the process of site conservation and boundary wall construction. This is an ongoing project that will continue through 2016. The funding for the boundary wall has been provided by the Pakistan Government, but there are no funds for hiring specialists to document the discoveries. ARCPIP has been involved in supporting this aspect of continued work at the site of Harappa. Dr. Kenoyer made short visit to the site to oversee the documentation and collect copies of photographs and records that will be updated in the master database discussed above.

In March 2014, Dr. Katie Lindstrom, Honorary Fellow at the Department of Anthropology, U W Madison, undertook a one month collaborative project with the Dr. K. Krishnan and Dr. P. Ajithprasad at M S University Baroda to undertake ceramic studies, participate in excavations and extend collaborations with Indian archaeologists as part of the ARCPIP Program (Appendix 7). Later in March she traveled to Pakistan where she collaborated with Dr. Abdul Samad and Dr. Muhammad Ashraf Khan to undertake training workshops with students and staff from Hazara University and Quaid-i-Azam University (Appendix 8). The workshop was hosted at the office of the American Institute of Pakistan Studies in Islamabad. The first two days were devoted to an interactive workshop on building archaeology databases using easily available computer software. On the third day, a half-day workshop was carried out to introduce common methods for recording and studying pottery from archaeological excavations. Nineteen individuals attended the workshop series, including 6 women: 11 students (BA, MA and MPhil) and 4 instructors from the Department of Archaeology at Hazara University, 3 students from the Taxila Institute of Asian Civilizations at Quaid-i-Azam University, and one museum curator from the Chitral Museum. During her visit she also gave a lecture at the Taxila Institute for Asian Civilizations, Quaid-i-Azam



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University and she also traveled to Lahore and Harappa to meet with Pakistani archaeologists and museum specialists as part of the ARCPIP Program. Her stay in Pakistan was facilitated by the American Institute of Pakistan Studies office and staff in Islamabad and Lahore.

Websites, Databases and Gazetteer Project

During the first year of the project, each department established a newly designed website that was used to highlight the achievements of the project and to showcase the publications and reports of the projects. During the course of the year, these websites have been updated and continue to evolve as new work is completed. The ARCPIP has a separate website hosted at the University of Wisconsin, Madison where summaries of the project are available along with links to the individual websites of each department.

Scholars in both departments have been sharing their data templates and recording forms to help standardize the ways in which survey and excavation data are collected and recorded. This has helped to develop more transparent methods of communicating results of the research being done in each university. They have also implemented the use of similar Filemaker Pro databases in order to efficiently share data and research analysis. Updated maps of sites and surveys have been prepared and shared between the institutions and made available on the websites.

Dr. Randall Law, at the University of Wisconsin, Madison has been coordinating the data from both groups of scholars and combining these data into a master database and gazetteer for the archaeology of South Asia. Two complementary repositories of archaeological site data were created using widely available computer software programs. The program FileMaker was used to build an extensive and detailed informational database of archaeological sites in Pakistan and India. In tandem with this, an interactive gazetteer of the same archaeological sites was created in the navigable global mapping program Google Earth. To date, nearly 3000 archaeological sites across South Asia have been incorporated into the database and gazetteer (Appendix 9).

As noted in the first report, this is the first collaborative archaeological and conservation project involving Indian, Pakistani, and US scholars and students. All of the scholars have been very happy with the results of these collaborations and they have already stimulated numerous offshoots as students from these institutions spread out into new universities and develop new collaborative projects. For example, Dr. Rajesh S.V., the University of Kerala who was a student at MS University Baroda, has established a new Department of Archaeology in the University of Kerala, and begun the survey and excavation of a new site in collaboration with several other regional and international collaborators.

Thanks to the connectivity through the Internet, it has been possible to sustain direct interaction regardless of brief fluctuations in accessibility due to travel restrictions. This project has brought together multiple lines of archaeological research



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on the languages, cultures, religions and socio-economic developments of ancient South Asia.

Artifact Analysis

Many of the artifacts and samples of materials found in archaeological excavations require special types of analyses that can only be carried out in specialized archaeological laboratories. Some of the artifact analysis has been carried out in laboratories in Pakistan and India at the respective universities of the collaborating projects. The final reports on these studies are under preparation and will be incorporated into final excavation reports. The work that is being undertaken in the USA under the direction of Dr. Kenoyer and Dr. Law is also a long-term process that involves multiple laboratories. The following laboratory analysis has been undertaken and the results are still being processed for interpretation. The full discussion of these samples is being prepared in conjunction with publications and reports of the different sites.

Scanning Electron Microscopy Studies relating to the carving of seals, the drilling of stone beads and carved intaglio beads, as well as ancient textile fragments from sites in India, Pakistan and Oman. Carried out by Dr. Kenoyer at the Animal Sciences Microscopy Laboratory, and Geological Sciences Laboratories, University of Wisconsin, Madison. These studies are helping to define bead-drilling techniques that reflect different chronological developments in technology in the Indus region as well as in the nearby region of Oman that was involved with the Indus through trade. Seal carving techniques have also been studied to compare styles of Indus seal carving from different sites in India and Pakistan as well as seal carving in Oman. The study of textiles is also something that has recently produced important new information on the use of silk as well as jute, cotton and wool during the Indus period.

X-ray Diffraction Analysis of raw materials at the S. W. Bailey X-ray Diffraction Laboratory, Department of Geoscience, U W Madison on both a Scintag PADV X-ray diffractometer and a Rigaku Rapid II X-ray diffraction system. The analysis of steatite and various types of rocks used to make beads was carried out by Dr. Randall Law to better understand the variation in materials being used at sites in the Indus Valley regions of Pakistan and India. Samples were collected by colleagues in Pakistan and India and tiny fragments of raw materials were submitted for analysis.

Elemental Analysis using Laser Ablation Inductively Coupled Mass Spectrometry for the characterization of glass and agate. This analysis is being carried out under the direction of Dr. Laure Dussubieux of the Integrative Research Department at the Field Museum, Chicago. So far the analysis has been carried out on glass and agate samples. The glass bead samples are from the site of Shorkot in Pakistan as well as some collections of workshop debris from sites in Pakistan and Afghanistan. In addition a large sample of geological samples of carnelian and agate from India and Pakistan as well as



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other regions that might have traded with the Indus have been studied. These geological samples will be compared with analysis of archaeological samples of stone beads from sites in the Indus Valley region as well as Oman and other regions that might have had long distance trade contacts with the Indus, including Egypt, Iran, Central Asia and East Asia. This study will help to establish a very clear understanding of the long distance trade networks that were established by the Indus merchants during the third millennium BC.

Copper Compositional Analysis of copper artifacts from the site of Harappa has been undertaken at the UW Soils Lab, Madison, WI. The artifacts derive from excavations at the site of Harappa carried out by Dr. Kenoyer as part of the long-term research at this site. These samples are being studied by Brett Hoffman who is a Ph D student at UW Madison. The analysis will be helpful in comparing the samples from Harappa with sites in India and other sites in Pakistan and areas that were in trade contact with the Indus region.

Lead Isotope Analysis of copper samples from Harappa has been carried out under the direction of Dr. John Krigbaum at the University of Florida. The analysis of lead in copper will help to determine the source of the ores used by metal workers at the site of Harappa. These samples will be compared with other studies of lead isotopes in copper artifacts from sites in India, Pakistan and Oman to better understand the trade and distribution networks for both copper ore and finished objects.

Publication and Dissemination of Results

Scholars who have participated in the ARCIPIP project have prepared numerous articles for publication in peer reviewed journals in Pakistan, India and internationally. The full list of these publications will be provided in the final report as many are still under review or in press. The papers presented at the conferences in Muscat Oman and Madison Wisconsin are in preparation and will be published online through the ARCIPIP website as soon as they are reviewed and edited. This website will allow immediate and widespread dissemination of the results of the many different projects that have been supported by the grant.

Evaluation and Assessment

We are in the process of developing the midterm survey for 2014 that will be sent to all of the participants of the conferences, excavations and survey projects. As soon as these surveys have been approved by the UW Madison Internal Review Board they will be available online. We are also preparing a final survey that will be compared with the baseline survey and the midterm survey.

As stated in the original proposal we plan to have observation and evaluation undertaken using external experts with expertise in the archaeology of Pakistan and India. This will be done on a volunteer basis by three sets of scholars, in the US, India and



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Pakistan. We are in the process of identifying scholars who will be sent electronic documents summarizing the results of midterm and final surveys. These scholars will submit their reviews electronically and anonymously to the Center for South Asia administrator.

In summary, I feel that we have made significant progress in furthering the overall goals of the project which has been designed to enhance people to people contact between scholars in India and Pakistan as well as the USA. I have been monitoring the Facebook posts of people who have been a part of this project and while all do not use social media, it is clear that there are many new networks being developed that are a spinoff from this program.

Sincerely,



Jonathan Mark Kenoyer
Professor



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