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# Old bones, digital narratives: Investigating the Peter B. Cornwall Collection in the Phoebe A. Hearst Museum

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## Abstract

*A joint team of archaeologists from the University of California, Berkeley and Sonoma State University are examining a collection of artifacts and skeletal material excavated by Peter B. Cornwall in Bahrain and eastern Saudi Arabia in the 1940s and accessioned in the Phoebe A. Hearst Museum. Motivated by modern innovations in the examination of skeletal materials and a greater awareness of broader Near Eastern history, we are considering this collection from a contemporary bioarchaeological perspective and in terms of the personal history of Peter B. Cornwall. In this article we discuss our progress, summarizing our analytical work on the objects and human remains, as well as our plans to document our research and the collections using a number of on-line platforms.*

## Introduction

University museums host collections that not only provide insights into the history of archaeological inquiry, but also are of increasing interest to current research questions. Reexamination of these legacy collections within the context of a discipline that has changed tremendously within the last 70 years allows new modes of analysis to be performed on the artifacts themselves and brings forth a greater perspective of their regional importance in light of subsequent excavations. Additionally, the collections can be enhanced with forms of documentation that were not available at the time of accession. Digital photography of objects in the collections can aid the sharing of information between interested researchers across the globe. With the rise of social media, the connection between research performed in a museum and an interested public becomes immediate and publication becomes instantaneous. Our research on the Peter B. Cornwall collection in the Phoebe A. Hearst museum at the University of California, Berkeley incorporates a research design dedicated to the scientific reassessment of the collection, an inquiry into the life of the relatively little-known deaf archaeologist who was an early explorer of ancient Dilmun, the area known today as the western side of the Arabian/Persian Gulf, and the remediation of these materials online. With this study we hope to show the enormous resources available at university museums and the value of continued engagement with legacy collections.

Alexis Boutin, the project's osteologist, identified the collection within the Hearst Museum in the fall of 2008, finding entries in the card catalog listing materials from 'Arabia' and 'Bahrain Island'. A quick glance at these cards, and then at the skeletons and artifacts themselves, indicated that a substantial collection was present, certainly presenting work for more than just one person's expertise. The initial questions generated by this preview were vast: Was this collection worth scientific examination? Who was Peter B. Cornwall? Were there any stakeholders involved who would be interested in these materials?

Given the nature of these questions, it became necessary to create a collaborative, interdisciplinary team of scholars with unique talents and complementary research interests. Alexis Boutin directs the analysis of human remains while Benjamin Porter, a Hearst curator of Near Eastern archaeology, leads a team to examine the collection's stone, bone, ceramic, glass, and ivory artifacts. Joining them are Amber Zambelli, Alan Farahani, Sheel Jagani, and Bianca Brenes, undergraduate and graduate students at Sonoma State University and the University of California, Berkeley. Colleen Morgan is in charge of digital documentation and dissemination. The project also draws on the talents of Kathryn Killackey, a scientific illustrator, Jennifer Piro, a zooarchaeologist, and Athna May Porter, a

professional genealogist. Despite the differences in academic rank, the staff of the Dilmun Bioarchaeology Project (DBP hereafter) organizes itself as an egalitarian research group who encourages and appreciates each member's unique contributions to the project's collective goals.

### History of the collection

With the personnel assembled, the next step was a preliminary research assessment of the Cornwall collection. The first question was to determine how the materials had been collected and eventually deposited at the Hearst. The museum's accession file and published academic literature were key resources in this regard. Through archived correspondence, we learned that beginning in 1940, Peter B. Cornwall, a graduate student at Harvard University, sought institutional affiliation and field research funding from the Hearst Museum to conduct excavations and surveys in what was broadly called 'Arabia' at that time. Although Hearst officials Alfred Kroeber, Theodore McCown, and Edward Gifford granted Cornwall institutional affiliation and professional mentorship, they did not offer him funding beyond the cost of shipping materials to California. Despite some delays due to World War II-related events, Cornwall conducted his field research in late 1940 and early 1941. After recovering the skeletal remains, Cornwall coated them with shellac while still in the field. They were then shipped to his home in Marin County, where he apparently carried out some restoration of fragmentary bones and artifacts. Upon returning to the United States, Cornwall studied many of these materials, publishing portions of the data in his 1944 PhD dissertation, *The history of Bahrein Island before Cyrus* and other scholarly and public journal articles (CORNWALL 1943, 1944, 1946a, 1946b, 1952).

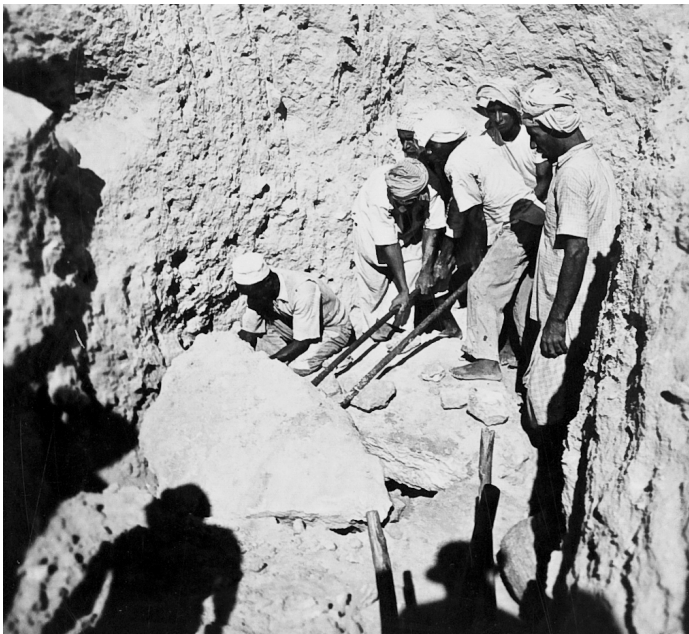


Fig. 1 - Peter B. Cornwall's research team, lifting a limestone slab during excavations in Bahrain © Phoebe A. Hearst Museum of Anthropology

According to the museum's doorbook and accession sheet, the entire collection was deposited in the Hearst Museum in December 1945, under the accession number 831. An inventory of its contents was completed in September 1949, according to a letter from the Hearst to Cornwall.<sup>1</sup> Some correspondence between Gifford and Cornwall suggest that Cornwall was to help unpack and inventory the materials, but this did not happen despite repeated requests. Correspondence with Cornwall about the collection ends in 1952. A trial catalogue sheet dating to September 1965 indicates that Grover Krantz, who was then a physical anthropologist employed at the Hearst, catalogued the skeletal materials. At the time of this writing, there is no record that a similar act was carried out on the objects, although we have reason to suspect that there was. Given museum protocol during the 1960s, it is likely that the catalog number was written on each object and bone at or around the same time as Krantz's work. The materials were housed in their current location after the facilities were built in 1959. Their drawers provide some information about their management by the Hearst Museum

<sup>1</sup> Gifford, E. W., *Letter to Cornwall*, September 28, 1949.

staff. For example, a sequential number was written on each of the drawers; at some point after this, a fresh label was stapled to each drawer. Collections managers conduct spot checks periodically to comply with pest management and security protocols. The skeletal materials were inventoried during the museum's efforts to be NAGPRA compliant during the 1980s and 1990s, although funds were not available for their osteological analysis.

The DBP's second charge was to study available documentation to define the collection's spatial and geographic parameters. According to his notes and correspondence, Cornwall excavated and surveyed in regions that once comprised the ancient polity of Dilmun, but are today the modern Kingdom of Bahrain and the eastern coast of Saudi Arabia. He obtained permissions both from local governing authorities and Standard Oil, who had oil exploration rights to some of these territories.<sup>2</sup> According to his descriptions, Cornwall surveyed several prehistoric settlements throughout central and eastern Saudi Arabia. In Bahrain, Cornwall excavated a Roman bath and thirty-five tumuli around the island. From the latter, he recovered a number of skeletons and associated objects. Cornwall also mentions that he recorded geological and environmental data during his travels. He took physical measurements on local populations as well, as he held an interest in anthropometry, the measurement of living people for the study of human variation (CORNWALL 1943, 1944, 1946b).

The group's third question about the assemblage was biographical in nature: Who was Peter Cornwall? In addition to the accession file, public documents have helped piece together his biography. Cornwall was a San Francisco Bay Area native born in 1913 to a family with deep roots and high status in northern California. Peter Cornwall attended Phillips Academy in Andover, Massachusetts and went on to study at Stanford University, the University of Toronto, and Oxford University, finally earning his bachelor of arts in 1939. At some point in his life, Cornwall lost his hearing and could only communicate through writing, and there is some evidence that this was the cause of Harvard's unwillingness to fund Cornwall's expedition.<sup>3</sup> According to his vita, he showed an interest in Near Eastern and Mediterranean archaeology and history throughout his education, participating in excavation projects in Greece, Egypt, and Malta during the 1930s.<sup>4</sup> After earning his PhD at Harvard University in 1944, Cornwall was based in the San Francisco area, traveling abroad frequently. In 1952, he reports that he is moving his residence to Rome, near the American Academy.<sup>5</sup> According to cemetery records, Cornwall died in Rome in 1972 at age of 59. His body was shipped back to the family cemetery near Palo Alto, CA. At the moment, nothing is known of Cornwall's activities in the last two decades of his life. Records suggest he never had children and our attempts to identify Cornwall's living relatives have thus far been unsuccessful.

### **Collections work**

Finally, there was the collection itself to consider. The DBP's preliminary research assessment of the objects determined that they are well preserved, in part due to the Hearst Museum's excellent management strategies. Cornwall appears to have performed object restoration when possible. Other specimens are fragmentary, as is common for excavated materials. The collection contains objects made from several materials, including metal, bone, ivory, pearl, shell, and alabaster, although stone and ceramic are the dominant material types. Representative forms include vessels, jewelry, and tools. We are collecting non-destructive descriptive data (e.g. dimensions, color, condition). Many of these objects have been photographed and drawn for an upcoming publication. Comparing these objects to examples already published in the secondary literature has helped provide relative dates for

<sup>2</sup> Cornwall, P.B., *Letters to Theodore McCown* dating November 28, 1940, January 7, 1941, February 8, 1941, and May 15, 1941.

<sup>3</sup> Coon, C.S., *Letter to Theodore McCown*, March 20, 1940.

<sup>4</sup> Cornwall, P.B., *Letter to Theodore McCown*, March 26, 1940.

<sup>5</sup> Cornwall, P.B., *Letter to Theodore McCown*, March 21, 1952.



Fig. 2 - Artifacts excavated by Cornwall in Bahrain, which are currently housed at the Hearst Museum © Phoebe A. Hearst Museum of Anthropology

the artifacts. So far, the team has determined that several different time periods are represented, the oldest being Paleolithic or Neolithic, with the youngest material dating to the tenth century CE. The objects excavated from tumuli provide relative dates from the late third millennium BCE to the end of the first millennium CE.

The preliminary assessment of the human remains revealed approximately 24 burial features: one jar burial, two features in a small cemetery, and 21 tumuli. The remains of at least 32 individuals are present. Twenty of the burial features appear to have been single interments, with three double burials, and two multiple burials. Inventory data have been used to estimate the completeness of the 32

skeletons. Overall, 34.4% of the skeletons were mostly complete, 12.5% were fairly complete, and 53.1% were fragmentary. Although the proportion of mostly complete skeletons may seem low, we observed further that the majority of this group was very well preserved, with major bones and diagnostic features intact. Preliminary estimates of sex suggest ten possible/probable males and six possible/probable females. An age assessment of twenty-eight individuals revealed 20 adults, three adolescents, two children, and three infants. Several pathologies are exhibited at significant frequencies, including ante mortem tooth loss, osteoarthritis, and Schmorl's nodes resulting from compression of the vertebral column. A handful of isolated pathological conditions also require further study, which include an apparent healed depressed fracture of the cranium, a possible traumatic injury to the humerus, and a congenital growth defect.

### Documentation and dissemination

One of the DBP's main goals is to increase the transparency of the archaeological process. To be successful, therefore, the project has organized a documentation and dissemination team that uses different technologies to record our research. Documentation takes several forms, from written to digital, from notebooks to databases and video. During the research assessment, the team piloted several projects using inexpensive or free resources. Digital photographs of all analyzed objects and some skeletal materials were taken and archived. Free, online digital software including Google Docs and Picasa allowed team members to share their work and communicate between research groups.<sup>6</sup> Video documentation was taken of the objects group 'at work' and was edited into a short video 'webisode' that will be made available for a public audience.

Also, a project website with a blog was established at [bbproject.wordpress.com](http://bbproject.wordpress.com). So far, posts to the blog have included profiles of team members, progress reports on skeletal analysis, and abstracts submitted to scholarly conferences. Through this blog we provide updates on the ongoing progress in

<sup>6</sup> Permission to photograph and use these images for research purposes was granted by the Hearst Museum.

our research at the museum and our preliminary publications – including the abstract that we submitted for the 2009 UMAC International Conference. We have also drafted an ethics statement regarding the display and remediation of human remains to guide us through our research process and to clarify our intentions to public audiences. We have shared this information in hopes of soliciting feedback from interested readers. In what can be seen as a success of this practice of sharing research outcomes, the ethics statement has been used in archaeological ethics classes in universities outside our home institutions. Although it is a work-in-progress, it outlines our intentions and we hope it will provide a model for future practice.

### Upcoming activities

We want to make our research a public enterprise, visible to possible stakeholders as well as to other researchers with similar interests. To this end, using the object data we have captured digitally, we have begun a series of online outreach projects that show our evolving research in a variety of venues. The central hub for this outreach is our aforementioned blog, which hosts links, images, and commentary related to our project. We plan to seek permission to host a selection of images taken at the museum of artifacts and of the research team working on artifacts on Flickr and linked to the blog for review. These digital images are standard archival shots, catalogued with their metadata and enhanced with commentary from the research team.

Hosting archaeological images on a social networking site like Flickr would allow us to tag the photographs and to annotate certain aspects of the image that would not be obvious to the non-specialist. Placing the images in the public's path also allows for commentary and questions – a strategy that has been used with great effect by the Library of Congress<sup>7</sup> and other institutions that use Flickr for outreach (SPRINGER ET AL. 2008). Additionally, we are documenting our research in the museum with digital video and have uploaded a short introduction of the project to Youtube. Video recording is a time-consuming yet effective way to communicate archaeological ideas to the public, and the 2–3 minute format popularized on Youtube is concise and easy to manage. Combined, these online resources will provide access to the collection, our research methods, artifacts and to the project team.

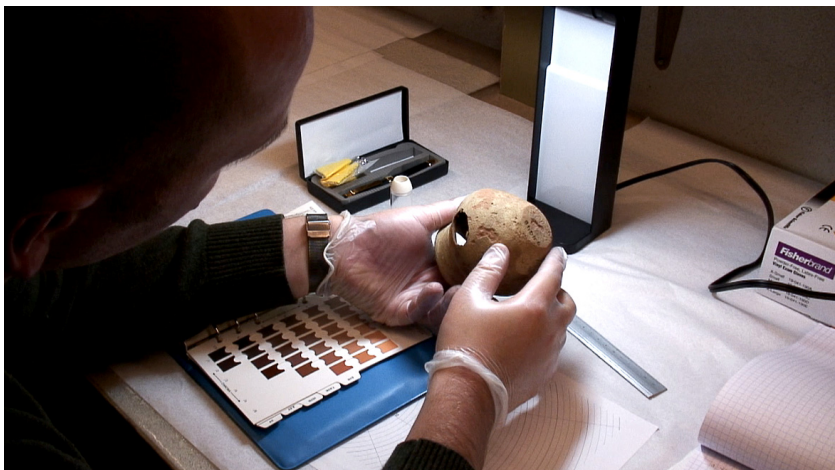


Fig. 3 - Dr Benjamin Porter of the DBP research team, analyzing artifacts in the Hearst Museum – Photo: Colleen Morgan, with permission from the Hearst Museum

The DBP also has an interest in interpretive accessibility. Three skulls from the Cornwall collection are prime candidates for facial reconstruction, based on their excellent preservation. These include a young adult male, a possibly male adult, and a young adolescent. Facial reconstruction of selected well-preserved skulls from the Bahraini tumuli will “flesh out” our explorations of these

embodied persons. Each reconstructed face's final appearance will be informed reflexively by

<sup>7</sup> See [www.flickr.com/photos/library\\_of\\_congress/](http://www.flickr.com/photos/library_of_congress/) (accessed December 13, 2009).

historical and iconographic data from its contemporary society (e.g., hairstyle, costume) and lifestyle information from the individual himself (e.g., age at death, pathologies, markers of occupational stress) (KUSTÁR 1999; PRAG & NEAVE 1997; WILKINSON & NEAVE 2003). Facial reconstruction is a particularly effective tool for outreach to public audiences. By “putting a face” on the ancient people of Dilmun in a way that is much more vivid and tangible to the island’s modern residents than a skull or stylized drawings, such facial reconstructions can facilitate indigenous peoples’ pride in their physical identity and cultural heritage (ROSE 2000).

The completeness and preservation of many skeletons in the Cornwall collection make them well-suited to interpretation by means of fictive osteobiographical narratives. This style of writing permits humanistic, experiential evaluations of skeletal data that are contextualized with all available archaeological, textual, and iconographic information. Consistent with our aim to disseminate our research findings widely and in an accessible fashion, fictive narratives can be more comprehensible and interesting to the public than traditional anthropological reports. They are also written in a way that makes transparent the contingency and collaboration that are inherent to the production of archaeological knowledge.

We plan to disseminate our findings to various interested publics through several channels. We will start updating our blog regularly with status updates on object and skeletal analysis, as well as photographs and webisodes of the teams at work. At later stages of the project, we envision incorporating the osteobiographies described above, as well as a database of objects and skeletal remains. Translation of parts of the blog into Arabic, so that it is accessible to Middle Eastern audiences, is another goal of the project. Aspects of the DBP’s research findings will be published in peer-reviewed journals and a forthcoming final report.

## Conclusion

Peter Cornwall doubtless had the best of scholarly intentions when he excavated skeletons and collected objects from Bahrain and eastern Saudi Arabia. Many of these intentions were fulfilled by his insightful analyses and publications. Yet the full research potential of many of the objects and all of the human skeletons remained untapped as they sat, well cared for but unanalyzed, in the Hearst Museum’s collections for the past half-century. Through a fortunate coincidence of factors, the DBP has coalesced, bringing with it our interests, resources, and abilities, to complete the process begun by Cornwall. We are fortunate to have university museums such as the Hearst – important repositories of knowledge – available to us for research and interpretation.

## Acknowledgements

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