

When Provenience Is Lost: Achievements and Challenges in Preserving the Historical St. John's, Belize, Skeletal Collection

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ABSTRACT

In small developing countries like Belize, lack of funding for archaeological research and post excavation curation remains one of our greatest challenges to preserving our tangible cultural heritage. The state of curation of human remains and artefact collections at St. John's College in Belize City is a perfect example of what can go wrong in the absence of a properly funded and managed curation program both at the national and the institutional level. This article highlights the rediscovery of a historically significant group of over 70 human remains in the biological collection of Friar Deickman, which had been forgotten in an attic after his death in 2003. We outline the process of, and accomplishments in improving the curation conditions of these individuals while uncovering their importance to Belizean history in the eighteenth through twentieth centuries. Preliminary analysis reveals life histories of slavery and indentured servitude of individuals of African, Maya, European, and possible mixed African and European descent. We emphasize the importance of ethical responsibility in properly curating excavated human remains, and the challenges researchers face when poor curation results in lost provenience. We offer suggestions for scientific analysis in recovering information lost as a result of poor excavation or curation methods.

En pequeños países en desarrollo como Belice, el financiamiento de la investigación arqueológica y la conservación posterior a la excavación sigue siendo uno de los mayores desafíos para preservar el patrimonio cultural. El estado de conservación de restos humanos y colecciones de artefactos en St. John's College, en la Ciudad de Belice, es un ejemplo perfecto de lo que puede suceder cuando no se establece un programa de curaduría administrado y financiado adecuadamente a nivel nacional e institucional. Este documento destaca el redescubrimiento de un grupo históricamente significativo de restos humanos que representan más de 70 individuos en la colección biológica de Fray Deickman, que fue olvidada en un ático después de su muerte en 2003. Describimos el proceso y los logros de mejorar las condiciones de conservación de estos individuos, al mismo tiempo descubriendo su contexto e importancia para la historia de Belice en los siglos de dieciocho a veinte. El análisis preliminar revela historias de vida de esclavitud y servidumbre de individuos de ascendencia africana, maya, europea y posiblemente mixta africana y europea. Enfatizamos la importancia de la responsabilidad ética para conservar adecuadamente los restos humanos una vez excavados y los desafíos que enfrentan los investigadores una vez que la mala conservación resulta en la pérdida de información de proveniencia. También proporcionamos sugerencias para el análisis científico y la recuperación de información perdida como resultado de métodos de excavación o curación inadecuados.

Keywords: Belize, osteology, bioarchaeology, curation, museum studies, Moho Caye, Belizean history, post-colonial, island archaeology

Long-term post-excavation preservation of artifacts is often one of the greatest challenges in archaeological projects, especially those with limited funding. Insufficient resources are common, and projects often do not initially budget for adequate long-term curation facilities. Instead, many resort to existing infrastructure that either is poorly constructed or lacks local stewards trained in ethical and scientific curation standards. Furthermore, the concept of curation standards can vary in meaning and importance depending on region or collection. Small Caribbean or Central American countries such as Belize often do not provide the adequate financing required for research and antiquity preservation. Solutions are tenuous when it comes to the recurring issue of foreign researchers short on funds for proper continued curation.

Local financial realities are another issue because they often do not even come close to covering the funding necessary to conduct the work. Such issues are a reality throughout the world, and here we offer solutions and stress the importance of budgeting for and ensuring the safe conservation of materials excavated from archaeological sites.

There are many examples of once-forgotten private collections or collections in disrepair (MacFarland and Vokes 2017; Voss 2012). It is important that we, as historians, archaeologists, and anthropologists, bring our expertise to these collections and salvage what we can from those lost rooms and boxes, whether they contain artifacts, documents, or even human remains. In the

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example of human remains, the need for ethical treatment and curation is imperative: these were once living human beings whose remains deserve far better than to be lost to time in a box in a closet (Cassman et al. 2008).

A private collection revisited in the summer of 2016 at St. John's College in Belize City, Belize, is a textbook example of the challenges faced when provenience is lost. The assemblage is an extensive combination of biological specimens, objects of material culture from the ancient Maya, and human remains with unknown provenience. The authors discuss their process to reconstruct the broken history of the collection, and while care and indexing of the collection as a whole is underway, the curation of the human remains are the primary focus of this article.

The St. John's College (SJC) collection proves difficult for a number of reasons: First, over the course of three decades of abandonment, the collection has fallen into substantial disarray. Second, the collection represents nearly 2,000 years of prehistory and history, from ancient Maya through the Colonial periods, and much of it lacks records and discernable provenience information. Third, it remains unclear which artifacts were actually excavated by archaeologists, which might have been looted, and the extent of a collection assembled by a seemingly enthusiastic private collector. These issues make this case study particularly pertinent within a larger discussion of ethics in collection management.

FR. LEONARD DIECKMAN AND THE ST. JOHN'S COLLECTION

Founded in 1887, St. John's College is one of the oldest educational institutions in Belize. It was founded in the region known as British Honduras (named Belize in 1973) by the Society of Jesus in England; its province in St. Louis, Missouri, is a substantial donor to this day. As part of their involvement in Belizean education, the Jesuits have made substantial contributions to the fields of anthropology and history. During the late 1970s, Fr. Richard Buhler helped to establish the widely circulated and recognized academic journal *Belizean Studies*. Though now out of print, the journal highlighted all things Belizean: culture, history, society, economy, and politics. *Belizean Studies* asserted its legacy in the country's history and has featured articles on artifacts stored in the collection discussed here (Boxt 1984; Healy and McKillop 1980; McKillop 1985). This collection is referred to as the SJC collection, and Fr. Leonard E. Dieckman is identified as the primary person responsible for storing, cataloging, and curating it from the 1980s to the early 2000s.

Fr. Dieckman came to Belize as a young Jesuit in 1964 to teach at St. John's College. An enthusiast of anthropology, archaeology, and biology, he was arguably the only individual in the country to have held such a large private collection of biological specimens and artifacts at that time. The collection is classified as private because there seems to be little evidence that Dieckman received any significant institutional support except for the space to house it on the SJC Landivar campus.

Fr. Dieckman was a science teacher for 36 years (1964–2000) at the high school and junior college at St. John's College. He taught

chemistry at the high school and ecology at the college. He was also a founding member of the Belize Audubon Society. In May 2000, he and longtime friend and fellow enthusiast Alice M. Craig created an exhibit at the Image Factory Art Foundation in Belize City. *Eclectic* featured an array of items: human remains, ancient and historic archaeological material culture, and coral collections (Yasser Musa, personal communication 2016).

Before and after his retirement, Dieckman used the SJC collection as teaching material. In and out of professional circles, Dieckman and his collection were well-known. However, after Dieckman's death in 2003, no effort was made to provide stewardship for the collection, and it quickly deteriorated in the tropical environment, forgotten and falling into disrepair. The disordered nature of the collection as it exists today (Figure 1) is evident in its storage room: the wooden shelves are rotting; the cupboard storage boxes are torn, and their contents have fallen; and the room is severely infested with rodents, bats, lizards, nesting birds, and other small animals.

The complete inventory of this collection is yet unknown because a review of Dieckman's notes has so far been inconclusive, and restabilizing the collection by the authors and the faculty at SJC has only just begun. A brief survey of the room indicated a wide variety of artifacts, from precontact Maya objects to Belize's early European settlement and occupation of the seventeenth century and through the eighteenth, nineteenth, and twentieth centuries. Examples of Maya artifacts we observed include ground stones, stone tools of various styles and utility, boxes of ceramic sherds and reconstructed ceramic vessels spanning Maya civilization, obsidian, ceramic figurines, lithic eccentrics, and modified faunal remains. Boxt (1984) acknowledged St. John's College for assisting him with the safe storage of materials from his excavations on that site, but he did not elaborate on what types of artifacts were stored at SJC or the long-term conservation plan for the excavated materials. Some of the colonial material observed in this collection include a wide range of glass bottles, what appear to be burial headstones and other architectural pieces, and various miscellaneous artifacts.

There are many biological specimens in Dieckman's collection. Shelves hold faunal bone, fleshed faunal specimens (reptiles and amphibians) preserved in formaldehyde, and an array of marine specimens, such as shells and marine faunal remains. Campus lore at St. John's College names Dieckman as having one of the most extensive and inclusive biological collections in Belize (Musa, personal communication 2016). Regardless of whether this was the case, researchers from outside of Belize, including from the Smithsonian Institution, have visited the collection, but it is not always clear what they were studying or if any reports were made to Dieckman or the authorities in Belize. One logbook we discovered in this room records the names of people who visited the collection from around the globe and their respective institutions (Figure 2). One thank-you note referred to Dieckman as the collector, but notes on what or how he collected, the treatments applied to those materials, and other such information has not been found in any of the logbooks in the room.

Quiroz and Musa added bioarchaeologists Plumer-Moodie and Miller Wolf to the project in the summer of 2016 even though full efforts to salvage the artifacts are still in the planning and early implementation processes. Further collaboration has been



FIGURE 1. East-facing view of the Dieckman collection at St. John's College. The human remains were stored near the window. Photo by Quiroz, July 2016.

established between SJC and the Maya Research Program (directed by T. Guderjan) to store the human remains in an appropriate curation facility. Guderjan is attempting to support the archaeological materials from the room while the authors address the ethically urgent issue of proper housing for the human remains discovered in cardboard boxes.

THE HUMAN REMAINS OF THE SJC COLLECTION

Initially salvaged in the summer of 2016 from poor storage conditions (see Figure 1) by Quiroz and Musa, 12 partial human crania were transported to the Maya Research Program (MRP) facilities in Blue Creek, Orange Walk District, Belize. Musa (personal communication 2016) remembers that these crania were part of the exhibit Dieckman curated at the Image Factory in 2000. Quiroz requested that Plumer-Moodie and Miller Wolf conduct analyses on the 12 crania, which included only the calvarium, and provide a preliminary report to the St. John's College president, Alicia Peralta, to negotiate access to what was assumed to be the postcranial remains associated with those crania. Plumer-Moodie, Miller Wolf, and Quiroz successfully reviewed the isolated associated remains and encountered the remains of at least 75 additional individuals that included isolated partial crania, broken mandibles, long bones, loose and isolated teeth, and bone fragments. The remains—many more than previously thought and housed in much worse condition than expected—were removed with permission of SJC and transported to the MRP facilities, where they are currently curated and are undergoing osteological analysis. The 12 crania were carefully studied while the remains of

the other individuals were only documented and cataloged in the summer of 2016. Plumer-Moodie and Quiroz then conducted additional analysis in March and July of 2017. Currently, while the administration at St. John's College can choose to have remains returned to their campus, it has been jointly agreed between President Peralta (Musa, personal communication 2016) and the authors that the remains stay at the MRP facilities indefinitely, as the facilities in Blue Creek are more appropriate for housing human remains. In addition, bioarchaeological studies including DNA, $^{87}\text{Sr}/^{86}\text{Sr}$, and biodistance analyses are underway.

The analysis of the SJC human remains was conducted according to the bioarchaeological standards set by Buikstra and Ubelaker (1994). Ancestry assessments were based in forensic anthropological methodology using anthroposcopic traits of the vault, nasal bridge, and superior eye orbits (Brues 1977; Byers 2011; Krogman 1986; Rhine 1990; Sauer 1992). These methods are the basis for most osteological analyses in the Americas.

Each individual skeletal element has been photographed and assigned a skeletal inventory number. Analysis indicates that the human remains of the SJC collection are of African, European, and Maya descent (see Table 1), and there is marked evidence of physical trauma, intense physical labor, and poor health. The ages at death are wide ranging: while many adults are represented, only two children are present, the youngest being six years old at death. The ancestry of the individuals within the collection is equally varied; however, it is noteworthy that no males of European descent seem to be represented in the collection. The taphonomy of the bones—staining patterns, erosion, and the presence of mollusks—suggests long periods in seawater or in an island environment.

Table 1. Skulls in the SJC Collection According to Sex, Age, and Ancestry.

St. John's Sample Number	Sex	Age	Ancestry Assessment
SJ-1	male	30–40	African
SJ-2	male	30–40	African
SJ-3	male	40–50	African and European
SJ-4	male	40–50	African
SJ-5	male	30–40	Maya
SJ-6	female	25–35	European
SJ-7	female	40–50	European
SJ-8	female	30–40	African
SJ-9	female	25–35	European
SJ-10	female	45–50	African and European
SJ-11	female	50–55	European
SJ-12	female	Adult	Undetermined
SJ-13	male	35–50	African
SJ-14	female	20–35	Maya
SJ-15	male	30–35	Undetermined
SJ-16	male	20–35	Undetermined
SJ-17	male	40–50	Undetermined
SJ-19	female	35–50	Maya
SJ-20	female	35–50	Undetermined
SJ-21	female	35–50	Undetermined
SJ-22	female	40–50	Maya
SJ-23	N/A	6+/-2	Undetermined
SJ-24	female	40–50	European
SJ-25	female	50+	European
SJ-26	male	40–50	Undetermined
SJ-27	female	50–	European
SJ-28	female	35–50	Undetermined
SJ-29	male	35–50	African
SJ-30	undetermined	30–40	undetermined
SJ-31	female	35–50	European
SJ-39a	female	25–35	European

period when the island was used to house a quarantine facility, which is supported in the historical record. The *Annual Report of the Surgeon-General of the Public Health and Marine Hospital Service of the United States for the Fiscal Year 1909* describes “the suspicious case or cases [tropical illness like yellow fever and malaria] being removed to the isolation hospital at Moho Caye, about three miles from town” (US Treasury Department 1910:136). Additionally, in a description of the geography of Belize at the time, author A. Barrow Dillon (1923) cites Moho Caye as a quarantine station. Finally, it was known that several epidemics of yellow fever, typhoid, and influenza from 1700 to 1918 struck the vulnerable populations hardest. In the 1918 to 1919 influenza epidemic, nearly 100,000 people died in the Caribbean, with the greatest mortality among laborers and slaves, especially males from 15 to 40 years old and low-status European single or widowed women working as servants (Killingray 1994). The apparent demographic profile seems to support the hypothesis that the skeletal remains of the SJC collection were indeed

from the quarantine period of Moho Caye, as males of European descent do not appear to be represented.

The absence of a specific provenience for each individual in the SJC collection remains a challenge even if the Moho Caye theory holds. If all individuals are in fact from Moho Caye, the question remains of what historical period most are from. The particulars of the estimated demographic profile (African and Maya males and females and European females with signs of physiological stress) can place these individuals as early as the second half of the 1600s with the first Spanish and British pirate activities along the isthmus of the Central American coast (Shoman 2004; Bulmer-Thomas and Bulmer-Thomas 2012). The earliest historical record of a settlement established at Moho Caye dates to 1807, when a Rev. W. Standford was granted official title to take up residence on the island (Burdon 1934). Eighteen years after the first known document of occupation on Moho Caye, the settlement of British Honduras became one of the busiest entrepôts in Central America (Bulmer-Thomas and Bulmer-Thomas 2012). Researchers estimate that from 1825 to 1845, “Belize controlled between 90 [and] 100% of the value of Central American imports from the UK” (Bulmer-Thomas and Bulmer-Thomas 2012). This would also coincide with the peak of the mahogany exports from Belize, with the majority of those exports coming from the Belize River (Bulmer-Thomas and Bulmer-Thomas 2012). African and Indigenous indentured servants and slaves provided the labor. With the removal of the Spanish empire from the isthmus of Central American and the Yucatán, the migration of people once restricted under Spanish colonial law became fluid, and Belize City became the busiest port along the coast en route from Yucatán to Honduras, with Moho Caye at its nucleus. The consistent flow of travel and goods along the coast creates further challenges in chronicling the history of the individuals believed to have been recovered from Moho Caye and stored in Dieckman’s collection.

FURTHER ANALYSIS OF THE ST. JOHN’S COLLEGE SKELETAL COLLECTION

Through a grant to Miller Wolf, laboratory analyses are currently underway to more accurately estimate ancestry, migration, and dates. These analyses form the basis from which we can begin to reconstruct the life history of those in the SJC collection, given that we lack virtually all other contextual information. Samples were taken from the dental apatite of 20 individuals (SJ-10, SJ-11, SJ-14, SJ-16, SJ-23, and SJ-26 [see Table 1] and 14 other individuals) to acquire radiogenic strontium isotope values ($^{86}\text{Sr}/^{87}\text{Sr}$) to identify any potential first-generation paleomobility. Two additional dental samples were collected for radiocarbon dating (SJ-10 and SJ-14), and three for DNA analysis (SJ-14 and two others). Results of the radiocarbon dates were inconclusive given the contextual information from the collection. The dental collagen samples dated much earlier than we expected (1960 +/- cal BP and 2140 +/- 30 cal BP), as a gross examination of the skeletal material suggested a more recent history. A potential though unlikely possibility is that the remains, having been submerged in the ocean turf, underwent reservoir effect (Druffel 1980; Ulm 2006), in which remains take on the radiocarbon dates of coral or sea life if the remains are submerged or the individual had an extremely

high seafood diet. The latter would only be possible if the individuals had a nearly 100% seafood diet, and even that would not suffice in skewing the data so dramatically (Darden Hood, personal communication 2018). Instead, the resulting discrepancy could be attributed to the remains being treated at some point (perhaps by Dieckman or perhaps by others) with a yet-undetermined or macroscopically undetected varnish or glue (Darden Hood, personal communication 2018).

The discrepancy in the radiocarbon dates, whatever the cause, shows that further analysis is required to conclusively ascertain the origins of the individuals represented, perhaps including additional samples for carbon dating. The forthcoming results of the $^{87}\text{Sr}/^{86}\text{Sr}$ and biodistance analyses will provide more insight into the origins and history of these individuals.

CONCLUSIONS

We hope restoring the room that once housed Dieckman's curated collection will elucidate the key contextual information needed to determine some provenience information for the remains, artifacts, and objects he once studied. The initial review of the notebooks found in that room and piecemeal historical data indicated that Dieckman was primarily concerned with the biological specimens (excluding the human remains) within his collection. Because Moho Caye is the most likely provenience for the human remains, we are using this as the foundation for future investigation in reconstructing the history of these individuals in a collaborative effort between bioarchaeologists (Plumer-Moodie and Miller Wolf) and historians concerned with their own cultural patrimony (Quiroz and Musa). The skeletal remains are presently stored at the MRP, where the authors continue their gross analysis of the remains. The material artifacts and biological samples remain at the SJC.

In the wider chronology of Belizean history, not much emphasis has been placed on the role of Moho Caye in the nucleus of early British settlement in this area. Regarding Moho Caye as a footnote in the wider narrative creates an additional challenge for researchers. However, it is anticipated that more archival investigations into the occupation of the island since European contact will correlate with the bioanalysis of the individual remains. The authors are currently undertaking full-scale biodistance and osteological analyses of the skeletal remains. Ideally, we would return to Moho Caye for further archaeological investigation, but it is highly unlikely that this will occur because of major development on the island. There has been extensive dredging in the cay's northern portion for the construction of a harbor to serve its repeated use as a destination for tourists who may be unaware of the cay's unfortunate history. This inability to collect data is just another example as to why care in the maintenance of collections curation is important. If we let collections continue to erode, we will lose vital information on culture history. In the case of human remains, it is our ethical duty to properly care for, curate, or repatriate those remains.

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Data Availability Statement

Skeletal data used in this article is housed at the Maya Research Program in Blue Creek, Orange Walk District, Belize. Saint John's College houses the material artifacts. The authors can be contacted for additional information.

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