

INTRODUCTION

On the Trail of Crystal Skulls



The human skull has been a source of fascination throughout history. The head is the most captivating feature of our anatomy, containing as it does the power center of the brain, which animates and regulates bodily functions and is the recording apparatus for all of our senses. The skull is a skeleton's most recognizable element. It is a symbol that has been used to convey such concepts as danger, mortality, conquest, forethought, and redemption.

The skull is multivalent in Christian iconography. At the foot of the cross, it represents all of humanity as personified by Adam. When shown in paintings of saints, it is a reminder of the brevity of life. Echoing this theme, sixteenth-century Dutch still lifes often feature skulls and insects nestled among exotic blooms and luxury items. Skulls were the most important element of *memento mori*, as a reminder of the need to be prepared for the afterlife. The skull and crossbones displayed by pirates was universally recognized as a threat of murder and mayhem.

In the Americas, the skull was an important feature of Aztec ceremonies in Mexico from the fourteenth to the sixteenth century. Captives and slaves who were sacrificed before the images of their gods had their hearts torn out, their bodies divided up for consumption, and their heads removed to be impaled and placed on skull racks. The Aztecs fashioned skulls out of stone to be architectural ornaments, carved images of deities wearing skulls on necklaces and belts, and occasionally painted them on pottery.

In the second half of the nineteenth century Aztec skulls carved from rock crystal appeared in museum collections on both sides of the Atlantic. They were much admired for the beauty of their translucent material and the evident skill with which they had been carved by ancient artisans using primitive stone tools. Increasing their exotic allure was the notion that they played some role in the bloody human sacrifices practiced by Aztec priests.

A rock crystal skull, sent through the US Postal Service, arrived at the Smithsonian Institution a number of years ago as an anonymous donation. The package had gone to the National Museum of American History. A handwritten note accompanying it said that it was an Aztec skull purchased in Mexico in 1960. The note also said that the skull had belonged to Porfirio Díaz, the dictator of Mexico from the late 1870s until 1910.

I entered the picture when Richard Ahlborn, a colleague at American History, called me. He knew I was the primary researcher on Mexican pre-Columbian archeology in the Smithsonian's Museum of Natural History. He asked me what I knew about crystal skulls, and I told him that the British Museum had a life-size crystal skull on exhibit which was said to be Aztec, as did the Musée de l'Homme in Paris, and that my own department in the National Museum of Natural History had once exhibited a small crystal skull as a fake. After a short discussion, he said, he wasn't sure what to do with it. "I'll take it!" I said, without giving it too much thought.

Richard delivered it the next day. It was surprisingly large, 10 inches in height—about the size of a football helmet—and heavy, weighing 31 pounds. It had been carved and hollowed out from milky white quartz. It had prominent teeth, deep eye sockets, and circular depressions at the temples. I asked for a cart to move it from the loading dock to my office. An archivist standing nearby jokingly warned, "Don't look it in the eye! It might be cursed."

Once I had gotten the skull upstairs, I examined it carefully. It was an impressive and interesting artifact, but did not look at all Aztec, or even pre-Columbian. It was much too big, the proportions were off, the teeth and circular depressions at the temples did not look right, and overall it seemed too rounded and polished. It went into a locked cabinet and I forgot about it for a while.

When a colleague asked me to write a book chapter about an unusual or problematic object in the Department of Anthropology's collection, the crystal skull came to mind. The Porfirio Díaz provenance was anecdotal, and the Aztec attribution seemed unlikely to me since no crystal skull had ever been found in an archeological excavation in Mexico. When the editors accepted my proposal, I began to concentrate my research on crystal skulls.

I first investigated the archival and published history of the two-inch crystal skull I knew about in the Smithsonian's collections. It came to the museum from Mexico in the nineteenth century as part of the Wilson Wilberforce Blake Collection, but it disappeared sometime in the 1970s after it was taken off exhibit. When Smithsonian geologist William Foshag examined this small skull in the 1950s, he determined that it had been carved and polished with modern lapidary equipment. Foshag had spent many years studying pre-Columbian carvings in jadeite and other hard stone and was extremely knowledgeable about carving and polishing techniques (Foshag 1957). He wrote on the catalog card that the skull was "definitely a fake, made on a lap wheel and polished with a wheel



Figure 0.1 Smithsonian crystal skull. Photo by James Diloreto (National Museum of Natural History, Department of Anthropology, 562841).

buffer” (National Museum of Natural History, Department of Anthropology, cat. Card #98949 5/27/1952).

The collection accession file contained a sheaf of letters Blake had written to the Smithsonian curator, William Henry Holmes. Blake’s letters were filled

with journalistic details discussing archeological questions and general goings-on in Mexico City. One letter from 1886 passed on some juicy gossip about a “Frenchman named Boban,” who had tried to sell a fake crystal skull to Mexico’s Museo Nacional in partnership with Leopoldo Batres, the Mexican government’s inspector of archeological monuments. This was the first time I encountered Boban’s name.

I already knew that both the British Museum in London and the Musée de l’Homme in Paris had a large crystal skull in their collections, so I contacted Elizabeth Carmichael at the British Museum and Daniel Levine at the Musée de l’Homme requesting information about their skulls. Carmichael’s response was full of interesting notes about the acquisition history of the British Museum crystal skulls—they had two—as well as comments on scientific studies performed on them since the 1960s. A copy of the original registration slip for the smaller skull indicated it might have been purchased in the 1860s, and the larger skull, which was the one I had known about, was purchased in November 1897 from Tiffany & Co. of New York, through George F. Kunz.

Daniel Levine’s letter informed me that he believed the crystal skull was one of the most important artifacts in the museum’s pre-Columbian holdings. A copy of the object’s catalog card indicated that the skull was part of the Alphonse Pinart Collection, which had arrived in 1878, when the Musée d’Ethnographie du Trocadéro, France’s national ethnographic museum and the Musée de l’Homme’s predecessor, first opened to the public.

One fact stood out at this point in my research: all the crystal skulls I had identified in Europe’s major museums seemed to have appeared within a thirty-year period, between the 1860s and the 1890s. This was true of the two Smithsonian crystal skulls as well. The small one from Blake was purchased in 1886 and the newly arrived, much larger skull would have surfaced during the same time period if it had, in fact, been part of the Porfirio Díaz Collection. Were they from a cache of ancient artifacts that someone had uncovered and slowly sold off or were they all fashioned by a nineteenth-century crystal carver who had some odd affinity for crania? I knew that at least one of them, the small Smithsonian skull examined by Foshag, had been carved with modern lapidary equipment, but what about the others? This trail was already becoming interesting.

Turning to the literature on crystal skulls, I consulted books, articles, and exhibition catalogs. The skulls were always described as amazing examples of pre-Columbian lapidary art, given that the carvers had worked only with stone tools. Rock crystal is quartz, a relatively hard stone—seven on the ten-point Mohs scale. It is extremely brittle, making it even more difficult to carve and prone to shattering when worked inexpertly.

William Foshag’s assessment that the early Smithsonian skull had been carved with modern tools led me to consult published studies on faked pre-Columbian antiquities. One of the earliest scholarly investigations into the nature and

problem of faked antiquities came from William Henry Holmes, a geologist, archeologist, and artist who served in numerous capacities at the Smithsonian Institution for more than six decades. In an 1886 article in the journal *Science*, he wrote about fake Mexican pre-Columbian artifacts that he believed were being sold in large quantities to the world's museums at the time.

Following in Holmes's footsteps, I focused my research on faked pre-Columbian artifacts, and soon found a 1982 compilation entitled *Falsifications and Misconstructions of Pre-Columbian Art*, published by Dumbarton Oaks Research Library and Collection in Washington, DC. The chapter "Three Aztec Masks of the God Xipe," written by Esther Pasztory, the noted art historian from Columbia University, provided an unexpected clue about the origins of the crystal skulls. One of the three stone masks she discussed, which she believed to be a fake, was part of the Alphonse Pinart Collection in the Musée de l'Homme. This was the same collection mentioned in Daniel Levine's letter about his museum's crystal skull. However, according to Pasztory, Pinart had not actually formed the collection himself—he had purchased it from a French antiquarian named Eugène Boban (Pasztory 1982: 94). The name immediately rang a bell, bringing to mind Blake's letter to Holmes naming Boban as an accomplice in the attempted sale of a fake crystal skull to Mexico's Museo Nacional (SIA 3/29/1886). Now it appeared that the crystal skull in France's foremost anthropological museum had originated with Boban! I would soon discover that the Pinart Collection contained a second, though much smaller, crystal skull, also purchased from Boban.

Another link between Boban and crystal skulls came from the catalog entry for the British Museum skull, which named George F. Kunz, a gemologist and vice president of Tiffany & Co., as the intermediary in this purchase. Also referenced on the catalog card was Kunz's book *Gems and Precious Stones*, published in 1890. In it he enumerated several artifacts in rock crystal then known to him. "Small skulls are in the Blake Collection at the United States National Museum [Smithsonian Institution], the Douglas Collection New York, The British Museum and the Trocadéro Museum. A large skull, now in the possession of George H. Sisson of New York, is very remarkable. . . . Little is known of its history and nothing of its origin. It was brought from Mexico by a Spanish Officer sometime before the French occupation of Mexico, and was sold to an English collector, at whose death it passed into the hands of E. Boban, of Paris, and then became the property of Mr. Sisson" (Kunz 1890: 284). Could the large crystal skull in the British Museum be the same one that had belonged to Sisson? If so, this meant that the London and Paris museums had gotten their crystal skulls from the same man, Eugène Boban. But how had the skull moved from Sisson to the British Museum's collection?

Delving deeper into Holmes's papers in the Smithsonian Institution Archives, I found an annotated sales catalog for an auction of Boban's ethnographic and

archeological collection that took place in New York in December 1886. The catalog listed almost two thousand objects. Holmes had attended the auction and noted names and prices alongside most of the pre-Columbian artifacts, which were of particular interest to him. Some ceramic vessels, several of which he sketched, sold for between \$5 and \$10. A terra cotta group of three figurines, described as Maya Quiche gods, sold for \$35, and a carved stone figure from Veracruz went for \$46 (Leavitt 1886a: 22, 24, 27). Several small crystal skulls appear, and one of “natural size” is described.

According to Holmes’s annotations, the natural-sized skull went for the highest price of anything in the catalog, being purchased for \$950 by someone named Ellis. Further investigation revealed that a jeweler named J. L. Ellis had been a partner at Tiffany & Co., although he had retired from the firm by 1886 (Hannan 2008: 513). This meant that Tiffany’s purchased this crystal skull at the Boban auction in New York City. In any case, as recorded by Kunz in his gem book, George H. Sisson, who made a fortune in mining ventures in Colorado and Arizona (Bancroft 1889: 734), owned the skull in 1890. In the mid-1890s Sisson either sold the skull back to Tiffany’s or asked Kunz to sell it for him. The British Museum purchased it from Tiffany’s, through Kunz, in 1897.

At this point almost all the crystal skulls I had identified—the large and small skulls at the Musée de l’Homme and the large skull at the British Museum—could be traced directly back to Eugène Boban. However, I still was unsure of their authenticity.

The opportunity to scientifically determine the authenticity of the skulls came from an unexpected source. As a result of my correspondence with the British Museum curator, Elizabeth Carmichael, an independent producer of documentaries contacted me, describing a television program about crystal skulls that he hoped to make for the BBC. Eventually this led us to plan a joint study of the crystal skulls in the British Museum, the Smithsonian Institution, the Musée de l’Homme, and possibly in a few private collections, filming the entire process.

Because we needed an example of carved rock crystal that we knew was definitively pre-Columbian as a basis of comparison with the skulls, I suggested that the documentary’s producers contact the Instituto Nacional de Antropología e Historia (INAH) in Mexico City to request the loan of a rock crystal goblet that had been recovered from excavations at Monte Albán in Oaxaca, to use in the study. To my knowledge the goblet is the only large quartz or rock crystal object that has come from an archeological dig. It would give us an unquestionable example of pre-Columbian materials, procedures, and carving techniques to use as a yardstick for evaluating our array of crystal skulls.

After completing a couple days of filming at the Smithsonian, the production crew moved on to London to continue at the British Museum. Arriving at the Department of Scientific Research, located in an early nineteenth-century row

house on Russell Square, I met with Elizabeth Carmichael and Margaret Sax, a specialist in prehistoric stone carving. She and her colleagues were poised to examine the two British Museum skulls and the large Smithsonian skull. Mexican archeologist Arturo Oliveros had brought the rock crystal goblet from Monte Albán. The goblet, insured for a million dollars, was placed on a long table in the center of the room next to the British Museum skulls and the Smithsonian skull, which dwarfed the other artifacts.

Margaret Sax had developed a method for studying tool marks left on carved stone from her work examining several thousand Mesopotamian cylinder seals dating from 3500 to 400 BC. First, she would look for residual tool marks on the seals under a light microscope. Then, to get a clearer view of the tool marks, she would take silicone molds of the incised areas of the seals and examine them using a high-powered scanning electron microscope (SEM). As the SEM beam scans the mold's surface, it generates an image of its topographical features. Sax was now prepared to try out her method on the crystal skulls in question.

Placing the super-sized Smithsonian skull under the light microscope was quite an undertaking. Sax had to stand on tiptoe to look through the lens, but within a short time she seemed certain about what she was seeing. Then she moved on to the two skulls in the British Museum's collections. Ultimately, after taking silicone molds and reviewing them under SEM, she determined that the two British Museum skulls and the Smithsonian skull had all been carved with rotary cutting tools. By analyzing the impressions of the tool marks replicated on the silicone molds, she could clearly demonstrate that all three crystal skulls had been carved and polished using modern technology. The remnant marks on the skulls did not resemble in the least those found on the pre-Columbian crystal goblet from Monte Albán. None of these skulls could possibly be Aztec.

The next task was to examine the crystal skulls Boban had sold to Alphonse Pinart. Since the Musée de l'Homme had refused to lend its skulls for the study, I flew to Paris, following our work at the British Museum, to at least have a close look at them. Although I thought that I had arranged to see them through my correspondence with Daniel Levine, upon my arrival at the Musée de l'Homme, I discovered that he had left for Mexico the previous day. Luckily mutual friends introduced me to Marie-France Fauvet-Berthelot, an archeologist who had worked at Copán in Honduras and at archeological sites in Mexico. She was then the museum's curator of pre-Columbian archeology. Fauvet-Berthelot directed me to the exhibit area, where I spent some time examining the larger crystal skull through its glass vitrine. She later showed me a small pamphlet entitled "Museo Científico," which advertised a private museum that Boban opened in Mexico City in the mid-1880s. The pamphlet's descriptions of the exhibit rooms included one where a crystal skull was on display. By then it had become clear to me that the entire crystal skull story revolved around Eugène Boban. But who was he?

In the early years of the twenty-first century, I read an article about Boban's career written by Pascal Riviale, a French historian who has focused on nineteenth-century archeological explorations in Latin America. His research gave me an entirely new perspective on Boban. According to Riviale, Boban corresponded with Max Uhle, a pioneer of Andean archeology and curator at the Royal Museum of Zoology, Anthropology and Archeology in Dresden, Germany; Enrico Giglioli, the director of the Royal Zoological Museum of Florence, Italy; Ernest T. Hamy, founding director of the Trocadéro; and many others—a veritable who's who of nineteenth-century museum curators. Up to that point I had no inkling that this man, whom I knew only through his association with crystal skulls, could have had business dealings with so many well-known European intellectuals, or that he sold artifacts to most of the important museums in Europe.

A few years later, Leonardo López Luján, a Mexican archeologist and friend, emailed me saying he was in Paris working with Marie-France Fauvet-Berthelot to create a catalog of the Musée de l'Homme's Aztec collection. He wondered what he should say about the crystal skulls. I decided the time was right to go to Paris to see what more I could learn about Boban through the collection he formed. Working with López Luján and Fauvet-Berthelot in the storage of the Musée de l'Homme during that time was enormously rewarding and enlightening. The Pinart/Boban collection was impressive, comprising some 2,400 artifacts. Seeing and handling it helped me appreciate Boban's broad expertise and inspired me to continue following his trail.

I later returned to Paris for further work on the collection and met with Pascal Riviale, who introduced me to Boban's correspondence at the Bibliothèque nationale. The library had five albums of letters sent to him over nearly four decades. Four albums have letters that he received from a variety of correspondents arranged in alphabetical order, while the fifth contains only letters from the French-Mexican industrialist Eugène Goupil arranged chronologically. Paging through the albums for the first time, I hoped at least to recognize the names of people and places, since my reading French was still quite limited.

The second album yielded several familiar names and even had letters written by the Smithsonian's William Henry Holmes. They were in English and were of great interest to me. A bit further on in the album I found several letters from George Kunz, including a note about retrieving a box for a skull—yet another confirmation that the British Museum skull originated with Boban.

After a few hours of reading through the albums, I had found quite a number of familiar Mexican, French, American, and German names. The letters provided a wealth of information about Boban, the business of archeology, and museum formation in the nineteenth century. Through his correspondence I learned much about his commercial activities—to whom he sold and with whom he traded, which museums purchased his artifacts, and how extensive his collections

and knowledge were. However, only a few of these business letters yielded much information about the man himself.

The following year, thanks to Sharon Lorenzo, who was working on a dissertation on the famous Joseph Marius Alexis Aubin Collection of Mexican codices and painted manuscripts, I learned that there were fourteen boxes of Boban's personal papers at the Hispanic Society of America (HSA) in New York City. Arts patron and connoisseur Archer Huntington, who founded the society, had purchased the collection from a German bookseller in 1910. Boban had organized the papers in leather-bound boxes with gold embossed titles "Collection Boban," with individual headings such as "Mexican Antiquities," "Mexican Manuscripts," "Weapons and utensils," "Mexican civilization, indigenous literature," and "Myths and monuments." Reading through the thousands of pages in Boban's own hand has done much to fill out the picture of his collecting and dealing. Each box is packed with a welter of information, including copies of published articles, newspaper clippings, notes about artifacts, and personal reminiscences of his life, written on the back of business receipts and other scraps of paper. This trove of information has provided a few more details about the man and his life's trajectory living and working in France, the United States, and Mexico.

I found a kindred spirit in Boban. His writings in the Hispanic Society reveal a man who was passionate about collecting ancient artifacts and illuminating their meaning. His recollections of his idyllic life in Mexico struck a chord with me. I, too, spent much of my youth in Mexico City, studying and traveling throughout the country, falling in love with the land and the people. There is a saying that once the dust of Mexico has settled on your heart, you will never be happy in another place. Boban's life and career seem to corroborate that sentiment. Our shared love and appreciation of Mexico and its ancient cultures has generated an ongoing interest in discovering more about this intriguing and enigmatic man.