

## “Caution, Do Not Touch”: Solutions to Tracking Pesticides on Native American Objects

By Alexander “Lexi” Echelman, M.A.

On the news today many of us hear about looting from archaeological sites happening in places like Egypt, Syria, and Turkey. Cultural heritage preservation specialists are looking into steps that could alleviate the local need to pilfer items and sell them on the black market; some of these initiatives include involving residents of the area in archaeological excavations. I bring this up today to explain that this problem was not necessarily unique to countries in the Middle East in the years before 1990. In fact, American Indian communities in the United States underwent frequent grave robbing expeditions from professional archaeologists and amateurs alike throughout the majority of the twentieth century.

Local and federal laws in the United States did little to reduce the destruction of Indigenous graves until the fateful passage of the Native American Graves Protection and Repatriation Act (NAGPRA) in November of 1990. Legal historians like Rebecca Tsosie (Yavapai) argued that previous archaeological legislation before NAGPRA mostly considered Indigenous cultural heritage to benefit “historic and scientific interest to the public at large.”<sup>1</sup> While there were many factors to move NAGPRA legislation over, the work of Howard Price in Salina, Kansas certainly had an effect lawmakers rethinking the loopholes in legislation for American Indian rights. From the 1930s until 1989, this amateur archaeologist and farmer allowed thousands for visitors to see “honey-colored piles of bones” of 146 Pawnee Indian men, women, and children—all for three dollars and fifty cents.<sup>2</sup> Walter Echo-Hawk, an enrolled member of the Pawnee Nation and activist in the Native American Rights Fund (NARF) condemned Price’s actions as “nothing more than racist grave-robbing” and even equated these unethical demonstrations to Nazi doctors who conducted horrid experiments on Jewish subjects.<sup>3</sup> Through the actions of

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<sup>1</sup> Tsosie, Rebecca. “Indigenous Rights and Archaeology” in *Native Americans and Archaeologists: Stepping Stones to Common Ground* by Swindler et al. Washington D.C.: Altamira Press, 1997. Page 69.

<sup>2</sup> Brower, Montgomery and Conan Putnam. “Walter Echo-Hawk Fights for His People’s Right to Rest in Peace-Not in Museums.” PEOPLE.com. Accessed December 09, 2018. <https://people.com/archive/walter-echo-hawk-fights-for-his-peoples-right-to-rest-in-peace-not-in-museums-vol-32-no-10/>

<sup>3</sup> Echo-Hawk, Walter and Vicki Quade. “Who Owns the Past.” In *Human Rights* Vol. 16 No. 3, (Winter 1989-1990). Page 24-28.

Echo-Hawk and many others, Price's burial pit was ultimately closed down and, soon, federal legislation through NAGPRA outlawed graves destruction and the unchecked acquisition of Native American objects in museums.

NAGPRA distinguished itself from previous legislation by encouraging museum and tribal collaboration on an unprecedented scale. The words "consultation" and "compromise" alone appear eighty times all combined in this seventeen-page document.<sup>4</sup> Once "they [the museums] are required to compile inventories or provide summaries of Native American remains and cultural items in their possession,"<sup>5</sup> the legislation then enables more meeting points between these factions.<sup>5</sup> Not only did these registries bring about better protection for grave sites than ever before, but NAGPRA also implemented criteria where museums must comply with the law through returning cultural items, funerary objects, or human remains to the tribe of origin. This process is known as repatriation, and it ultimately upheld the belief that some objects are wrongfully in museums. The law, as many archaeologists feared, did not "empty their shelves," but rather allowed meetings that provided more perspectives on the significance of these items and where they belong.<sup>6</sup> NAGPRA, therefore, is the closest item to archaeological history of North America to respect the human rights of Native American people, and thus, it provides an inspiring standard to follow.

The unparalleled benefits of NAGPRA soon unearthed dire problems, however, that the founders of this document did not foresee. Through legal compliance, the Peabody Essex Museum returned three sacred Hopi ceremonial masks in 1995 that this nation from Arizona considered to be alive and directly connected to their ancestors.<sup>7</sup> Six to twelve months after repatriation, museum staff had high reason to believe that the three items recently returned had been treated with arsenic.<sup>8</sup> The severity of the situation rapidly

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<sup>4</sup> Colwell, Chip. *Plundered Skulls and Stolen Spirits: Inside the Fight to Reclaim Native America's Culture*. Chicago: University of Chicago, 2017. Page 178.

<sup>5</sup> Nafziger, James A. R. "The Protection and Repatriation of Indigenous Cultural Heritage in the United States." *Williamette Journal of International Law and Dispute Resolution* Vol. 14 No. 2, 2006. Pg 175-225. Page 189.

<sup>7</sup> Colwell, Chip. *Plundered Skulls and Stolen Spirits: Inside the Fight to Reclaim Native America's Culture*. Page 220.

<sup>6</sup> Colwell, Chip. *Plundered Skulls and Stolen Spirits: Inside the Fight to Reclaim Native America's Culture*. Page 7.

<sup>7</sup> Odegaard, Nancy. *Old Poisons, New Problems*. Walnut Creek: Altamira Press, 2005. Page 1.

<sup>8</sup> Odegaard, Nancy. *Old Poisons, New Problems*. Page 1.

compounded when Hopi members usually adorned these pieces on their faces in poorly ventilated chambers and stored them next to food, which could pick up these toxic contaminants.<sup>9</sup> The sacred items had to leave Hopi custody for a second time while museum conservators and Environmental Protection Agency (EPA) specialists assessed the human health threats of these collections.<sup>10</sup> Evidently, this would not be a singular case study but one that indicated that many Native American heritage items would possess residual pesticides that impeded the museum's ability to uphold NAGPRA.

Upon preliminary examination from conservators like Dr. Nancy Odegaard at the Arizona State Museum (ASM), museum staff soon learned that toxin application was a commonplace practice for organic materials in the years before the advent of Integrated Pest Management (IPM) in the 1990s. While the use of arsenic pastes and dusts to preserve taxidermy collections began as early as the eighteenth century, its use on Native American heritage can be traced to as early as 1884 when Smithsonian curator Otis T. Mason noted that organic materials "were destroyed even before they reached the museum."<sup>11</sup> There were no enclosed storage cabinets in museums like today and no contracted pest management companies either; this exposed many collections to rapid infestation while on route to the museum. We can conclude that this was a frequent occurrence because Mason's colleague Walter Hough proclaimed "in a great museum the abundance of material will not permit its frequent examination, so that all specimens should be thoroughly poisoned before they get out of sight."<sup>12</sup> Although this only illustrates residual pesticide use in Smithsonian institutions, the problem is likely widespread because these prominent curators were producing literature about how to

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<sup>9</sup> Loma'omvaya, Micah. "NAGPRA Artifact Repatriation and Pesticide Contamination: The Hopi Experience." Paper presented at Contaminated Collections: Preservation, Access, and Use, Shepherdstown, West Virginia, April 2001. Page 34.

<sup>10</sup> Loma'omvaya, Micah. "NAGPRA Artifact Repatriation and Pesticide Contamination: The Hopi Experience." Page 36.

<sup>11</sup> Austin, Michele, Natalie Firnhaber, Lisa Goldberg, Greta Hansen, and Catherine Magee. "The Legacy of Anthropological Collections Care at the National Museum of Natural History." [CoOL] Accessed December 9th, 2018. [http://cool.conservation-us.org/jaic/articles/jaic44-03-004\\_4.html](http://cool.conservation-us.org/jaic/articles/jaic44-03-004_4.html)

<sup>12</sup> Hough, Walter. "The Preservation of Museum Specimens from Insects and the Effects of Dampness." In *Cradles of American Aborigines* by Otis T. Mason (ed.). Washington D.C., Smithsonian Institution, 1887. Page 549.

properly poison items for other museum staff so that these items would be preserved for posterity.

Given the seriousness and pervasiveness of the problem, governmental officials responsible for upholding NAGPRA quickly revised existing legislation to better accommodate this unexpected problem—but the solution lacks the same spirit of compromise that the rest of the law possesses. Section 10(e) of the 43<sup>rd</sup> Code of Federal Regulations (CFR) states that

The museum official or Federal agency official must inform the recipients of repatriations of any presently known treatment of the human remains, funerary objects, sacred objects, or objects of cultural patrimony with pesticides, preservatives, or other substances that represent a potential hazard to the objects or to persons handling the objects.<sup>13</sup>

This is an admirable step in the right direction, but the addendum unfortunately fails to address the scope of the problem. Since toxin notification is only limited to “presently known” cases, examples such as the Peabody Essex Museum in Salem are not liable because there was very scant documentation of the presence of residual pesticides on the Hopi masks. Indeed, Dr. Odegaard goes as far to conclude that “museum documentation cannot be relied on to identify contaminated specimens” since collector notes mismatched with the examined amounts of found toxins such as arsenic.<sup>14</sup> Furthermore, words like “compromise” and “consultation” about such a difficult topic are excluded from the legal realm. The ability to actually discuss the potential threat of pesticides and the needed safety procedures to lessen this harm are *ethical* consideration for museums to give—not legal ones. The same is true for money to pay for testing of the exact pesticide composition on an item; the lack of legislation exacerbates problems because some tribes can pay for testing while others cannot. The future of NAGPRA legislation, therefore, needs to address ways to bring museum and tribal stakeholders into

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<sup>13</sup> U.S. Congress. 1990. Native American Graves Protection and Repatriation Act of 1990 (Pub L No. 101-601) and NAGPRA Regulations (43 CFR §10). Government Printing Office, Washington, DC.

[https://www.nps.gov/nagpra/mandates/43\\_CFR\\_10\\_12-4-95.pdf](https://www.nps.gov/nagpra/mandates/43_CFR_10_12-4-95.pdf)

<sup>14</sup> Seifert, S.A., L.V. Boyer, N. Odegaard, D.R. Smith, and K.E. Dongoske. 2000. Arsenic Contamination of Museum Artifacts repatriated to a Native American tribe. *Journal of the American Medical Association* 283(20):2658–9.

an agreement about clauses to mandate such consultations about this aspect of the law since the problem will continue to progress as more repatriation cases occur.

I examined available conservation literature on the subject of residual pesticides and found that it, too, avoids the central problem of fulfilling NAGPRA's ideals. Publication titles such as "Reliability of X-Ray Fluorescence for the Quantitative Analysis of Arsenic in Contaminated Leather" by Kathleen Bond in 2007 or "Historical Survey of the Sources of Contamination of Ethnographic Materials in Museum Collections" from Catharine Hawks in 2001 contribute useful knowledge to understanding the problem—but largely circulate within the spheres of conservators and other like-minded professionals. This is not inherently a problem, but it highlights the continuing divide in actively disseminating this information in a practical matter to Native American tribes who need the answers—and need them now. Thus, I propose using my museum studies background to approach the problem as an archivist and collections manager. Rather than directly studying scientific techniques in the examination or removal of residual pesticides, I try to look at museum ethnographic collections as a whole to identify *patterns* in pesticide appearance and ways to involve outside perspectives to fully tackle the problem. In order to do this, I argue that the creation of a multi-user access database connecting museums, medical toxicologists, and tribal agencies to one server is the best method to connect advances in conservation science to developments in NAGPRA legislation. This could be any online platform with basic password protections to start, and ideally would grow to involve formal funding through granting agencies such as the National Park Service (NPS) through NAGPRA grants, the Institute of Museum of Library Services (IMLS), the Andrew Mellon Foundation, and the National Endowment of the Humanities (NEH). Many of these institutions would likely be interested in such initiatives, even though there has not been a widespread fundraising effort in this vein to my knowledge.

A key aspect of this database would be to outline risk assessments in a clear manner for tribal representatives to internalize when receiving their cultural heritage back. Sample tables would include a variety of studies on the hazards this object possesses when burying, wearing, or storing the item once returned. Rather than coerce Native American tribes to voice their private and oftentimes sacred uses of their cultural heritage, toxicologists will instead outline all fields for the tribe to review. Different museums can

then see a baseline of the threats posed to the human health from an initial analysis and can coordinate with the holding museum on how to move the object to a nearby toxicology laboratory or conservation testing facility. In the long-term, I plan to create an independent organization that could pay salaries for outreach coordinators to orchestrate treatment centers that could adequately examine the toxins on the object and assess possibilities for pesticide removal. While still in its starting phases, conservators have developed techniques to remove arsenic from organic objects; one instance includes Peter A. Reuben and his treatment using Surface Active Displacement Solutions (SADS) for Iroquois medicine masks. The database could have the procedures for these treatments in order to standardize methodologies for documenting new toxin levels and its relative success in pesticide removal. Furthermore, establishing a database could also track occurrences of pesticide types by collector so that museum staff could recommend testing protocols to find likely toxins and streamline testing and removal processes.

The ultimate goal of this database is to provide a forum for experts to outline recommended procedures for handling toxic heritage and possible ways to use an object and still be safe—or, at the minimum, have a strong idea of the risks involved in using that item. While it will not solve every problem or mitigate each item to a satisfactory level, it will at least provide possible steps to help Native American tribes use the items in accordance with the tribes' wishes. This is what NAGPRA did in the past, and this database opens up possibilities for this groundbreaking legislation to once again uphold human rights standards for Native American communities longing to obtain their items once again from the museum.

**Sample Database Tables:**

Mitigation Level After Treatment	Organization	General Risk Report	Burial Treatment Notes	Environmental Disposal Treatment Notes	Storage Treatment Notes	Adornment Treatment Notes

Figure 1: Sample table for medical toxicologists to utilize in determining latent hazards that the collections possess

Institution	Museum Naming System	Collector	Pesticides Present	Pesticide Level ( <u>Merckoquant</u> )	Pesticide Level (XRF) (mg/kg)

Figure 2: Sample table that museum staff can utilize to track toxin occurrences by collector and standardize detection strategies and adequate response measures

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