

CASE REPORT

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The Postmortem Fate of Pat Gregory: A Disinterred Native American

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ABSTRACT: In late June 1990, the Mono County Sheriff's Department in Bridgeport, CA contacted the Physical Anthropology Human Identification Laboratory (PAHIL) at California State University, Chico to seek assistance in the identification of a recently discovered skull.

To assist with possible identification, the cranium received a classic physical anthropological/morphological analysis to suggest the decedent's sex, age at death, ancestral affiliation, and uniqueness. It was concluded the cranium was that of an older male, and someone with mixed ancestry, probably Native American/White. Suggested uniquenesses were an eroded and greasy texture, with adhering white sand, evidence of healed antemortem nasal fractures, and a bifid left occipital condyle.

The cranium was confiscated from a man suspected of vandalizing a Native American cemetery just south of the community of Lee Vining. The cemetery was established in the mid-1800's by local Native American tribes. Although ownership of the land was disputed by the US Forest Service (the Inyo National Forest), and the Los Angeles Department of Water and Power (LADWP), county authorities claimed that because the incident involved the desecration of a cemetery and human remains, it was a legal issue, and therefore, the Sheriff's Department had jurisdiction over the case if not the land.

The suspect pled guilty to the possession of Native American remains but claimed not to have desecrated a grave. Over the next year and a half, members of the Native American community representing various tribes sought the return of the cranium, while also seeking assurance that it belonged to the vandalized grave. While county, US Forest Service, and LADWP officials continued to argue over whom had jurisdiction of the remains the superior court judge ordered the county to pay for any analysis necessary to determine if the cranium belonged to the decedent in question. This report addresses the conclusions of that analysis and the disposition of the case. Furthermore, the report addresses the forensic value to Native Americans of the continued study of a wide variety of human skeletal remains.

KEYWORDS: forensic science, forensic anthropology, cranial analysis, Native American Graves Protection and Repatriation Act (NAGPRA), physical anthropology, positive identification

During various conversations and debates among members representing the scientific and Native American communities, the pros and cons of the Native American Graves Protection and Repatriation Act (NAGPRA) have been addressed. While NAGPRA may be said to be a compromise between Native American and scientific interests, by mandating the return of the skeletal remains of some populations it has had, and will continue to have, a negative impact on science, and in this instance the applied science of forensic identification. On some occasions, the question of how Native Americans have benefited from the study of their skeletal remains has been posed. While it has been tempting to suggest that the question was rhetorical, various authors have taken it upon themselves to elaborate on some of the benefits of the continued access to a variety of skeletal remains, not only to Native Americans, but to humanity (1–5). Such benefits, for example, have included: an increased potential to better understand intertribal relationships in language, culture and biology (6), providing various real or potential medical benefits (7,8), revealing answers to various demographic and human evolutionary problems (9–11), as well as having led to the positive identification of individuals in forensic cases (12–14). While arguments may be mustered, or denied, for such benefits, the peace of mind, and the opportunity for a sense of closure provided to family members, friends, and loved ones due to the identification of a decedent is well recognized. Indeed, from the inception of the American Board of Forensic Anthropology the definition of its work has incorporated the statement that, “the identification of skeletal, badly decomposed, or otherwise unidentified human remains is important for both legal and *humanitarian* reasons” (emphasis added) (15).

The present report is offered not only as a case that resulted in the positive identification of a Native American cranium recovered from a forensic setting, but illustrates a further example of how the continued access and study of Native American skeletal remains can assist Native American families and communities.

Background

In late June 1990, the Mono County Sheriff's Department in Bridgeport, CA contacted the Physical Anthropology Human Identification Laboratory (PAHIL) at CSU, Chico to seek assistance in identifying a skull. The skull was brought to the attention of an intertribal group of Native Americans from the east and west slopes of the Sierra Nevada on June 10. The convened intertribal group had gathered to celebrate the centennial creation of Yosemite Park. Specifically, the group of Native Americans had gathered to retrace

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the forced migration of their ancestors through the region. As the trek was being organized, word spread that a local Native American cemetery had been vandalized and a skull removed (16). In addition to evidence of widespread digging at the cemetery, fresh tire tracks and a nearby eviscerated ewe were encountered (17). The timing of the event lead some to think the incident was politically motivated, and intended to intimidate the Native Americans, while the discovered ewe led others to believe the incident was indicative of cult activity.

The cemetery is located in central California just beyond the west shore of Mono Lake. The lake is at an elevation of 1949 m, on the opposite side of the Sierra Nevada from Yosemite National Park, and immediately east of the small community of Lee Vining. The cemetery has been used since the mid-1800's by local Native American tribes including the Paiute, Shoshoni, and Washoe as well as others.

Within two weeks of the desecration, the skull and suspicious artifacts (including the remnants of an old Winchester rifle) were recovered from the home of a 23-year-old male. The young man, a member of a prominent local family, was suspected of having vandalized the local cemetery (18).

The skull arrived at the PAHIL facility the following month, on July 24. The reason for the delay in sending the skull to the PAHIL facility was due to a dispute over ownership of the land and who would accept responsibility for reconciliation of the case. The US Forest Service, Inyo National Forest, and the Los Angeles Department of Water and Power (LADWP) claimed the cemetery was on land under their jurisdiction (19). The LADWP has managed the water flow into Mono Lake since 1941 in order to provide 15% of the water supply to Los Angeles County. County officials claimed

that because the alleged incident involved the desecration of a cemetery and the possession of human remains it was a legal issue, and therefore, the sheriff's department, rather than the Inyo Forest Service, the LADWP, or the banded Native Americans, had jurisdiction over the remains, if not the land.

Analysis

In order to assist in the possible identification of the person represented by the skull, the cranium received a classic physical anthropological/morphological analysis to suggest the decedent's sex, age at death, ancestral affiliation, and uniqueness.

The condition of the bone varied from fair to moderately poor (Figs. 1–3). While there was evidence for the postmortem loss of some anterior upper dentition, the skull was essentially edentulous with extensive alveolar resorption. It lacked the mandible, and was slightly greasy although portions were flaky. There were various postmortem fractures, and both parietals and the contiguous portions of the pterion region were abraded. Missing portions included parts of each eye orbit, a portion of each parietal and pterion area, as well as an area posterior and to the left of the foramen magnum. Much of the damage appeared to be the result of having been buried in gritty white sand, some of which was still adhering. The sand acted as an abrasive when the skull was handled.

In addition to a morphological assessment suggesting that the cranium was that of a male, a discriminant analysis yielded a value of 919.4 which was greater than the critical value of 891.12 necessary for suggesting the cranium was that of a male (20). More recently, TDM applied FORDISC 2.0 (21) to the eight cranial measurements employed by Giles and Elliot's discriminant



FIG. 1—Frontal view of the skull in Mono County Sheriff's Case No. 90-272.



FIG. 2—Left lateral view of the skull.

technique (20). Not surprisingly, again the skull was determined to be that of a male. In the later test, the skull was compared to 573 others (317 males, 256 females) within FORDISC 2.0, and produced a total 86.6% correct classification, and a posterior probability of 0.775.

Age was concluded to be 55 years or older based upon general appearance but most specifically the degree of suture closure (22). All but the squamosal sutures were closed endocranially, and many were closing ectocranially.

The combination of a morphological and a discriminant function analysis to suggest ancestral affiliation produced mixed results. Morphologically, the cranium appeared Native American with relatively wide, projecting zygomatics, each with a moderate posterior tubercle. In addition to round orbits, various nasal features including a tented nasal root, small nasal spine, and dull nasal sill accompanied by moderate midfacial prognathism and an elliptical palate suggested Native American status. A Giles and Elliot (23) discriminant analysis for race yielded a value for a Black near the confluence of Black, White, and Native American scores, respectively. As has been noted since the critique by Birkby (24), one should be suspicious of the Giles and Elliot discriminant technique for suggesting a decedent's race when Native American status is suspected. In large part, suspicion of a Native American result from the Giles and Elliot process is raised due to the limited Native American sample that was employed to develop the 1962 procedures. FORDISC 1.0 (25) with its larger and more appropriate sample populations was not available at the time of the original examination of the skull in this case. Therefore, population affiliation was based more upon the morphological features than the discriminant result, and it was concluded that the cranium was likely that of someone with mixed ancestry, probably Native

American/White or perhaps Hispanic. In a more recent discriminant function analysis employed by TDM, when FORDISC 2.0 was used to compare the cranium with 186 White, 131 Black, 47 Native American, and 37 Hispanic males, the result yielded a Hispanic status for the skull in question. Additionally, the resulting discriminant function correctly classified 77.8% of the 401 individuals examined, produced a posterior probability of 0.338, and a typicality probability of 0.491 for the skull belonging in the Hispanic category. When a similar test was performed that excluded the Hispanic option, the cranium was classified as a Native American with a total of 87.6% correct classification, a posterior probability of 0.513, and a 0.451 typicality value for the result.

Suggested uniquenesses were the eroded and greasy texture, which in combination with the adhering white sand suggested the skull had been buried. Additional uniquenesses included evidence of a healed antemortem fracture across the nasal bridge involving both nasal bones, and a bifid left occipital condyle. These features were suggested to offer perhaps the best opportunity for identification pending the availability of further appropriate information.

Discussion

The young suspect was arrested on July 18 and charged with violation of Section 5097.99 of the California Public Resources Code. The code addresses the felony offense of willfully, unlawfully, and knowingly possessing or obtaining Native American human remains from a grave or cairn. Although he originally claimed not to have been personally involved in desecrating the grave, the defendant later pled guilty to all charges. To the chagrin of the Native Americans, Sheriff's investigators claimed that the incident did not involve any "Satanic ritual" nor rumored "cultural dispute" be-



FIG. 3—Basilar view of the skull.

tween the suspect and the local tribes (19). On August 31, 1990 the defendant was sentenced to serve one year in the Mono County Jail, and four years probation with 100 hours of community service work at local cemeteries.

Within a week of providing the forensic anthropological report to the county sheriff/coroner, the Inyo National Forest's archeologist called the PAHIL representing the Native American community. The archaeologist wanted to know if it was possible to suggest that the skull came from a particular grave, and/or what would be needed to make such a determination. The archaeologist added that all the recovered postcranial remains had since been collected and reburied. The inquirer was told the remains would likely need to be re-exhumed in order to recover the first cervical vertebra. Assuming the vertebrae was present and in reasonably good condition, the fact of the bifid left occipital condyle, along with other first cervical features, could play an extremely important role in matching the cranium to the grave. The obvious value of noting the degree of joint congruence in resolving cases of commingling has been previously acknowledged (26), and the value of the cervical region, in particular, has been shown to be useful (27,28). Following the archaeologist's call, no one from the Inyo Forest Service, or any Native Americans, was heard from again.

Over the next year and a half, members of Native American

community sought the return of the cranium, while also seeking assurance that it belonged to the vandalized grave. County, US Forest Service, and LADWP officials continued to argue over whom had responsibility for the disposition of the remains, and who specifically should bear the cost of an analysis. While this was happening, the Mono County Superior Court Judge ordered the county to pay for any analysis necessary to determine if the cranium belonged to the decedent in question.

Arrangements were made for the authors to arrive at the cemetery on May 8, 1993. The sheriff's deputy was told that to save time he could arrange to have the grave uncovered, but to protect against possible tampering, he should take the necessary steps to ensure that the remains were not exposed until the authors arrived. Soon after the authors arrived and in the presence of four Native Americans representing the banded tribes, a blanket containing the reinterred skeletal remains was exposed and removed. One was struck by the white sandy soil found throughout the cemetery and encountered among the blanked remains, for it was reminiscent of that previously discovered on the skull. As one of the authors (TAM) searched for the first cervical vertebrae, a discussion took place among all those gathered and watching intently. Each osseous element was named, sided, described, and openly discussed. Upon discovering the appropriate vertebrae, the atlas and cranium



FIG. 4—Basilar view of the skull with recovered atlas articulated.



FIG. 5—Inverted/anterior view of the base of the skull with recovered atlas articulated.

were articulated (Figs. 4–6). Following a brief comparison of the first cervical with the base of the skull, TAM asked the Native Americans what they thought of the fit. One was heard to say that it appeared “they clicked into place as though they were meant to fit.” Recovered elements of the Winchester rifle were also found in the grave and were noticed to “fit” those critical portions discov-

ered in the defendant’s possession. Thus, after some discussion, further comparisons, and photographs to document the degree of congruency between the atlas and occipital condyles, everyone present agreed the skull and other materials belonged among the exhumed remains and the skull and all its accompanying cultural materials were reinterred.

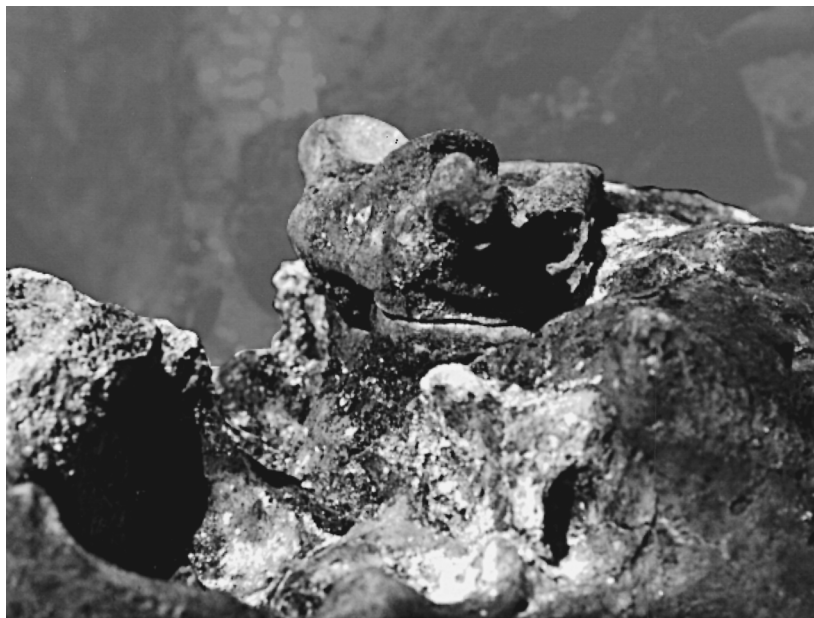


FIG. 6—*Inverted right lateral view of the base of the skull with recovered atlas articulated.*

The grave's marker was decorated with Native American icons and read:

Father
Pat Gregory
Born August 16, 1867
Lee Vining, California
Died September 4, 1930

As the four gathered Native Americans worked to rebury the remains, TAM turned to discuss the decedent with his great grandson. TAM told the young man that he thought his Great Grandfather would be proud of him. The great grandson identified himself and his ancestor as Paiute, and added that he believed his Great Grandfather would be proud of all the Native Americans who had fought together for the day the skull and burial artifacts would be returned. Given the nature of national and local events concerning repatriation at the time, and feelings among both Native Americans and anthropologists, TAM bit his tongue and thought to ask if the elder Mr. Gregory would be proud of the physical anthropologist as well. However, with discretion rather than valor, nothing further was said. While the anthropologists drove away they contemplated, that while it was unbeknownst to the Native Americans, access to various skeletal collections had played a valuable role, not only in the resolution of this case but, in the resolution of their cause and in achieving the peace of mind and sense of pride felt by all that day.

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