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ARCHAEOLOGICAL POLITICS AND PUBLIC INTEREST IN PALEOAMERICAN STUDIES: LESSONS FROM GORDON CREEK WOMAN AND KENNEWICK MAN

Douglas W. Owsley and Richard L. Jantz

This paper discusses the Kennewick lawsuit as it relates to the intended purposes of NAGPRA. It also reflects upon comments made by Swedlund and Anderson (1999) in a recent American Antiquity Forum, which conceptually linked two ancient skeletons, Gordon Creek Woman and Kennewick Man. Their assertions indicate the need for clarifying specific issues and events pertaining to the case. We comment on how times have changed with the passage of NAGPRA, how differently these two skeletons have been treated by the media and the scientists interested in them, and show how discussions of biological affiliation have relevance. There is still much to be learned from Kennewick Man and Gordon Creek Woman. But attempts to bring the concept of race or racial typing into the picture show misunderstanding regarding the use of morphological data in tracing population historical relationships, not to mention obfuscating the scientific issues they raise.

Este artículo discute la controversia de Kennewick y su relación con los objetivos propuestos por NAGPRA (Ley de Protección y Repatriación de Restos Nativo-americanos) y también los comentarios hechos por Swedlund y Anderson (1999) en un reciente foro de American Antiquity, los cuales están vinculados conceptualmente con dos antiguos esqueletos: la mujer de Gordon Creek y el hombre de Kennewick. Sus afirmaciones indican la necesidad de clarificar aspectos específicos y eventos pertenecientes al caso. Hablamos sobre cómo ha cambiado NAGPRA con el paso del tiempo, de cómo estos dos restos han sido tratados por los medios y los científicos interesados en ellos y de la relevancia que tienen las discusiones sobre afiliación biológica. Todavía queda mucho por aprender acerca del hombre de Kennewick y la mujer de Gordon Creek. Pero los esfuerzos para sacar a la luz el concepto de raza o tipo racial, muestran la falta de entendimiento respecto al uso de datos morfológicos para establecer las relaciones históricas de poblaciones.

The past year has seen a wide range of publications, including articles and books, on the skeleton known as Kennewick Man. All attempt, with varying degrees of success, to describe not only what the Kennewick Man means within the context of peopling of the Americas, but also the impact of this discovery on the field of anthropology. In one of these articles, Swedlund and Anderson (1999) ask why their analysis of the Gordon Creek remains has not received the same attention as Kennewick Man and other early Paleoamerican fossils. We examine the information known about Gordon Creek and Kennewick Man and respond to recurring misunderstandings about the events and issues of the Kennewick Man lawsuit within today's political environment.

Gordon Creek was excavated in 1963 and initial reports, identifying the skeleton as male, were published by Anderson (1966, 1967). A second analysis by a scientist who was not a member of the original team established the skeleton as female (Bretternitz et al. 1971). Although Gordon Creek's evaluators wanted "the most detailed, careful, and objective analysis possible" (Swedlund and Anderson 1999:574), investigators were limited at the time by sparse comparative data which today can be evaluated by computationally intensive processes using computers. They also were confined by a limited conceptual framework of ideas to test.

When Gordon Creek was discovered, a stable paradigm was in place asserting not only that Clovis people were the first in the Americas, but also

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that they came in a single migration by a relatively small band from Asia across the Bering land bridge. The description and analysis of Gordon Creek did nothing to challenge this dominant paradigm. Although the radiocarbon date of the remains was confirmed in 1987 at $9,400 \pm 120$ R.C.Y.B.P. (Swedlund and Anderson 1999), there was no recognition at the time that she might represent anyone other than an early ancestor of modern Native Americans.

Gordon Creek and Cranial Morphometrics

In their recent article, Swedlund and Anderson (1999:569) reintroduce Gordon Creek "into the context of recent discoveries, scientific debates, and political controversies," noting that their analysis (Breternitz et al. 1971) has been ignored in archaeological publications. They attribute this lack of attention to the fact that she was female, but another explanation is that their 1971 report provides little usable osteological data, a situation not improved by their update. For example, only eight cranial measurements are provided by Breternitz et al. (1971), a limited number in light of today's standards for morphometric analysis (Buikstra and Ubelaker 1994; Howells 1973, 1995; Jantz 1997). Our baseline protocol typically records 65 measurements for use in multivariate statistical analyses, and three-dimensional coordinates are now routinely collected by osteologists at the University of Tennessee and the Smithsonian's Office of Repatriation (e.g., McKewon 2000).

There is an additional explanation for Swedlund and Anderson's (1999) complaint about the lack of attention given to Gordon Creek Woman. Following reports on early discoveries during the first half of the twentieth century (e.g., Jenks 1936, 1937), and until the past decade, ancient American skeletons rarely received much attention in the professional literature. This circumstance is partly because the reigning paradigm, to which Swedlund and Anderson adhered, identified ancient Americans as being just like recent Native Americans and they were, therefore, not of unusual research interest (e.g., Hrdlička 1937; Owsley and Jantz 2002). It was not until Steele and Powell's studies (1992, 1994) that these early people, including Gordon Creek, were discussed much either singly or as a group. In part, the apparent lack of interest also stemmed from the small number of specimens and the attitude expressed in Breternitz et al. (1971) that there were

too few ancient American skeletons for meaningful comparisons to be made.

As described extensively elsewhere (Jantz and Owsley 1997; Lahr 1997; Owsley and Jantz 2001; Steele and Powell 1992), morphometric analysis of skeletal remains supports other evidence suggesting a more complex process for the peopling of the Americas that took place over a longer time period and involved more diverse groups than is suggested by the Bering land-bridge hypothesis and one founding population. The archeological record supports this notion of earlier habitation and holds tantalizing evidence pointing to multiple points of entry (Dixon 1999; Gruhn 1994). Lahr (1997:5) suggests that "it is likely to have involved higher levels of diversity than were present later, and consequently, high levels of extinction of some of the earlier groups." Lahr (1995) has also argued for the late-Pleistocene existence of a population with less-specialized cranial features and sundadonty inhabiting Southeast Asia to East Asia, including Japan: people likely to have provided early migrants to the New World.

To examine these new suggestions, morphometric analysis uses statistical methods to compare the metric data of an individual fossil to samples representing various populations, including recent American Indian groups. These methods show whether an individual falls within the range of variation of recent populations and, if so, to which group the specimen is most similar. This in turn indicates whether past remains and specific present populations may be linked by common ancestry and thus provides insights as to possible sources of Paleoamerican groups. As will be shown, even limited analysis using the measurements provided by Breternitz et al. (1971) for Gordon Creek demonstrates that today's methodology yields insights into population affinity, or at least emphasizes the need for further study.

The evidence is increasing for the presence of early people whose relationship with modern Indian tribes is uncertain. We have examined and measured more than 16 ancient skulls, and our comparative data base includes measurements from at least 4,500 individuals representing numerous populations, both historic and prehistoric. The data include standardized measurements of vault and facial heights, breadths, lengths, facial forwardness, and other dimensions. When comparing early skulls with available modern populations, we note that most of them fall far out-

Table 1. Mahalanobis Distances Showing Gordon Creek's Distance from Seven Regional Populations and Parametric and Nonparametric Probabilities.

Group	Mahalanobis D ²	Rank	Nonpar. P	Para. P
Europe	7.164	48/154	.3117	.3380
S.W. Pacific	9.437	7/146	.0479	.1800
Africa	10.157	21/149	.1409	.1446
E. Asia	12.655	11/130	.0846	.0691
Polynesia	15.848	4/165	.0242	.0222
Plains	20.483	2/134	.0149	.0046
Great Basin	20.999	1/26	.0385	.0477

side the normal range of recent population variation. More specifically, they especially fall outside the range of American Indian populations and are so different that it may be more correct to refer to them as Paleoamerican rather than Paleoindian, as many do.

The Spirit Cave Mummy is one of these ancient outliers. While negatively commenting on our quotations in the popular media's presentation of ancient remains (i.e., a statement given to *Science* news [Morell 1998:192] that Spirit Cave does "not look quite like what you think of when you think about a modern Indian"), Swedlund and Anderson (1999) were apparently unaware of our in-depth and extensive presentations of Spirit Cave and other ancient skeletons (Jantz and Owsley 1997; Owsley and Jantz 1999). This research, which has been cited (Steele and Powell 1999), addresses the very questions they raised concerning American Indian variability.

Although a full suite of cranial measurements is desirable for any analysis, we conducted a limited comparison of Gordon Creek to recent human populations included in Howells's world data base (described in Howells [1989]) and our data base (Jantz 1997), predominantly from the Plains but including crania from the Great Basin. We used six of the eight cranial measurements provided by Breternitz et al. (1971) for Gordon Creek: cranial length (173 mm) and breadth (138 mm), upper facial height (57 mm), nasal height (47 mm), and right orbital height (29 mm) and breadth (37 mm). Total facial height (108 mm) and auricular height (100 mm) differ in technique from measurements in the comparative set and were excluded from this analysis. Historic samples were pooled into seven regional groups, and for each group, Gordon Creek was included as if it were a member. Then a jackknife procedure was used, whereby each skull in turn was removed from the data set, its distance calculated, then replaced in the data set and another skull

removed, and so on until a distance for each skull, including Gordon Creek, was obtained. The distances were then arranged in increasing order and the rank of Gordon Creek noted. A nonparametric test of Gordon Creek's probability of belonging to each group can be obtained as rank/ n , where n = the number of crania in each sample, including Gordon Creek. A parametric F-test, given in Wilson (1981), yielding the probability (typicality probability) that the skull falls within the range of each modern population can also be obtained.

Table 1 presents Gordon Creek's Mahalanobis squared distance, rank, nonparametric probability and typicality probability, all of which describe its morphometric similarity to recent regional populations. Little morphometric resolution can be expected from six measurements, but Table 1 shows that Gordon Creek fits the pattern established for other ancient crania, namely more similar to European and Southern Asian populations (Steele and Powell 1994). Gordon Creek has its lowest distance from Europeans, followed closely by southwest Pacific peoples and Africans. Both typicality and nonparametric probabilities show that it falls rather easily within the range of variation of these populations. Gordon Creek's greatest distances are from the two Native American samples, and it is on the extreme margins of both groups. Of 134 Plains female crania, only one is more distinctive. Among 26 Great Basin crania, Gordon Creek is the most distinctive. Comprehensive measurement will refine this analysis, but even these limited data suggest that the Gordon Creek female does not fall within the range of variation of modern American Indian crania. The measurements of upper facial height, nasal height, and orbit height present a picture of an extremely short, compressed face, with low orbits. Upper facial height ranks in the lower tenth percentile of females in the Howells (1989) world data base; orbit height

in about the fourth percentile. Further study using additional measurements and reference samples, including comparison with other ancient crania, is clearly needed.

But such an exercise is meaningless when the conclusion that the skeleton is Native American “no matter what the morphology” is predetermined (Swedlund and Anderson 1999:573). Ideas that cranial morphology is infinitely plastic or that any local group contains nearly the total species variation (see also Goodman 1997) are uninformed by recent research. Attempts to discredit cranial morphology as a source of genetic information must confront evidence to the contrary. That evidence is so extensive that it cannot be reviewed here, but a few examples for further reference will suffice. Harding (1990:733) has demonstrated that cranial morphology in Europe exhibits spatial patterning similar to that seen for blood polymorphisms that “implies that patterns in cranial variables can be accounted for by the same, or similar, population processes as those inferred from patterns in blood polymorphism.” Relethford and Harpending (1994) have used cranial morphology to argue that long-term population size in Africa was greater than in other regions of the world. That same inference has been repeatedly reached using various genetic and DNA markers. The most parsimonious explanation is that cranial morphology reflects the same long-term processes seen in genetic markers. Steele and Powell (1999:118) have carefully considered this issue, concluding that there now exists the recognition “that multivariate analyses of the cranium and the dentition can be as accurate in reflecting genomic relationships as the analysis of blood and serum protein.”

In their own way, Swedlund and Anderson (1999:574) acknowledge the primacy of morphology in defining early populations by asking the question: “What if Gordon Creek Woman *did* actually meet Kennewick Man. . . . Would they really have looked so different?” That question can in fact be addressed (Jantz and Owsley 2001), and it is exceedingly important to do so if we are to understand the structure of these ancient American populations. It is now clear that most, if not all, early American crania are markedly different from recent American Indians (Chatters et al. 1999; Jantz and Owsley 1997; Neves and Blum 2000; Neves and Pucciarelli 1991; Owsley and Jantz 1999, 2001; Powell and Neves 1999; Steele and Powell 1992 1994). It is not yet clear

whether all, some, or none of these early people can be considered ancestors to contemporary Native Americans. To simply merge them with recent American Indians denies these early people their identities, identities that can be established in part through their morphology.

Alternatively, Swedlund and Anderson’s attribution may have been based on their demonstration that the Gordon Creek cranial shape is mesocranic (Bretznitz et al. 1971). If so, that seems like an acknowledgment that morphometrics is meaningful in some sense. While they claim that Gordon Creek’s mesocranic vault contradicts claims that early American crania are dolichocranic, they show a lack of curiosity about aspects of her morphology that differ markedly from recent American Indians and, indeed, from most recent human populations.

Such an approach allows them to easily dismiss the usefulness of cranial morphology for telling us anything about Gordon Creek’s identity, noting elsewhere that “she was a ‘Native American’ then, and in spite of claims to the contrary, her status has not changed in the interim, in our opinion” (Anderson et al. 1997:13). The attribution of Gordon Creek as “Native American” begs exactly the same question they asked of us (Swedlund and Anderson 1999:572); in essence, what is a “Native American?” How do they define this concept? Their approach seems to be based on an assessment of shared cultural identity because the body was covered with red ochre and placed in a flexed position with funerary objects. These features reflect “a set of cultural practices . . . that resonate strongly with the practices of some American Indian groups up into the postcontact period” (Swedlund and Anderson 1999:573). However, this perspective is simply a form of cultural typology that implies greater cultural stability over 9,400 years than we have ever claimed for cranial morphology. In our experience, having examined skeletal remains recovered from several thousand late Prehistoric-, Protohistoric-, and Historic-period burials from the western half of the United States, applications of red ochre are extremely uncommon. Even if these traits exhibit wide distribution in space and time, there is no way to know whether the role such generic features play in various groups’ cultures is similar over all time periods and regions. Nor does it support any inference that use of red ochre is limited to American Indians and their ancestors. As stated by Simic (2000:8) in a legal affidavit prepared

for the Kennewick case, but equally relevant to Gordon Creek,

it is highly unlikely that any modern Native American tribe can have a "shared group identity" with a population that lived 9,200 years ago. The folklore and oral traditions of an ethnic group express the unique cultural identity of that group. They represent how the group views the world and itself, and the group's key values and ideology, cherished norms of behavior, and social solidarity and/or group aspirations. The folklore and oral traditions of a group that lived 9,200 years ago will invariably be very different from those of any group living today. There is no documented case of any culture that has survived over a period of 9,200 years. It is so unlikely as to appear impossible due to the numerous forces engendering culture change among all humans.

In other words, the cultures of Kennewick Man and Gordon Creek Woman would be foreign to any historic Native American.

Perhaps Swedlund and Anderson were also influenced by the definition put forth by the National Park Service (NPS) that, for purposes of NAGPRA, any remains that predate European contact are Native American (National Park Service 2000a). Whatever bureaucratic purpose this definition may serve, it does not allow formulation of testable hypotheses concerning recent American Indian variability, origins, or evolutionary history.

With the single-migration paradigm now being challenged on several fronts, Gordon Creek and Kennewick become components of the challenge because their skeletons differ markedly from modern American Indian groups. We have shown that, based on the limited information available, Gordon Creek is more similar to European and Southern Asian populations. According to the government's own study of the Kennewick skeleton, Kennewick's cranial shape not only falls outside the range of all modern populations, but has its greatest morphometric similarity with certain Pacific populations such as the Ainu of Japan and Polynesian islanders (Powell and Rose 1999; see also Chatters et al. 1999).

The False Issue of Race

Much of Swedlund and Anderson's (1999) discussion expresses concern about racial attributions they think have been used to characterize Kennewick Man, as if this were the central concern of those involved with the case. They and others (e.g., Good-

man 1997) suggest that the very act of making morphometric and morphological comparisons is engaging in typological thinking common to the early part of the century. Such a characterization simply represents their attempt to deny that morphology has a role to play in evolutionary research (see Tattersall and Schwartz 1998). In applying morphometric approaches, we are following the lead of Howells (1989:1) in documenting specific differences among world populations, distinctions established "on an objective and systematic basis, not one of typology."

Furthermore, morphology has a role in NAGPRA. The concept of affiliation is the very heart of this legislation because the Native American tribes requested the return of *their* ancestors. Critical to this request is the implied ability to distinguish between American Indians and other groups who populated North America. The Norse visited Newfoundland and possibly Maine half a millennium before Columbus. The Chinese built railroads in the West, the Spanish explored the South, and the English colonized the East bringing with them African slaves. Biological evidence is specifically identified in the legislation as one form of information that can be used to address the question of tribal identification under NAGPRA. By using the craniometrics of American Indians and comparing them to unidentified skeletons, we can often estimate "biological affiliation" with high probability. These analyses can be and have been used to return Navaho remains to the Navaho, and Sioux remains to the Sioux (e.g., Jantz 1996; Owsley 2000). Much of our work during the past decade has involved assisting museums as well as federal and state agencies with NAGPRA compliance, which has facilitated the repatriation of large numbers of skeletons to specific tribal groups. Assessments have involved careful consideration of provenance and comparison to documented tribal reference samples developed through years of work in the Plains and Great Basin. This experience and the development of this reference database are the reasons we are frequently asked by the NPS and other federal agencies to provide forensic evaluations of human remains seized as part of NAGPRA and ARPA (Archeological Resources Protection Act) investigations. Three questions are generally asked by the requesting agency: are the remains American Indian, how old are they, and what is the probable tribal affiliation? During the course of our NAGPRA work, we also have identified many Euro-American

and African American remains that were being considered for, or already slated for, repatriation to tribal groups (e.g., Jantz and Owsley 1994; Owsley et al. 2000; Owsley 1999).

We do not see the need to bring the concept of race into our interpretive models and have not done so. The eight plaintiffs in the Kennewick lawsuit include those who support the concept of race, those who oppose it, and those who regard it as an unnecessary diversion from the real issues. Unfortunately, the issue of race is not unique to Kennewick Man; it is implicit in every skeletal examination performed by those who work within NAGPRA. It is NAGPRA that imposes a racial framework on museum and agency compliance because it requires that a skeleton be specifically classified as Native American and affiliated with a federally recognized tribe in order to qualify for repatriation. In this framework, then, is it not surprising that various phrases have all been used in the popular press to say that Kennewick Man does not fit the pattern characteristic of American Indians? In talking with the press, all of us have worked hard to maintain scientific integrity while presenting information in a "general public" format. We have never identified Kennewick Man as Caucasian. Preston (1997:2) affirms: "most of the anthropologists I interviewed strongly *objected* to the use of *Caucasian* in this context." As Jantz has said, "It is absurd to argue about whether . . . Kennewick Man is Caucasian. The answer to that question is not informative. But if we can ascertain that Kennewick is more similar to contemporary European populations than to any others, that tells us something" (Barié 2000). Yet, Swedlund and Anderson (1999:574) accuse us of making "such controversial and incendiary claims," when what we really claim is that we should be able to study the skeleton to make the best possible assessment of Kennewick Man.

Events Leading to the Kennewick Lawsuit

Swedlund and Anderson (1999:574) use a recurring, somewhat patronizing tone to encourage us all "to work towards an informed and cooperative relationship with American Indians . . . in the future." Mistaken assumptions and misrepresentations of our actions abound. The chronology of the Kennewick discovery and events that followed have been frequently misconstrued (Schneider 1999). For additional background on the circumstances that led to the filing of the Kennewick lawsuit, see Owsley and Jantz (2001).

To briefly summarize the early events, the skeleton was exposed by erosion in 1996 and immediately handed over to the local coroner who called in a local anthropologist, James Chatters, for what was thought at that time to be a potential forensic case. After one month of evaluation by Chatters, who had the remains radiocarbon-dated because of the lithic point in a hip bone, the Army Corps of Engineers (COE) took custody of the skeleton with the intention of giving it to one of five local tribes who claimed affiliation. The City of Kennewick was the first to announce the results of the preliminary investigation directed by the coroner's office at a press conference on August 27, 1996. Our requests for permission to study the skeleton (both written and by telephone to representatives of the COE and the Confederated Bands of the Umatilla Indian Reservation) were ignored, as has been documented in Court records. When the COE filed a public notice of intent to repatriate the skeleton, the only recourse was to initiate legal action. Our lawsuit stopped the skeleton from being reburied, but to date it remains inaccessible to independent scientists. In 1999 as a direct result of the suit, the COE was forced to allow a team of scientists hired by the government to examine Kennewick Man. Swedlund and Anderson (1999:571) complain about Kennewick: "To date we know of no published data or analyses. . . ." This lack of information is our concern as well and is exactly the situation we are trying to correct. A major contribution in this regard is Chatters's (2000) recent paper on the Kennewick skeleton in *American Antiquity*.

But more to the point, Swedlund and Anderson's advice on cooperation shows that these authors misunderstand our position. Our complaint is not with the American Indians. Our lawsuit focuses on the COE and its interpretation of NAGPRA regulations. It was the Corps' haste to repatriate and its lack of a reasoned and orderly protocol, combined with uncompromising resistance to scientific concerns, that led to the legal challenge of their decision. The court acknowledged these concerns as valid (*Bonnichsen v. U.S. Department of the Army et al.*, 969 F.Supp. 614 at 622 D.OR.):

Had the plaintiffs not filed this lawsuit when they did, it appears from the documents before this court that the remains would already have been turned over to the Umatilla tribe or perhaps to another Native American tribe.

In a subsequent opinion Magistrate Jelderks states

(*Bonnichsen v. U.S. Department of the Army et al.*, 969 F.Supp. 628 at 645 D.OR.):

Here, the agency clearly failed to consider all of the relevant factors or all aspects of the problem. The agency acted before it had all of the evidence or fully appreciated the scope of the problem. The agency did not fully consider or resolve certain difficult legal questions. The agency assumed facts that proved to be erroneous. The agency failed to articulate a satisfactory explanation for its action. By the agency's own admission, any decision in this matter was premature and ought to be set aside and the matter remanded to the agency for further consideration.

What Is the Public's Interest?

No one is more surprised than we eight plaintiffs to see the continuing impact of our lawsuit against the COE to obtain an opportunity to study the Kennewick Man skeleton. What we thought would be a local, legalistic discussion over the interpretation of NAGPRA and its regulations has mushroomed into a topic of national and international interest centering on the early peopling of the Americas. For better or worse, we have been interviewed, quoted and misquoted in the popular press, and videotaped for television programs and documentaries. While surprising, these events are at least understandable. The public has a legitimate interest in this unique discovery and scientists have a basic responsibility to educate the public. The bureaucratic stonewalling in this case, and the government's efforts to bar the free flow of information, has only increased the public's interest and curiosity. What the two of us do not understand, however, is the public response of some anthropologists to our case. We would never harbor the hope that all archaeologists and physical anthropologists would rush to join our suit; differences of opinion and the right to have them, after all, are the core values of our profession. Nevertheless, we find it ironic that some who think the suit ill-advised still use its publicity to further their own sociopolitical agendas and further argue that these agendas must be applied to soften rigorous scientific scrutiny and justify flagrant misuse of the law (e.g., Stapp and Longenecker 1999, 2000; Thomas 2000).

There have been benefits of NAGPRA to the communities of American Indians, science, and the public. Primarily, of course, remains are now being identified for possible reinterment. This reexamina-

tion of skeletons held by museums and institutions has led to more comprehensive integration of records that, in turn, promises to lead to a more complete understanding of the native way of life before and after contact with Europeans.

Originally NAGPRA was a compromise to resolve potentially conflicting interests including those of American Indians, museums and scientists, and the public. Now, nearly 10 years have passed, and the original intent is being replaced in some quarters by politically expedient decisions that favor some American Indian interests to the detriment of sound scientific inquiry and the public's right to information about the past. As a result, a number of ancient remains, like Minnesota Woman, Browns Valley, and Hourglass Cave already have been reburied, preventing future analyses using newly developed scientific techniques.

Unintended consequences of NAGPRA are escalating. Among them is the COE's decision that skeletal remains should be handed over without study to tribes that have no demonstrable cultural affiliation. The Corps' haste to transfer the Kennewick skeleton to the Umatilla tribe and its disregard for what could be learned through scientific study was the point at which we became involved in events. Our focus is not on NAGPRA itself, or on tribal efforts to reclaim rightful remains. Our focus is the failure of government regulators to follow the process defined in NAGPRA, which requires them to culturally affiliate human remains by a preponderance of the evidence before they are given to a federally recognized tribe. This lawsuit has demonstrated that the Department of the Interior (DOI), in the 10 years since NAGPRA has been law, still has not developed a clear and consistent process to expeditiously resolve the issues of unaffiliated remains.

The purpose of our lawsuit is to allow scientists from various disciplines to bring their expertise to a thorough examination of Kennewick Man and, by extension, to allow the study of other ancient skeletons. We maintain that, as Gordon Creek exemplifies, it is not sufficient for any one group of scientists to conduct a limited study of any skeleton, especially one as old as Kennewick Man. With the remains easily available for study, it took almost eight years and two teams of scientists for Gordon Creek to be evaluated carefully enough to determine its sex. We also firmly believe that peer review and independent verification of data are requirements of science. The

results of the limited studies conducted on the Kennewick skeleton in 1996 and 1999 remain unverified, and the NPS seems to expect the scientific community and the public to accept their interpretations as established fact. One of the shortcomings of the government's study was the lack of comparable craniometric data for prehistoric and historic groups from North America. Allowing the plaintiffs the opportunity to obtain the 3-D coordinates for the Kennewick skull would rectify this situation by allowing rigorous comparison with specific samples from California, the Northwest Coast, Southwest, Great Basin, and Plains.

Facts and Misrepresentation

Some critics complain that far too much attention has been given to the Kennewick Man—attention that would have been better spent elsewhere. They assert (or imply) that the plaintiffs are to blame because they brought a lawsuit. However, the view that the lawsuit is unfortunate leads one to conclude that the critics favor scientists turning their heads as agencies and museums misconstrue or completely disregard the law and its intent, and that it is somehow appropriate that agencies are not even apologetic that they have broken the law. What is unfortunate is that some scientists would place the blame for the controversy on those who would stand up for fair application of the law and resist agencies' misconduct. We have asked for the right to study, which is allowed under NAGPRA. The agencies have repeatedly denied every request since 1996, and have made clear their anti-science bias by effectively nullifying the compromise originally envisioned when drafting NAGPRA. The government's attitude is clearly stated in former Secretary of the Interior Babbitt's (2000) letter to the Secretary of the Army regarding the disposition of the Kennewick skeleton:

The Report of the House Committee on NAGPRA described the statute's purpose as 'to protect Native American burial sites and the removal of human remains, funeral objects, sacred objects, and objects of cultural patrimony on Federal, Indian and Native Hawaiian lands.' (H.R. Rep. 101-877 p. 8.) Section 12 of NAGPRA recognizes the unique legal relationship between the United States and Indian tribes. Given its purpose and this recognition, DOI construes the statute as Indian legislation. Therefore, any ambiguities in the language of the statute must be resolved liberally in favor of Indian interests.

Who, then, is actually responsible for the prolonged controversy and the resulting extensive cost both in tax dollars and divisiveness?

One of the concerns voiced by Swedlund and Anderson (1999:571) is that "Kennewick Man has been presented almost exclusively in nonscientific media. . . ." In this case, the lack of independent scientific information about the Kennewick Man is the direct result of government's refusal to allow anyone (except their own team) access to the skeleton, coupled with more than four years of agency delays in resolving the issues before the Court. The COE and the NPS, now represented by their fifth different trial attorney, released their determination of affiliation on September 25, 2000 (National Park Service 2000b). The Department of the Interior recommended that the Kennewick skeleton be repatriated without further study to the claiming tribes based on geographical proximity and oral tradition. This decision to affiliate the remains with contemporary groups ignores the physical anthropological findings and tremendous gaps in the archaeological record. This recommendation has been challenged in federal court by the plaintiffs.

Independent scientists have not been allowed to verify the work done by the team hired to conduct the government's limited investigations in 1999 and 2000. Further, the NPS has published their report but has not released critical information from CT scans, X-rays, and photographs that might be used to evaluate their conclusions. The critics have been surprisingly silent on the NPS reports and seem willing to accept their conclusions. One wonders why criticism is not directed at the NPS for cutting corners on the scientific process.

After the COE assumed custody, the public interest was high at precisely the time the flow of information stopped. Since then every NPS press conference and announcement has been a carefully orchestrated presentation of their accomplishments and findings. Without question, however, the steps taken in the conservation of the Kennewick skeleton, verification of the radiocarbon date, and the osteological and DNA investigations thus far completed have been necessitated by the demands of the lawsuit.

To fill the information void and to satisfy the public's curiosity about ancient New World skeletons, the public media brought stories of interest to the general public, whose reading and viewing choices have

greatly expanded since the 1960s, when Gordon Creek was discovered. Now, more people are interested in scientific topics and are more knowledgeable about ancient cultures. The discovery of a 9,500-year-old man inevitably stimulated wide interest. As Preston (1997:2), author of an article on Kennewick Man in the *New Yorker*, pointed out: "Kennewick is one of only half a dozen early skeletons known from North America, and . . . may fundamentally alter the course of biological anthropology in this country. If this doesn't make Kennewick important, I don't know what would." It is therefore understandable that various media should want to present Kennewick to their audiences. Reporters, writers, and producers came to us; we never contacted them.

Unfortunately, inaccuracies continue to appear in print even after four years. With increasing frequency, critics freely impugn motives without the benefit of interviewing those involved. For example, Swedlund and Anderson (1999) refer to "investigators," "researchers," and "plaintiffs" as if they were all the same people, rarely naming anyone specifically while voicing more opinion than fact about events. They imply inappropriate motivations (1999:572). For example, they state that the "researchers involved with Kennewick Man submitted bone samples to David Glenn Smith at the University of California Davis, apparently in *hopes* of finding mitochondrial DNA haplotypes that might suggest 'European' genes" (emphasis ours). This remark clearly steps beyond the bounds of legitimate scientific critique. The legal case had not been filed, or even contemplated, when Dr. Chatters submitted the sample for DNA testing. As Chatters has stated repeatedly and most recently (2000:292), "the remains appeared to resemble modern western Eurasians more than recent Amerinds and were associated with debris from a late nineteenth- to early twentieth-century homestead. However, a stone projectile point was embedded in the pelvis putting the individual's affiliation in doubt. A radiocarbon date was ordered . . . to solve the conundrum. . . ." He continues (2000:299), "As part of the Coroner's initial investigation, the fifth metacarpal of the left hand was submitted to the University of California, Riverside for ^{14}C dating." Dr. David Glenn Smith was willing and interested in conducting DNA tests on the remaining bone sample before the ^{14}C dating had even been completed. To imply that Drs. Chatters or Smith were motivated

by anything other than a desire to learn the truth is inappropriate. Swedlund and Anderson (1999) rely heavily on hearsay rather than interviewing those involved.

Swedlund and Anderson (1999:574) also state: "When data and archives on human history are lost, there is a loss to science and to the descendants/scientists/owners/curators of those archives. It is our contention that the . . . remains of Gordon Creek Woman provide an important body of evidence that is of value to anthropologists and American Indians alike." That is our position exactly. We are in court to try to achieve for Kennewick Man what Swedlund and Anderson want for Gordon Creek Woman: "we hope that opportunities for the future study of the Gordon Creek remains will continue to be available. Much can still be learned. . ." (p. 574).

We firmly believe that scientists have the right to study ancient remains. The fields of archaeology and anthropology will be seriously harmed by a lack of access to skeletons of the early occupiers of North America. The inability to study will be a disservice to both contemporary Americans and to those cultures from which the early peoples came (see Archambault 2000; Lindsay 2000). As Torvik (1999) of the *Seattle Post-Intelligencer* wrote, "this isn't about scientists, it's about us. The public has every right to know the truth, and the U.S. government has no brief to hide it."

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References Cited

- Anderson, D.
 1966 The Gordon Creek Burial. *Southwestern Lore* 32:19.
 1967 The Gordon Creek Burial. *Wyoming Archaeologist* 10:27-36.
- Anderson, D., A. Swedlund, and D. A. Breternitz
 1997 Let's Avoid PaleoRacial Anthropology. *Anthropology Newsletter* 38(9):13-14.
- Archambault, J.
 2000 Affidavit dated June 19, 2000 for the Kennewick case. Submitted U.S. Department of Justice, Environmental & Natural Resources Division, General Litigation Section, Washington, DC.
- Babbitt, B.
 2000 Letter from Secretary of the Interior to Secretary of the Army Louis Caldera Regarding Disposition of the Kennewick Human Remains. September 21, 2000. Available <http://www.cr.nps.gov/aad/kennewick/>.

- Barié, C. G.
2000 The First American. What do the experts say? Results of an unpublished questionnaire compiled during research for *Bild der Wissenschaft*.
- Breternitz, D.A., A.C. Swedlund, and D. C. Anderson
1971 An Early Burial from Gordon Creek, Colorado. *American Antiquity* 36:170–182.
- Buikstra J. E., and D. H. Ubelaker
1994 Standards for Data Collection from Human Skeletal Remains. *Arkansas Archaeological Survey Research Series*, vol. 44, edited by J. E. Buikstra and D. H. Ubelaker, pp. 1–202. Arkansas Archeological Survey Research Series, Fayetteville, Arkansas.
- Chatters, J. C.
2000 The Recovery and First Analysis of an Early Holocene Human Skeleton from Kennewick, Washington. *American Antiquity* 65:291–316.
- Chatters, J. C., W. A. Neves, and M. Blum
1999 The Kennewick Man: A First Multivariate Analysis. *Current Research in the Pleistocene* 16:87–90.
- Dixon, E. J.
1999 *Bones, Boats, & Bison*. University of New Mexico Press, Albuquerque.
- Goodman, A.
1997 Racializing Kennewick Man. *Anthropology Newsletter* 38(10):3.
- Gruhn, R.
1994 The Pacific Coast Route of Initial Entry: An Overview. In *Methodological Theory for Investigating the Peopling of the Americas*, edited by R. Bonnichsen, pp. 249–256. Center for the Study of the First Americans, Oregon State University, Corvallis.
- Harding, R. M.
1990 Modern European Cranial Variables and Blood Polymorphisms Show Comparable Spatial Patterns. *Human Biology* 62:733–745.
- Howells, W. W.
1973 *Cranial Variation in Man*. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 67. Harvard University, Cambridge.
1989 *Skull Shapes and the Map*. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 79. Harvard University, Cambridge.
1995 *Who's Who in Skulls*. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 82. Harvard University, Cambridge.
- Hrdlička, A.
1937 The Minnesota 'Man.' *American Journal of Physical Anthropology* 22:175–199.
- Jantz, R. L.
1996 *Metric Identification of Unknown Crania from Montana*. Department of Anthropology, University of Tennessee. Submitted to Department of Repatriation, National Museum of Natural History, Smithsonian Institution. Copies available from Department of Repatriation, National Museum of Natural History, Smithsonian Institution, Washington, D.C.
1997 Cranial, Postcranial and Discrete Trait Variation. In *Bioarcheology of the North Central United States*, vol. 49, edited by D. W. Owsley and J. C. Rose, pp. 240–247. Arkansas Archeological Survey Research Series, Fayetteville, Arkansas.
- Jantz, R. L., and D. W. Owsley
1994 White Traders in the Upper Missouri: Evidence from the Swan Creek Site. In *Skeletal Biology in the Great Plains: Migration, Warfare, Health and Subsistence*, edited by D. W. Owsley and R. L. Jantz, pp. 189–201. Smithsonian Institution Press, Washington, D.C.
1997 Pathology, Taphonomy and Cranial Morphometrics of the Spirit Cave Mummy. *Nevada Historical Society Quarterly* 40:62–84.
2001 Variation among Early North American Crania. *American Journal of Physical Anthropology* 114:146–155.
- Jenks, A. E.
1936 *Pleistocene Man in Minnesota: A Fossil Homo Sapiens*. University of Minnesota Press, Minneapolis.
1937 *Minnesota's Brown's Valley Man and Associated Burial Artifacts*. American Anthropological Association Memoir 49. Menasha, Wisconsin.
- Lahr, M. M.
1995 Patterns of Modern Human Diversification: Implications for Amerindian Origins. *Yearbook of Physical Anthropology* 38:163–198.
1997 History in the bones. *Evolutionary Anthropology* 6(1):2–6.
- Lindsay, H. K.
2000 Affidavit dated July 31, 2000 for the Kennewick case. Submitted U.S. Department of Justice, Environmental & Natural Resources Division, General Litigation Section, Washington, D.C.
- McKeown, A.
2000 Investigating Variation among Arikara Crania Using Geometric Morphometry. Unpublished Ph.D. dissertation. Department of Anthropology, University of Tennessee, Knoxville.
- Morell, V.
1998 Kennewick Man's Contemporaries. *Science* 280:191.
- National Park Service
2000a *Kennewick Man Over 9000 Years Old and Native American According to NAGPRA Law*. U.S. Department of the Interior, Archaeology and Ethnology Program, Press Release, 13 January 2000. Available http://www.cr.nps.gov/aad/kennewick/doi1_13_00.htm.
2000b *Interior Department Determines "Kennewick Man" Remains to go to Five Indian Tribes*. U.S. Department of the Interior, Archaeology and Ethnology Program, Press Release 25 September 2000. Available http://www.cr.nps.gov/aad/kennewick/doi9_25_00.htm.
- Neves, W. A., and M. Blum
2000 The Buhl Burial: A Comment on Green et al. *American Antiquity* 65:191–193.
- Neves, W. A., and H. M. Pucciarelli
1991 Morphological Affinities of the First Americans: An Exploratory Analysis Based on Early South American Human Remains. *Journal of Human Evolution* 21:261–273.
- Owsley, S., D. Owsley, and D. Mulhern
2000 Lost and Found in the Museum: Repatriation, Ancestry, Ethnicity, and History. *American Journal of Physical Anthropology*, Supplement 30:243.
- Owsley, D. W.
1999 From Jamestown to Kennewick: An Analogy Based on Early Americans. In *Who Were the First Americans*, edited by R. Bonnichsen, pp. 127–140. Center for the Study of the First Americans, Oregon State University, Corvallis.
2000 Forensic Case Report for SI-9613 (GLCA-95-3563). Report on file, Department of Anthropology, National Museum of Natural History, Smithsonian Institution, Washington, D.C.
- Owsley, D. W., and R. L. Jantz
1999 Databases for Paleoamerican Skeletal Biology Research. In *Who Were the First Americans*, edited by R. Bonnichsen, pp. 79–96. Center for the Study of the First Americans, Oregon State University, Corvallis.
2001 Kennewick Man: A Kin? Too Distant. In *Naming the Stones/Claiming the Bones*, edited by E. Barkan and R. Bush.

- Getty Research Institute's Issues and Debates series, in press.
- 2002 Nearsightedness in Paleoamerican Research: Historical Perspective and Contemporary Analysis. In *Paleoamerican Prehistory: Cultural and Biological Diversity of the First Americans*, edited by R. Bonnichsen, Center for the Study of the First Americans, Oregon State University, Corvallis, Oregon, in press.
- Powell, J. F., and W. A. Neves
1999 Craniofacial Morphology of the First Americans: Pattern and Process in the Peopling of the New World. *Yearbook of Physical Anthropology* 42:153–188.
- Powell, J. F., and J. C. Rose
1999 Chapter 2. Report on the Osteological Assessment of the "Kennewick Man" Skeleton (CENWW97.Kennewick). In *Report on the Nondestructive Examination, Description, and Analysis of the Human Remains from Columbia Park, Kennewick, Washington* [Oct. 1999]. National Park Service, <http://www.cr.nps.gov/aad/kennewick/>.
- Preston, D.
1997 Kennewick's Message of Unification. *Anthropology Newsletter* 38(9):2.
- Relethford, J. H., and H. C. Harpending
1994 Craniometric Variation, Genetic Theory, and Modern Human Origins. *American Journal of Physical Anthropology* 95:249–270.
- Schneider, A. L.
1999 Kennewick Man Myths. *Anthropology Newsletter* 40(4):21–22.
- Simic, A.
2000 Affidavit dated March 10, 2000 for the Kennewick case. Submitted to U.S. Department of Justice, Environmental & Natural Resources Division, General Litigation Section, Washington, D.C.
- Stapp, D. C., and J. G. Longenecker
1999 'The Times, They are A-Changin': Can Archaeologists and Native Americans Change with the Times? *SAA Bulletin* 18(2):18–20, 27.
- 2000 Dr. Lepper is Wrong. *SAA Bulletin* 18(4):22–24.
- Steele, D. G., and J. F. Powell
1992 Peopling of the Americas: Paleobiological Evidence. *Human Biology* 64:303–336.
- 1994 Paleobiological Evidence of the Peopling of the Americas: A Morphometric View. In *Method and Theory for Investigating the Peopling of the Americas*, edited by R. Bonnichsen and D. G. Steele, pp. 141–163. Center for the Study of the First Americans, Oregon State University, Corvallis.
- 1999 Peopling of the Americas: A Historical and Comparative Perspective. In *Who Were the First Americans*, edited by R. Bonnichsen, pp. 97–126. Center for the Study of the First Americans, Oregon State University, Corvallis.
- Swedlund, A., and D. Anderson
1999 Gordon Creek Women Meets Kennewick Man: New Interpretations and Protocols Regarding the Peopling of the Americas. *American Antiquity* 64:569–576.
- Tattersall, I., and J. H. Schwartz
1998 Morphology, Paleoanthropology, and Neanderthals. *Anatomical Record* 253:113–117.
- Thomas, D. H.
2000 *Skull Wars*. Basic Books, New York, NY.
- Torvik, S.
1999 Policy on Human Remains Hampers New Thinking on Archaeological Finds. *Seattle Post Intelligencer*. 5 December: Opinion page, <http://seattlepi.nwsourc.com/>.
- Wilson, S. R.
1981 On Comparing Fossil Specimens with Population Samples. *Journal of Human Evolution* 10:207–214.

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