

Nos. 02-35994 & 02-35996 (Companion Appeals)  
(Related Case DC 96-1481JE (D. Or.))

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IN THE UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT

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ROBSON BONNICHSEN, C. LORING BRACE, GEORGE W. GILL,  
C. VANCE HAYNES, RICHARD L. JANTZ, DOUGLAS W. OWSLEY,  
DENNIS J. STANFORD and D. GENTRY STEELE,  
Plaintiffs-Appellees,

v.

UNITED STATES OF AMERICA, et al.,  
Defendants-Appellants,

and

CONFEDERATED TRIBES OF THE COLVILLE RESERVATION,  
NEZ PERCE TRIBE, CONFEDERATED TRIBES OF THE  
UMATILLA INDIAN RESERVATION, CONFEDERATED TRIBES  
AND BANDS OF THE YAKAMA NATION,  
Defendants-Intervenors-Appellants.

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On appeal from the United States District Court  
for the District of Oregon

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BRIEF OF *AMICUS CURIAE*  
TEXAS HISTORICAL COMMISSION  
IN SUPPORT OF APPELLEES AND AFFIRMANCE

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## STATEMENT OF IDENTITY OF AMICUS CURIAE

Texas Historical Commission is an agency of the State of Texas that was created in 1953 as the Texas State Historical Survey Committee. The Executive Director of the Texas Historical Commission is designated as the State Historic Preservation Officer (SHPO) under the National Historic Preservation Act, 16 U.S.C. § 470 *et seq.*, and state law, TEX. GOV'T CODE § 442.004(k). In addition to the duties imposed on him by state law, the SHPO deals with questions related to NAGPRA and other federal laws on a constant basis because he has responsibility for ensuring that federal laws dealing with historical preservation are met in Texas. For example, one of these duties is reviewing archeological excavations on federal land located in Texas. Similarly, he is responsible for issuing permits for archaeological examinations on state and local governmental lands.

The Texas SHPO reviews more than 10,000 of these matters per year because at least 55 federal agencies are active in Texas. As a result, the Texas Historical Commission has technical expertise and practical experience that can assist the Court in resolving the issues presented by this appeal. In addition, there are at least two sites in Texas that could be affected by the outcome of this appeal and, due to the high volume of reviews conducted by the SHPO on the vast lands of Texas, similar concerns are likely to arise again in the future. If the decision below is reversed, the Executive

Director's job as SHPO will become much more difficult, if not impossible. Without the ability to study human remains discovered on Texas lands, the Executive Director will be unable to identify the groups, if any, with whom the Commission must consult about disposition of the remains. Further, without study of the remains, improper disposition is likely to occur. Finally, important and unique scientific information will be lost forever if this specific skeleton is not studied. For these reasons, the Texas Historical Commission asks that the Court affirm the decision of the district court.

## ARGUMENT

The decision below, which allows the study of the 9,000 year old Kennewick Man skeleton by some of the nation's most prestigious scientists, should be upheld for several reasons. First, a failure to affirm the decision below will negatively impact State Historical Preservation Officers around the country by interfering with their abilities to comply with the consultation duties imposed upon them by federal laws. Second, this rare and ancient skeleton is vitally important to scientists who are studying the mysteries of how the Americas were populated and the people who first populated them. Finally, these studies may reveal whether Kennewick Man is related to modern American Indian tribes, which could verify the legitimacy of tribal claims to the skeleton.

This brief is organized to address the two similar, but somewhat inconsistent, arguments of the Appellants. One group of the Appellants, the Confederated Tribes of the Colville Reservation, Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes and Bands of the Yakama Nation ("the Tribes"), is opposed to testing Kennewick Man and seeks immediate transfer of the skeleton to its custody. The other group of Appellants includes the United States Department of the Interior, the Army Corps of Engineers, and the Department of Justice ("the Government"), who have conducted limited and flawed tests on the skeleton, and now

urge this Court to remand the case to the agencies so they can dispose of it under 25 U.S.C. § 3002(b). As will be shown below, both approaches are unworkable.

**A. A failure to affirm will cause difficulty for entities like the Texas Historical Commission in carrying out their NHPA § 106 duties.**

The job of the Executive Director of the Texas Historical Commission as State Historic Preservation Officer (“SHPO”) will be much more difficult, if not impossible, if the decision below is reversed because the Commission will be unable to study ancient remains to even identify which tribes (or other groups) must be consulted in accordance with federal law. Under the argument urged by Appellants, study will be foreclosed at the first moment the SHPO has an inkling any discovered remains are pre-Columbian, because their position precludes any confirming tests. The resulting absence of information may also lead to improper disposition of remains to parties that are not related to the remains. *See, e.g.*, JEFF BENEDICT, NO BONE UNTURNED 184-87 (2003).

The Commission’s responsibility to consult with groups interested in archeological discoveries is not a minor concern; rather, it is one of the most important aspects of the cultural resources laws that the Commission addresses.<sup>1</sup> For example,

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<sup>1</sup> Laws regarding cultural resources and Native American concerns about actions on federal lands appear in at least ten different federal statutes, two executive orders, numerous agency regulations, memoranda, guidelines, bulletins, manuals, handbooks, and inter-agency programmatic agreements. Rogers, *supra*, at 113.

Section 106 of the National Historic Preservation Act (“NHPA”) outlines the consultation requirements that agencies like the Texas Historical Commission must meet when dealing with historic and traditional cultural properties. 16 U.S.C. § 470 *et seq.* Under Section 106, SHPOs such as the Executive Director of the Texas Historical Commission conduct formal consultations between agencies and interested tribes with regard to actions taken on public lands of importance to tribes. This consultation follows a sequential four-step<sup>2</sup> process that must be complete before a development permit is issued, federal funds are expended or ground disturbance activities are begun. Connie Rogers, *Native American Consultation and Resource Development on Federal Lands*, 31 COLO. LAW. 113, 115 (2002). Likewise, the National Environmental Policy Act (“NEPA”) requires consultation with tribes as part of the assessment of a proposed project’s impact on important historic and cultural aspects of our national heritage. 42 U.S.C. § 4331(b)(4); 40 C.F.R. § 1508.08(b). As a result of these consultation requirements, most agencies coordinate their NEPA and

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<sup>2</sup> The four phases are: (1) identifying cultural resources that may be “in the area of potential effect” of proposed activities; (2) determining whether the proposed undertaking will actually affect any identified cultural resources and, if so, whether those effects are “adverse”; (3) entering into discussions among the agency, affected tribes, SHPO or THPO, and the project’s proponents, which are designed to result in the Memorandum of Agreement (“MOA”) on mitigation steps to be taken by the agency or the project proponent to minimize adverse impacts on the affected cultural resources; and (4) submitting any resulting MOA to the Advisory Council for comment. *See* Advisory Council Regulations at 36 C.F.R. § 800 *et seq.* and National Register Bulletin No. 38 n. 25 (U.S. Park Service 1988).

NHPA reviews. *See, e.g.,* Rogers, *supra*, at 114. Given the close proximity between Indian reservations and public lands in the western United States, consultation with American Indians is one of the most common applications of NHPA's Section 106.

*Id.*

The Texas Historical Commission's concern is not a theoretical one. In fact, there are currently two controversies in Texas that could be directly affected by the outcome of this appeal. The first was a significant Texas archeological discovery made near Victoria, Texas, which uncovered human remains believed to be more than 7,000 years old. These remains were claimed by Native American tribes. While the Texas Historical Commission is hopeful that the issues may be resolved through a settlement in that case, if a settlement does not occur, the Commission will face a situation that is likely to be controlled by the outcome of this appeal. In the other instance, the United States Fish and Wildlife Service planned to construct a levy in Brazoria County, Texas. During the construction of the levy, the Service found human remains that are tentatively dated at more than 11,000 years old.<sup>3</sup> Currently, Native American tribes are being notified of the find and are expected to claim the remains. Without adequate testing in these cases, the Texas Historical Commission has no way

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<sup>3</sup> The construction took place without consultation with the SHPO in violation of the NHPA, but upon receipt of notice of the violation, the Fish and Wildlife Service is now attempting to comply with the legal requirements of the NHPA.

to determine if any Native American tribe is entitled to consultation, whether a tribe can establish a claim to these remains, and which, if any, groups must be consulted about the disposition of these remains.

The Texas Historical Commission produces more than 10,000 Section 106 reviews annually. Given this volume of reviews, issues similar to the two described above are likely to recur in Texas. An inability to determine which, if any, groups should be involved in Section 106 consultations would greatly hamper, if not preclude, the Commission's ability to process these reviews. An affirmance of the *Bonnichsen* decision below will permit testing of discovered remains and ensure that the mission of the Commission is not curtailed.

Further, a blanket prohibition on study of skeletons like Kennewick Man may result in erroneous surrender of human remains to groups with no relationships to the remains. For example, the Jamestown study illustrates the folly of the Appellants' position that Kennewick Man should be turned over to the Tribes without further study to assess whether there is a connection between the skeleton and the Tribes. *See, e.g.,* BENEDICT, *supra*, at 184-87. In the Jamestown situation, Dr. Owsley, one of the Appellee scientists, used current technology and databases to determine that five skeletons unearthed at Jamestown Colony were not American Indian, as they had been originally classified in the 1950s. *Id.* Instead, the skeletons were African. *Id.*

Valuable evidence of African-American history would have been lost if scientists were not allowed to study these skeletons, but were instead forced to presume the skeletons were American Indian. *Id.*; see [www.pbs.org/wgbh/nova/first/claimsowsl.html](http://www.pbs.org/wgbh/nova/first/claimsowsl.html); SER<sup>4</sup> 1368-69. A similar error may occur in the present case if the Appellants' arguments are adopted, because the Appellants failed to establish below that the Tribes have a superior right to Kennewick Man through genetic connections or affiliation. Giving the skeleton to the Tribes under these circumstances would frustrate the rights guaranteed to all Americans under the terms of the Archaeological Resource Protection Act (ARPA), which requires that the skeleton be made available to all Americans for educational and scientific purposes. See 16 U.S.C. § 470aa(b). In fact, under ARPA, Kennewick Man, as the property of all Americans, must be held in a repository that has adequate long-term curational capabilities, uses "professional museum and archival practices" and makes these items available for "scientific, educational and religious uses," including scientific analysis and research by professionals, like Appellees. 36 C.F.R. § 79.4, 79.5, 79.9 and 79.10 (2002).

Thus, this Court should reject Appellants' arguments that Kennewick Man's skeleton must be presumed to be American Indian. Appellants' position, if adopted,

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<sup>4</sup> The Texas Historical Commission will cite to both the Appellees' Supplemental Excerpt of Record ("SER") and the Department of Interior's Administrative Record ("DOI").

would make the jobs of SHPOs more difficult and could result in improper disposition of remains to parties that are not related to the remains.

**B. The Kennewick Man skeleton is important to the scientific theories about how the Americas were populated.**

The Appellants' attempt to prevent testing should also be rejected because Kennewick Man potentially offers scientists significant new evidence by which they can test the "Clovis First" Theory<sup>5</sup> about how the Americas were populated. Under this theory, which has prevailed for the last 30-40 years, it is proposed that Siberian hunters first entered the Americas in the Ice Age by crossing an ice bridge linking Siberia and North America. John W. Ragsdale, Jr., *Some Philosophical, Political and Legal Implications of American Archeological and Anthropological Theory*, 70 UMKC L. REV. 1, 41 (2001). Under this theory, the hunters then descended into what is now the central United States *via* an ice-free corridor east of the Rockies between two massive glaciers. *See, e.g.*, Ragsdale, *supra*, at 41; E. JAMES DIXON, BONES, BOATS & BISON: ARCHEOLOGY AND THE FIRST COLONIZATION OF WESTERN NORTH AMERICA 244-47 (1999). These travelers are then believed to have rapidly occupied

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<sup>5</sup> The hallmarks of these peoples are long, fluted stone projectiles named "Clovis Points" for the site of their first discovery in 1932 near Clovis, New Mexico. Ragsdale, *supra*, at 41; Robson Bonnichsen & Alan Schneider, *Roots*, THE SCIENCES, May/June 1993, at 27. The Clovis data overturned a prior theory which stated that the first Americans arrived on this continent only 3,000 years ago. Bonnichsen & Schneider, *supra*, at 28.

and populated the North and South American continents. Ragsdale, *supra*, at 41; BENEDICT, *supra*, at 227-28; JAMES CHATTERS, ANCIENT ENCOUNTERS: KENNEWICK MAN AND THE FIRST AMERICANS 245-46 (2001). Under the Clovis First theory, these explorers are also believed to have exterminated most of the indigenous species of large mammals in the Americas. Ragsdale, *supra*, at 41.

The hallmark lithic objects (*e.g.*, arrowheads) related to these peoples, called Clovis Points, have been found across the Americas. To adherents of the Clovis First Theory, this indicates the absence of any previous human occupation in the Americas. *See, e.g.*, Ragsdale, *supra*, at 41; CHATTERS, *supra*, at 246. Nevertheless, scientists have identified many weaknesses in the Clovis First Theory. Ragsdale, *supra*, at 41. The basis for the scientific criticism of the Clovis First Theory is the growing amount of evidence of pre-Clovis sites and artifacts in the Americas. One of the first discoveries causing scientists to question the Clovis First Theory was the Monte Verde II site in Southern Chile, which has been carbon-dated to precede the earliest known Clovis Points by more than a thousand years.<sup>6</sup> *Id.*; Bonnichsen & Schneider, *supra*, at 28. Thus, the Clovis First Theory fails to explain the presence of people south of the

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<sup>6</sup> Important pre-Clovis data was also found in the Meadowcroft Rockshelter in Pennsylvania, the Cactus Hill site in Virginia, the La Sena site in Nebraska, the Monte Verde I site in Chile, and the El Jobo site in Venezuela. *See* [www.pbs.org/wgbh/nova/first/claimbonn.html](http://www.pbs.org/wgbh/nova/first/claimbonn.html).

Bering Strait well prior to the date of Clovis. Bonnicksen & Schneider, *supra*, at 28; Ragsdale, *supra*, at 41.

The discovery of Kennewick Man brings new and rare evidence by which scientists may test whether the makers of the Clovis artifacts were the first people to populate the Americas or whether another group or groups preceded Clovis. The discovery and study of Kennewick Man may support a new population model, in which immigrants unrelated to Clovis arrived in the Americas thousands of years earlier than scientists previously believed possible. Ragsdale, *supra*, at 44. Under this developing theory, early colonists ancestral to Kennewick Man may have entered North America prior to Clovis by following the coasts of the massive North American Ice Age glaciers in boats, eating fish and sea mammals, rather than by way of the ice bridge. *Id.*; DIXON, *supra*, at 247-50.

Currently, testing this new theory is difficult because the routes that those coastal migrants would have taken to populate the Americas now lie under ocean waters, due to the post-Ice Age glacier melt. Difficulty in proving this new population theory is also exacerbated because there are very few sites of the appropriate age offering scientists the opportunity to further explore this theory. *See* Ragsdale, *supra*, at 44. Testing these theories is also hampered by the rarity of direct human evidence, as opposed to indirect evidence consisting of things like artifacts. DOI 01560, 01621-

01622; SER 1353, 1403, 1426-27. As the record shows, fewer than twelve human crania in the United States have been securely dated at more than 8,000 years. Kennewick Man therefore represents a significant percentage of the direct evidence of the earliest Americans. DOI 01560, 01622; SER 1353, 1373. Of these, Kennewick Man is particularly important because it displays one of the most complete adult crania ever discovered. In fact, most of the other extant skeletons are incomplete, damaged or sub-adult and only seven of them contain complete dentition. DOI 01622; SER 1353, 1426. Further, existing collections contain few substantially complete skeletons of this age or older. Even so, none of these collections contains an intact skeleton from the Pacific Northwest, which some scientists believe was close to the route early coastal travelers would have taken as they populated the Americas. DOI 01560, 01622; SER 1353; [www.pbs.org/wgbh/nova/first/claim/brac.html](http://www.pbs.org/wgbh/nova/first/claim/brac.html). As a result, Kennewick Man provides vital and unique evidence to test both the Clovis First and the newer theories on how the Americas were populated. BENEDICT, *supra*, at 190-91. Therefore, whether his features are like those of modern American Indians or not,<sup>7</sup> Kennewick Man has the potential to teach scientists about the range of physical

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<sup>7</sup> Paleo-American cranial forms, like Kennewick Man's, that are older than 8,000 years have distinctive features that share more similarities with Pacific Rim and Southern Asian populations rather than with either modern Northeast Asian (as one might expect from the Clovis First Theory) or modern Native American populations, suggesting discretely different ancestry for modern American Indian tribes and Kennewick Man. *See, e.g.*, DOI 00884.

variation among the earliest Americans and their biological origins and affinities. BENEDICT, *supra*, at 189-91.

Without studying ancient skeletal remains when these rare opportunities arise, scientists will never be able to understand the processes that lead to the peopling of the Americas and, perhaps, to the development of modern Native American peoples. Further, they will not have information about ancient lifestyles, activity patterns, diseases, demography, diet and environmental conditions that could benefit modern man. DOI 01539, 01554, 01573, 0156-561, 01622; SER 1360, 1373-74, 1380, 1382, 1428-29, 1567.

Additionally, data that is properly obtained and recorded now from Kennewick Man can become more important over time due to new developments in scientific techniques, concepts, and technology. *See, e.g.*, BENEDICT, *supra*, at 185. It will also allow other scientists to assess the accuracy of Appellees' studies. DOI 01622; SER 1382, 1429. Therefore, it is important that the skeleton be studied, documented and recorded as thoroughly as possible for current and future research.

Appellees' studies will also be crucial to determining whether the Kennewick Man skeleton is Native American within the meaning of NAGPRA and, if so, whether it bears a shared group identity with any present day tribe because these types of relationships cannot simply be assumed. DOI 01620; SER 1423-24. These

relationships must be determined through careful scientific study like that proposed by the Appellees and ordered by the trial court. DOI 01620; SER 1367-68, 1380-81, 1392. Thus, SHPOs like the Texas Historical Commission need the tools of scientific study to further the purposes of NAGPRA. Any attempt to prevent such testing is self-defeating.

The studies that the Appellees plan to conduct to discover this important information fall into the following categories:

**1) Morphometric<sup>8</sup> cranial and post-cranial measurements** that will compare Kennewick Man with other populations, pre-historic and modern, through databases containing measurements of thousands of individuals, DOI 01620;

**2) Dental Characteristics Studies** that will assess biological relationship(s) by comparing Kennewick Man's measurements and discrete traits to those of other populations, DOI 01620;

**3) DNA Studies** in which Kennewick Man's gene sequences will be compared to other populations to determine the degree of similarities or dissimilarities with those populations to permit an assessment of genetic relationships to various modern populations, DOI 01620;

**4) Diet Analysis** to re-construct the foods that made up Kennewick Man's normal diet to permit inferences concerning where he obtained his food sources which in turn may reveal whether Kennewick Man came from another region, whether he crossed an ice bridge, and whether his diet was consistent with the newer theories of population requiring that he subsist on fish, DOI 01620;

**5) Taphonomic Studies** of the processes, such as burial, decay and preservation, that affect remains as they fossilize to allow the scientists to

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<sup>8</sup> Point to point coordinates that allow comparison and reconstruction in three dimensions.

determine whether other preserved bones or artifacts exist at this site and to further allow the scientists to place these remains in their proper historical and evidentiary context, SER 401R;

**6) Study of the Projectile found in the skeleton's hip** to determine the geological source of the projectile, to learn about its construction, to discover its age, and to gain clues about who made it and how it became lodged in the skeleton's hip, SER 1816; SER 1846b.

Thus, the trial court correctly allowed the scientists to study the skeleton because it sets a workable precedent for SHPOs around the country, allows for proper disposition of remains, and provides important information to scientists about how the Americas were populated. As a result, the Tribes' attempt to ban all testing should be rebuffed.

**C. Additional studies are needed because the government's studies were incorrectly done, require confirmation and/or were not as complete as the studies ordered by the trial court.**

Even considering the studies already performed on Kennewick Man, the additional studies should be affirmed. The ordered tests are only minimally invasive.<sup>9</sup>

In fact, most of them consist solely of measurements and observations that do not injure the skeleton in any way. DOI 01621; SER 1355, 1362, 1365, 1375, 1381, 1387.

Further, the scientists who plan to conduct the additional studies are respectful of

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<sup>9</sup> Only three of the tests and studies proposed by Plaintiffs involve any loss of skeletal matter. The DNA analysis, which requires merely two grams of bone (approximately .07 ounce), is the only test that can directly measure Kennewick Man's genetic relationship, if any, to modern Native Americans. DOI 01621; SER 1402. The radiocarbon and stable isotope tests, also requiring two grams of bones, are critical for verifying the skeleton's geologic age and for nutritional analyses. DOI 01621; SER 1361, 1365-6.

human skeletal remains and follow the appropriate standards for data collection from human skeletal remains. *See, e.g.,* [www.pbs.org/wgbh/nova/first/claimhayn.html](http://www.pbs.org/wgbh/nova/first/claimhayn.html); [www.pbs.org/wgbh/nova/first/claimsta.html](http://www.pbs.org/wgbh/nova/first/claimsta.html); Arkansas Archeological Survey Research Series No. 44, *Standards for Data Collection from Human Skeletal Remains: Proceedings of a Seminar at the Field Museum of Natural History* (1994).

These minimally invasive tests are necessitated by the serious problems with the government's studies. For example, Dr. Bonnicksen has examined the CT scan images of the Kennewick skeleton and expressed concerns about the government's conclusions derived from them. Based on his review of these images, Bonnicksen believes that some of the government's interpretations about the skeleton and its taphonomic history are incorrect. SER 1814b. His concerns cannot be resolved without further examination of the skeleton. SER 1814b. One of the conclusions that Bonnicksen questions is the opinion that the projectile point in the skeleton's hip is a Cascade point. SER 1846b. The CT scan images that Bonnicksen examined lack sufficient detail to reach a final conclusion about the projectile point's original shape or whether it is from the Cascade period. Only an examination of the skeleton and taking new high resolution images can resolve these issues. SER 155-156.

Similarly, Dr. Owsley's Affidavit also demonstrates that the government's studies were incomplete, improper and/or require confirmation. *See, e.g.*, SER 162-168. His numerous criticisms include the following:

- The Projectile's Entry Should Be Confirmed. The skeleton contains a lithic point in its hip bone. The government's experts concluded that the projectile point entered Kennewick Man's hip from the rear, a conclusion with which Owsley disagrees; however, the existing image record is insufficient to fully resolve the question. In order to resolve the question of the projectile point's direction of entry, the pelvic bone must be reconstructed, re-evaluated, and new images taken of it. SER 1816.
- The Sediment Should Be Examined. It appears, from the government's 1998 CT scan images, that the cranium once contained distinct layers or laminations of sediment. If any of those sediments are still intact, they should be carefully examined. The CT scan images made for the Benton County coroner in 1996 should also be examined to determine the original condition of the sediments inside the cranium before they were disturbed by the government. This type of investigation could provide information on the post-mortem positioning of the cranium in the ground and the various processes that affected the cranium after death. It may also be

possible to radiocarbon date and analyze these sediments to help confirm the skeleton's geologic age and stratigraphic context. SER 1816-17.

- The Teeth And Bite Should Be Checked. The existing image record does not clearly document the occlusal (chewing) surfaces of the dentition. The images of the teeth that do exist suggest a pronounced gradient of anterior to posterior (front to back) differential wear. They also suggest the presence of lingual (tongue side) wear on the mandibular incisors. To understand the cause and significance of these wear patterns, it is necessary to examine the upper and lower teeth while they are in contact. Such an evaluation will require access to the skeleton and reconstruction of the lower part of the cranium. SER 1817.
- The Face Alignment Should Be Confirmed. The orientation of the skeleton's face may have been off-set when the cranium was reassembled and measured for the government's first phase studies. If the face was incorrectly aligned, the measurements taken at that time and any conclusions drawn from that analysis could have been negatively affected. Reconstruction and re-measurement of the skull is therefore needed to resolve this issue. SER 1817.

- The Cranial Spacing Should Be Verified. Spaces were left between several bone fragments when the cranium was reassembled, which may have been due, in part, to post-mortem bone distortion and losses of intervening bone material. If these spaces are not carefully evaluated, these gaps are large enough to affect the accuracy of some measurements taken of the skull. Thus, the cranium must be reconstructed and re-measured to determine whether these gaps are anatomically appropriate and, if they are not, what the effect on the prior measurements was. SER 1817.
- The Cranial Distortion Should Be Evaluated. One side of the cranium appears to be slightly off-set in relation to the other side. The distortion could be the result of post-depositional processes. The reconstruction and re-measurement of the cranium is also needed so that the degree of distortion can be determined and factored into any analyses made of the skull. SER 1817-18.
- The Ribs Should Be Studied. Kennewick Man's ribs were re-associated incorrectly by the government and require re-study and new photography. The ribs, when properly associated, can provide scientists with important

information about ante-mortem injuries and the post-mortem positioning of the body during and following decomposition. SER 1818.

- The Measurements Should Be Confirmed. The government's measurements require confirmation. For example, the government's investigator, Dr. Powell, reported that the interorbital breadth of the Kennewick Man skeleton (*i.e.*, the distance between the eye orbits measured between two specific landmarks) was 17 millimeters. These measurements differ from those made on the copy of the cast of the Kennewick Man skull showing a distance of 22 millimeters. Further, Powell's measurements are unusually small for an Early New World individual. When measuring, the government may have also incorrectly located bergma (another cranial landmark), which probably affected other measurements. These discrepancies must be resolved since differences of this kind could significantly effect conclusions drawn from measurements of the Kennewick Man skeleton. SER 1818-1819.
- The Photographs Should Be Retaken. The overall quality of the image record is poor. Most of the existing photographs are incorrectly positioned and do not provide sufficient detail to adequately document texture, condition and morphological features of the bones. An accurate

photographic record is important to future investigators so that they can properly assess the accuracy of the observations and measurements of earlier observers. A good image record will also provide base-line documentation needed for assessing future condition changes in the collection and will help to reduce any physical handling of the bones if questions arise concerning the identification or evaluation of particular items. SER 1819-20.

- The Skull Should Be Reassembled. There appear to be no images of the skull in a completely reassembled state (*i.e.*, of the cranium with the mandible in place). The skull is the single most important element of the skeleton; thus, it should be thoroughly documented, so later observers can assess whether the skull was correctly assembled when it was measured and whether the resulting measurements are reliable. SER 1819-20.
- The Cranium Should Be Rephotographed. The existing photographs of the cranium were not taken in the proper anatomical position (*e.g.*, the Frankfort Horizontal) and do not illustrate the skull in all appropriate positions (*i.e.*, frontal, left lateral, right lateral, posterior, superior and inferior). Because of the poor positioning in the photographs, many photographs of the cranium do not include the superior vault or the

maxillae in the images. The existing views of the occlusal surfaces of the teeth were poorly positioned and consequently do not adequately depict the chewing planes of the teeth. SER 1819-20. Similarly, the stereozoom photographs taken in April 2000 do not identify the fragments shown. SER 1820.

- The Remains Should Be X-Rayed. The x-rays taken in 1995 are flawed. They appear to have been taken with double screen cassettes (*i.e.*, with two intensifying screens) that are commonly used in hospital settings to minimize the impact of x-rays on living tissue. This technique should not be used for the investigation of archeological collections since they eliminate or obscure many of the fine structural details of the bone. Even though the different pieces of the Kennewick Man skeleton are numbered, the images are not labeled to identify the various fragments that were x-rayed and the x-ray logs Dr. Owsley has seen contain only generalized descriptions. Because the orientation and anatomical context of these items is unknown, many of the x-rayed fragments cannot be identified now with confidence. The x-rays of the cranium are over-exposed and have marginal scientific value. The x-rays of the long bones (femur, tibia, humerus) are somewhat clearer but do not provide sufficient detail to

permit reliable assessment of important questions such as possible pathological conditions (*e.g.*, transverse lines of arrested growth). The orientation of the hip fragment containing the projectile point is difficult to assess. Only the general shape of the projectile point can be discerned in these x-rays. Thus, the x-rays need to be re-taken. SER 1820.

- The Government Used The Wrong Bone. The government should not have used the left tibia for C-14 and DNA testing. This tibia was the only complete one in this collection. Data from the bone could have provided important information about robusticity, activity patterns, and early population variability. Data have now been lost because photographs of the tibia were not taken before the carbon 14 and DNA samples were removed from the proximal end of it. The area where the tibia fragment was sectioned has a nutrient foramen (*i.e.*, a vascular opening in the bone), which is an important landmark for measurement. Sectioning at this location prevents collecting or verifying specific measurements taken at that landmark. The government should have known that the tibia was not the best candidate for providing C-14 and DNA samples because the tibia's cortex is thinner and less dense at this location than the incomplete femur fragments in the collection. It is usually best to use dense bone or

teeth for DNA testing. Even if this location on the tibia was the best location for sampling, it would have been preferable to use the other, incomplete, tibia bone for sampling rather than damage a complete bone. SER 1820-21.

As a result of these problems, the tests ordered by the trial court are needed to properly assess this skeleton and verify the government's studies and the conclusions derived from them. If the government's position on appeal was adopted, the scientific community would be left with only inadequate studies for future use.

**D. The Appellees have standing.**

Finally, the Texas Historical Commission urges this court to hold that these eminent scientists have constitutional and prudential standing to bring their claim. Appellees have concrete plans for study that are "likely" to be granted, and the "zone of interests" test does not apply.

**1. The Appellees' Injuries Are Redressable**

Appellants erroneously argue that the Appellees' claim fails the "redressability" requirement of the constitutional standing test because it is not "likely" that the scientists could receive the ultimate relief they sought *via* this suit. *See Appellant Tribes' Brief* at 18; *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1991) ("it must be 'likely,' as opposed to merely speculative, that the injury will be "redressed by a

favorable decision”). To meet the redressability requirement, the scientists must show that the trial court’s decision (that NAGPRA does not apply to this case) would then lead to the studies the scientists requested. They have more than met this requirement.

Where a plaintiff asks a court to remove an impediment that prevents a fair chance to seek ultimate relief, the plaintiff has standing. This was clearly demonstrated in *Village of Arlington Heights v. Metropolitan Housing Dev. Co.*, 429 U.S. 252 (1977), where the plaintiffs sought a zoning change that would permit the construction of a low-income housing project. Though the Court could not guarantee that the housing project would actually be built, an injunction would nevertheless remove the “absolute barrier to constructing the housing.” *Id.* at 261. Thus, the plaintiffs had standing. Similarly, in the famous *Regents of the University of California v. Bakke*, 438 U.S. 265 (1978), the Supreme Court held that the district court could remove the impediment that kept Bakke from competing equally for all one hundred student positions in the medical school; therefore, Bakke had standing to assert his claim. *See also Watt v. Energy Action Educational Foundation*, 454 U.S. 151 (1981) (plaintiff had standing even though the desired relief was merely “experimentation” by the Secretary of the Interior). The same principle applies here. The Secretary of the Interior’s erroneous interpretation of NAGPRA barred the scientists’ attempts to study

Kennewick Man, and the trial court had the ability to correct that error. Hence, Appellees have standing.

Where a court removes an impediment to the ultimate relief instead of directly awarding it, a complainant still must prove that it is “likely” (as opposed to “speculative”) that he will be able to obtain that ultimate relief. *Village of Arlington Heights*, 429 U.S. at 261-62. Appellees easily met this burden when they submitted detailed plans for scientific study of Kennewick Man along with evidence that they are normally granted permission to conduct these types of studies.<sup>10</sup> Thus, the Appellees claims were not like the mere “hopes” used by the plaintiffs to attempt to prove standing in *Lujan*, 504 U.S. at 560-61. Instead, the Appellees had firm, enumerated plans that were ready to be implemented and likely to be granted. The trial court in this case properly held that the scientists have constitutional standing to bring suit.

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<sup>10</sup> In fact, the court below noted, Appellees “have identified a particular set of remains they desire to study, they have presented a concrete plan for conducting those studies, and they are ready, willing and able to commence those tests immediately.” *Bonnichsen v. United States Dept. of the Army*, 969 F. Supp. 614, 634 (D. Or. 1997). The evidence to support this conclusion was the fact that the scientists submitted a detailed study proposal and filed affidavits attesting that their requests for permission to inspect similar remains are routinely granted. *Id.* at 635. The court also noted that plaintiff Douglas W. Owsley was scheduled to have received the remains of Kennewick Man at the Smithsonian Institution before they were intercepted by the Army Corps of Engineers, and thus “plaintiff Owsley already would have been allowed to study the remains” had the Corps not intervened. *Id.* It was also “highly probable that some or all of the other plaintiffs would have been allowed to conduct such studies. That is particularly true in view of the apparent magnitude of the discovery and the undisputed prominence of the plaintiff scientists in their field.” *Id.*

## 2. The “zone of interests” test does not apply.

Appellants also argue that the Appellees fail to meet the prudential “zone of interests” test. “The ‘zone of interest’ test is a guide for deciding whether, in view of Congress’ evident intent to make agency action presumptively reviewable, a particular plaintiff should be heard to complain of a particular agency decision.” *Clarke v. Securities Indus. Ass’n*, 479 U.S. 388, 399 (1987). “The test is not meant to be especially demanding; in particular, there need be no indication of congressional purpose to benefit the would-be plaintiff.” *Id.* at 400. The test does not apply here: the scientists are directly affected by the agency’s action, and Congress intended to allow suits like the Appellees.

First, the scientists were directly affected by the Secretary’s incorrect interpretation of NAGPRA. The Supreme Court has said the “zone of interests” test limits the scope of reviewability only “in cases where the plaintiff is not itself the subject of the contested regulatory action.” *Clarke*, 479 U.S. at 399. Here, the plaintiff scientists were directly subjected to the contested regulatory action; indeed, the agency seized Kennewick Man while in route to Owsley and firmly rejected subsequent attempts to study the remains. Because the plaintiff scientists were directly affected, there is no need to apply the “zone of interests” test.

Second, Congress did not intend to include the “zone of interests” test in NAGPRA. The NAGPRA “Enforcement” provision, 25 U.S.C. § 3013, creates jurisdiction for “any action brought by any person alleging a violation of this chapter.” This statutory provision resembles the citizen-suit provision of the Endangered Species Act, which permits “any person” to file a suit enforcing the Act. *See* 16 U.S.C. § 1540(g); *Bonnichsen*, 969 F. Supp. at 636 (equating the two statutes). *See also Idrogo v. United States Army*, 18 F. Supp. 2d 25, 28 (D.D.C. 1998) (holding that section 3013 is the “functional equivalent” of the citizen-suit provision).<sup>11</sup> The Supreme Court held the citizen-suit provision evinced a broad Congressional purpose that superseded the “zone of interest” test. *Bennett v. Spear*, 520 U.S. 154, 164-66 (1997). The same analysis should be applied here. Congress’s use of “any person” in section 3013 proves they intended to permit *all* challenges, even allegations that the agency is “overenforcing” the statute by interpreting it too broadly. *See Bennett*, 520 U.S. at 164-66 (holding that the citizen-suit provision permits “overenforcement” claims). At

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<sup>11</sup> To this extent, *Idrogo* actually supports the Appellees, though the Appellant Tribes rely heavily on it. It has little relevance to the remainder of this appeal, because *Idrogo* presented exactly the opposite situation from the present case. *Idrogo*, a *pro se* claimant, incoherently demanded repatriation of Geronimo’s remains under NAGPRA. Because *Idrogo* was not Native American, the court held he could not meet the “injury-in-fact” requirement of constitutional standing. In contrast, the Tribes do not contest “injury-in-fact” and seek to *thwart* repatriation, not enforce it. *Cf. Appellant Tribes’ Brief* at 16. Finally, because *Idrogo*’s problem was one of *constitutional* standing, section 3013 could not help him. *Id.*; *see Lujan*, 504 U.S. at 571-72. But section 3013 overcomes prudential requirements like the “zone of interests” test. *See Bennett*, 520 U.S. at 164-66.

the very least, it is not “impossible to believe” that Congress intended to permit such suits. The Appellees challenge the overenforcement of NAGPRA, and are not barred by the “zone of interests” test.

### **CONCLUSION AND REQUEST FOR RELIEF**

For the foregoing reasons, the Texas Historical Commission requests that this Court affirm the decision of the lower court allowing the scientists to study the Kennewick Man skeleton.

RESPECTFULLY SUBMITTED this \_\_\_\_ day of May, 2003.

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