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13 Attorneys for Plaintiff

14 IN THE UNITED STATES DISTRICT COURT
15 FOR THE DISTRICT OF OREGON

16 ROBSON BONNICHSEN, et al.,
17 Plaintiffs,

18 v.

19 UNITED STATES OF AMERICA,
20 DEPARTMENT OF THE ARMY, et al.,
21 Defendants.

USDC No. CV 96-1481 JE

AFFIDAVIT OF
C. LORING BRACE

22 STATE OF MICHIGAN)
23)ss.
24 County of Washtenaw)

25 I, C. Loring Brace, being first duly sworn, do depose and state as follows:

- 26
1. I am one of the plaintiffs in the above-entitled case.
 2. My birthdate is December 19, 1930. I have been a member of the faculty of the Department of Anthropology, University of Michigan, since 1967. Further details of my professional background are provided in my affidavit dated February 13, 1997 that was filed with the Court in support of

1 Plaintiffs' Motion for Order Granting Access to Study.

2 3. My professional career has been devoted to the study of human skeletal variation and what
3 it can tell us about human development and evolution. Over the past two decades, I have been compiling a
4 database of craniofacial measurements of historic and prehistoric human skeletons from around the world
5 with particular emphasis on New World, Asian and other circum-Pacific populations. One of the goals of
6 my research is to improve our understanding of the evolution of New World native populations and their
7 biological relationship to Asian populations. For many years, it was generally assumed that the original
8 inhabitants of the new World (the "Paleoamericans") were all one and the same people. My research
9 indicates that this was not the case. Rather than one homogenous population, Paleoamericans constituted at
10 least three different groups that had their origins in different Asian populations. My research also indicates
11 that these different Paleoamerican population components are clearly separated by geographic region. This
12 would suggest different dispersal and development patterns for each group (or parts thereof) following
13 arrival in the New World.

14 4. The Kennewick skeleton could provide critical data for my research and for development
15 of my theories concerning the peopling of the Americas. From the photographs I have seen of the cast of
16 the skull, it appears to be similar morphologically to prehistoric Japanese Jomon populations. If this is
17 indeed the case, it raises the possibility that prehistoric Japanese populations may have played a significant
18 role in providing the ancestors of at least some of the original inhabitants of the New World. I have the
19 Jomon measurements to test this possibility, but in order to do so effectively I need a full range of New
20 World specimens. Because of its age, completeness, geographic origin and apparent morphology, the
21 Kennewick skeleton could be a critical component to such an analysis.

22 5. The Kennewick skeleton also could be important for what it might tell us about the
23 relationships between and among the other early skeletons that are already in my database. The existing
24 sample of early New World skeletons older than 8500 years BP (i.e., Before Present) is extremely small.
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1 My database, for example, contains complete measurements on no such specimens and partial
 2 measurements on only 6 more. The presently known sample of Asian skeletons from the period between
 3 8,500 and 30,000 BP is equally small, and most of the existing specimens come from Japan. Because we
 4 have so few specimens from this critical time period in human evolution, each new discovery is significant.
 5 Each new specimen has the potential to reveal new patterns (or new variations) in the fossil record, thereby
 6 affecting how we view the similarities or dissimilarities between early human populations. In my own
 7 research, I have seen how the addition of a new specimen (or a new population) to my database can result in
 8 a reordering of the statistical affinities between a number of different populations. Sometimes these
 9 changes are significant as they can result in the generation of new hypothesis or questions for further
 10 research. Because of its apparent morphological characteristics, the Kennewick skeleton has the potential to
 11 have such effects.

12
 13 6. The government's refusal to permit access to this skeleton has also had an impact on my
 14 ability to publish the results of my research. In January of this year, an article written by myself and my
 15 research colleague Dr. Russell Nelson was rejected by a leading science journal without even having been
 16 subjected to the normal process or peer review. Our manuscript deals with the Asian ancestry of New
 17 World native populations and represents approximately two and a half years of work by myself and Dr.
 18 Nelson. It was rejected by the journal's in-house editorial staff on the grounds it is more appropriate for a
 19 specialized publication rather than a general scientific audience. I believe our manuscript would have been
 20 accepted by this journal if we had been able to include Kennewick Man in the samples used in our analysis.
 21 In the past, this particular journal has regularly published matters relating to Kennewick Man. Although
 22 Dr. Nelson and I intend to redraft our manuscript for submission to another journal, doing so will push back
 23 our publication schedule by at least another year (if not longer).

24
 25 7. The resulting delay in publishing our manuscript will affect my work in many ways.
 26 Among other things, publication of peer reviewed articles helps to enhance a scientist's reputation and

1 ability to obtain grants and other research funding. I and my colleagues and students currently have a
2 number of projects underway or in planning for which funding is needed. Access to the Kennewick
3 skeleton and publication of related articles would undoubtedly help to enhance our ability to obtain the
4 needed funds. For example, Dr. Nelson intends to undertake a research trip to Mongolia to measure historic
5 and prehistoric skeletons in the collections there. This project is directly relevant to my research as it will
6 obtain measurements from a part of Asia currently underrepresented in my database. One of his grant
7 proposals for funding for his trip to Mongolia was recently turned down. I believe he would have obtained
8 the grant if his application had included comparative data on the Kennewick skeleton.

9 8. Publication of peer reviewed articles also plays a critical role in the refinement of
10 techniques and theories. Peer reviewed articles allow a scientist to receive feedback from other members of
11 the scientific community around the world. Such feedback can help to improve interpretations, uncover
12 potential flaws in methods or conclusions, and point the way to new questions to be investigated. The
13 longer this feedback process is delayed the greater the impact on a scientist's ability to take his or her
14 research to new levels of investigation and explanation.

15 9. Denial of access to the Kennewick skeleton also has an impact on my teaching. A
16 professor's ability to teach is directly related to the quantity and quality of the information he or she has to
17 work with. Without access to the Kennewick skeleton, I can only speculate with my students about what
18 this specimen might mean for the peopling of the Americas. I cannot help them to test these speculations or
19 generate the new ideas that might be stimulated by study of the skeleton. Restrictions on knowledge do not
20 benefit the education of new scientists.

21 10. I will be seventy in another year, and I am beginning to run out of years. I have spent two
22 decades of my life developing my research on the biological relationships of Pacific Rim populations, and I
23 do not have twenty more years of active career left to me. Every year that I am denied access to the
24 Kennewick skeleton represents another loss of productive time that I can never make up.
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11. The studies conducted by defendants' study team are not an adequate substitute for examination of the skeleton by myself and other interested scientists. While I respect the professional competence of Dr. Powell, my database includes measurements that he does not normally take. To ensure data accuracy, those measurements should be taken by someone familiar with the particular techniques involved. In addition, my database includes a broad range of prehistoric and modern samples from Asia and the Pacific. These have taken several decades to accumulate in Asian and European collections, and provide a comparative perspective not yet available to the others who are interested in the issues involved. It is important that the interpretation of the skeleton be based upon as many different perspectives as possible. The history of physical anthropology is replete with examples of situations where re-examination of a skeleton has led to new insights or interpretations of the skeleton's significance. Some examples include: T.D. Stewart's reinterpretation of the Neanderthal skeletons from Shanidar Cave in Iraq; Ronald Singer's reassessment of the significance of the Saldanha skull in South Africa; D. Gentry Steele's reappraisal of the variability of the early New World skeletons, and my own reassessment of the inhabitants of Jomon Japan as the ancestors of the living Ainu but not of the living Japanese. Re-examination of specimens and reassessment of interpretations are essential to the scientific process. Without such crosschecks, science would become political or religious dogma and we could never have confidence in the validity of our explanations of the fossil record.

12. The databases compiled by myself and the other members of plaintiffs' study team are the most comprehensive and powerful tools available for assessing the biological affinities of Kennewick Man. Each adds something unique or special to the assessment, either in terms of the data used or the populations available for comparison. The government's refusal to take advantage of these resources is an unexplainable


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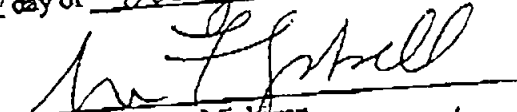
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1 mystery to me. Surely the pursuit of understanding is best served by allowing full access to the skeleton
2 rather than restricting it to just a chosen few.

3 DATED this 16 day of July 1999.


C. Loring Brace

5 SUBSCRIBED and SWORN to before me this 16th day of July, 1999.


Notary Public for Michigan
My Commission Expires: 11/20/99

SUSAN F. CAMPBELL
Notary Public, Washtenaw County, MI
My Commission Expires Nov. 20, 1999

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STATE OF OREGON)
) ss.
County of Multnomah)

I, Tamara L. Thorud, being duly sworn, depose and say: (1) I am a competent person over the age of 18 years and am not a party nor an attorney in the proceeding entitled Bonnichsen, et al v. United States of America, et al in the United States District Court for the District of Oregon and bearing docket number CV98-635-JE in said court; (2) I am a person regularly employed by Barran Liebman LLP, with offices at 520 SW Yamhill Street, Suite 600, Portland, Oregon 97204, who are attorneys for plaintiffs in said proceeding; (3) On August 3, 1999, I served the foregoing document upon defendants in said proceeding by mailing a copy thereof to the attorney(s) for said parties at the last known address:

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1000 S.W. 3rd Ave., Suite 600 Attorney for Asatru Folk Assembly
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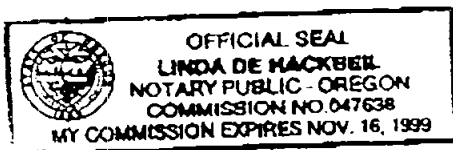
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Reserve

Tamara L. Thorud

Signed and sworn to before me this 3rd day of August, 1999.



Linda de Hackbeil
Notary Public for Oregon
My commission expires: 11-16-99

FFIDAVIT OF MAILING