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Date: 5/18/00 8:55 AM

Priority: Normal

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Subject: Re[2]: Kennewick DNA-- analytical methods

Andy--Thanks for your comment. As we discussed in our conference call, there are several problems if we were to use one or both of the loose teeth. On the call, we discussed three of them--the concern by the physical anthropologists about destruction of the diagnostic characteristics of the teeth; concern that a thin-section of the tooth be taken to obtain histological data before destruction; and, concern apparently expressed by some Native Americans about using a tooth for DNA, although, this last is not one that I had heard. The tribal reps had been strident that no human remains of any kind be used for DNA analysis, or other destructive analysis.

We did not examine other questions related to the two teeth. One is that I think they have been radiographed. I recall looking at one of the x-rays of the mandible done by Chatters and one or both of the teeth seem to have been set in place for the shot. David probably can answer this question because he looked at every radiograph image that we could put our hands on to inventory which bones had been subject to this method.

The other problem is that they are loose teeth, collected, like all the other remains from a general area within the bed of the Columbia River, not recovered in any very controlled manner from a totally disturbed context. They seem to fit within the empty sockets and we seem not to have any mixing of other individuals' remains within the collection. However, I think we are on a bit better ground with the bones which can be compared by color, texture, size, etc. with the rest of the skeleton and associated with it.

If the bone samples don't work, the teeth will still be there, although, the likelihood of another try at this analysis using them is uncertain.

I realize this will not completely satisfy your concerns, but I hope it helps somewhat.

Tx. FPM

Reply Separator

Subject: Re: Kennewick DNA-- analytical methods

Author: "D. Andrew Merriwether" <andym@umich.edu> at np--internet

Date: 5/18/00 12:17 AM

One last comment. I still think you are making a huge mistake by not doing a tooth. It is the least destructive method available, and I feel has the best chance of working with the lowest chance of contamination. I will argue one last time that doing the tooth in addition to this other stuff should be done. That someone would object more to doing a loose tooth than a digit or a rib is astounding. It is equivalent to getting a filling, something everyone can relate to, and would seem to be the least intrusive/invasive method we could use. Only one lab could do it realistically. It could be split, hollowed out, glued back together, and returned virtually intact. The morphology of a single pulp cavity is not too great a loss to physical anthropology, given they have xrays of all

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the rest.
Andy Merriwether

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