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Amici curiae,

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEVADA

FALLON PAIUTE-SHOSHONE TRIBE, )  
a federally recognized Indian tribe, )  
Plaintiff, )  
v. )  
UNITED STATES BUREAU OF LAND )  
MANAGEMENT, )  
Defendant, )

No.CV-N-04-466-LRH (RAM)

**APPLICATION FOR LEAVE TO FILE MEMORANDUM IN OPPOSITION  
TO PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT**

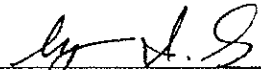
The undersigned hereby request leave of the court to file an amicus memorandum in opposition to the Fallon Paiute-Shoshone Tribe's motion for summary judgment. Two copies of the amici's proposed memorandum have been submitted to the court concurrently with this motion.

Dated this 28<sup>th</sup> day of October, 2005.

Respectfully submitted,



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**CERTIFICATE OF MAILING**

Case Name: Fallon Paiute-Shoshone  
Tribe v. Bureau of Land Management

Case No. CV-N-04-466-LRH (RAM)

I, the undersigned, declare as follows:

I am a citizen of the United States, over the age of eighteen years and not a party to the within action; my residence is Portland, Oregon.

On October 28, 2005 I served the attached AMICUS BRIEF on behalf of Drs. Lyle Campbell and Ives Goddard by placing a true copy thereof in an envelope addressed to each of the persons named below at the addresses shown, and by sealing and causing said envelopes to be deposited in the United States Mail at PORTLAND, OREGON, with postage thereupon fully prepaid. There is delivery service by United States Mail at each of the places addressed, for there is regular communication by mail between the place of mailing and each of the places so addressed.

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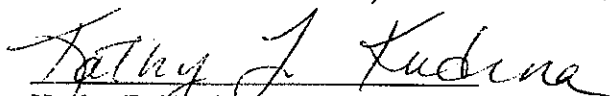
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I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 28, 2005 at Portland, Oregon.

  
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UNITED STATES DISTRICT COURT DISTRICT OF NEVADA  
FOR THE DISTRICT OF NEVADA

RECORDED  
OCT 31 2005

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Plaintiff, )

No. CV-N-04-466-LRH (RAM)

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UNITED STATES BUREAU OF LAND )  
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Defendant, )

***AMICUS BRIEF OF GODDARD AND CAMPBELL***

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## TABLE OF CONTENTS

TABLE OF CONTENTS .....	i
TABLE OF AUTHORITIES .....	ii-iii
INTEREST OF THE AMICI.....	1
INTRODUCTION .....	2
LANGUAGE CHANGE .....	3
HISTORICAL LINGUISTICS .....	5
LANGUAGE EXTINCTION .....	7
TIME DEPTH IN LINGUISTIC RECONSTRUCTIONS.....	9
DEEP-LEVEL PHYLA AND SPIRIT CAVE MAN.....	10
UTO-AZTECAN EXPANSION .....	16
TOO MANY UNKNOWNNS .....	18
CONCLUSIONS.....	21

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## INTEREST OF THE *AMICI*

Dr. Ives Goddard is Senior Linguist at the Smithsonian Institution. He is the author of numerous books and articles on North American Indian languages, Linguistic Editor (since 1970) and Technical Editor (since 1989) of the *Handbook of North American Indians* encyclopedia, editor of *Languages* Vol. 17 of the *Handbook of North American Indians* (published by the Smithsonian Institution in 1996), and author of “The Classification of the Native Languages of North America” and the map “Native Languages and Language Families of North America,” both in that volume. He was an *amicus* in the Kennewick Man lawsuit. *Bonnichsen v. United States*, 367 F.3d 864 (9<sup>th</sup> Cir. 2004).

Dr. Lyle Campbell is Professor of Linguistics and Director of the Center for American Indian Languages at the University of Utah. He sits on 12 journal editorial boards, and has published 18 books and 180 articles. His research interests include Native American languages, endangered languages, historical linguistics, and linguistic anthropology. He has written extensively on the issues of deep-level linguistic classification, and on the origins and history of the American Indian languages involved in this case before the court.

The *amici* disagree with the linguistic arguments made by the Fallon Paiute-Shoshone Tribe (the Tribe) to support their claims to the Spirit Cave Man remains. Acceptance of these arguments would have grave implications for future cases

under the Native American Graves Protection and Repatriation Act, 25 U.S.C. §§3001-3013 (NAGPRA), and for future scientific research and the public's interest in obtaining accurate information about the past. Spirit Cave Man is a rare witness from the remote past. He represents an important chapter in the spread of humans from their original home in Africa to all parts of the world, and is part of the common patrimony of all Americans, and of all people everywhere in the world.

## INTRODUCTION

The Tribe relies on linguistic arguments made by James Goss and Melvin Aikens to support the contention that they and their ancestors have lived for 10,000 or more years in the Great Basin, and that therefore they are descendants of the 9,400 year old Spirit Cave Man. See Fallon Tribe's Motion for Summary Judgment and Memorandum of Points and Authorities in Support Thereof ("Tribe's Memo") at 82-84, 119. The claims made by Drs. Goss and Aikens, and their use by the Tribe, are not consistent with modern linguistic knowledge and techniques for tracing language relationships.

Goss and Aikens depend explicitly and critically on the supposed existence of two deep-level linguistic groupings, Aztec-Tanoan and Macro-Penutian. These groupings are tentative unproved hypotheses that have been rejected by most scholars. Generally accepted principles and methods of historical linguistics,

which have been developed and refined over the last two centuries, have shown that no reliable historical connections can be established over the span of more than 9,000 years involved here. Moreover, the language spoken by Spirit Cave Man and his people is unknown, and there is no available technique for reconstructing what that language was or its relationship, if any, to any language spoken today. For all we know, Spirit Cave Man's language (and his people) may have died out.

Only one thing can be known for certain. Even if Spirit Cave Man does have any living descendants, the inevitable linguistics changes that would have occurred over the past 9,000+ years would make it impossible to recognize any relationship between his language and any modern Native American language.

### LANGUAGE CHANGE

One of the founders of modern structural linguistics noted that "there is no such thing as absolute immobility" in language. "Every part of language is subject to change... The stream of language flows without interruption". Ferdinand de Saussure, *Course in General Linguistics*, 1966, at 140. Edward Sapir, another eminent linguist and anthropologist, described language as moving "down time in a current ... away from any assignable norm, developing new features unceasingly and gradually transforming itself into a language so different from its starting point

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as to be in effect a new language". E. Sapir, *Language*, 1921 (1949 reprint), at 150. Anyone with even a passing acquaintance with the history of English knows what Sapir meant. English as written 1000 years ago is so different from the English we speak today that it cannot be recognized as the same language, even though there is no break in continuity from that time to the present.

The constant process of linguistic change is the result of many factors, both inside a language system and in the social and cultural circumstances of the everyday use of the language. As changes accumulate, the speech norms of different regions or social groups diverge, resulting in the formation of different dialects of the same language. Thus English is spoken in different dialects in England and in the United States, and American English is spoken differently in New York, Mississippi, etc.

When the process of change and divergence continues over a long enough period of time, dialects eventually differ so much from one another that they become mutually unintelligible yet related languages. This is what happened to Latin, the common language of the Roman Empire, when the prevailing social, political and economic bonds gave way and different parts of the empire no longer formed parts of an integrated whole. The Latin dialects spoken in Spain drifted so far away from those spoken in Italy, for example, that eventually different languages emerged, Spanish and Italian, with Latin as their common ancestor.

Another way that languages diverge from one another is through migration, where one portion of a speech community moves away from the main body thus losing connection with the original group so that two or more mutually unintelligible languages arise in very different parts of the continent. One example is what happened with the Athabaskan languages that are widely distributed from Alaska to the Southwest. Another example is the Algonquian family of languages spoken in northeastern North America, but also in parts of the Midwest and the Great Plains, with distantly related outliers as far away as the coast of northern California. Even more dispersed are the languages of the Uto-Aztecan family, to which the ancestral language of the Tribe belongs.

### HISTORICAL LINGUISTICS

Written records give us direct access in some cases to the different stages of language as spoken in the past. Yet writing goes back only about 5,000 years and then only in a few languages. In most literate languages the written record reaches back only a few centuries. The majority of the languages of the world have no written records at all. Despite the lack of documentation, linguists have been able to reach back into prehistory by reconstructing earlier stages of languages and thereby demonstrating and tracing the genetic (that is, historical linguistic) relationship among them. This is done by using the methods of historical

linguistics, in particular the comparative method, the most precise technique of linguistic reconstruction, which has been applied to languages all over the world.

The linguist begins by examining correspondences found in two or more related languages. Such correspondences connect what remains in the present languages of the forms and patterns that they inherited from their common ancestor. By systematically comparing these correspondences the linguist can reconstruct their common ancestral language and the sequences of historical changes that have produced its divergent descendants. Once the languages of one family have been compared, for example Spanish, Portuguese, Italian, French and Romanian, their common ancestral form can be established. In this case the ancestral form is reconstructed as Proto-Romance (corresponding to spoken Latin), and the family that has been identified in the analysis is the Romance family of languages.

The process can be repeated with the proto-languages of other families if they show enough correspondences to indicate that they have descended from a more remote common ancestral language. Thus Proto-Slavic, Proto-Celtic, Proto-Germanic (from which English has descended), etc. have been compared in order to reach the distant ancestral Indo-European form from which they have all diverged.

These analytical techniques, although useful and reliable, only work when trying to establish relationships between two or more known languages. They have no application when one of the languages of interest is unknown as is the case here with Spirit Cave Man's language. In such situations, there is no known scientific technique for determining whether the unknown language has any relationship to any other language. Any conclusions to the contrary are pure speculation.

### LANGUAGE EXTINCTION

Not all languages can be shown to have a genetic relationship with others. For example, the Basque language spoken in the Pyrenees Mountains has no living relative and is thus considered a language isolate. There are many such languages in the world, including Native North America, that represent what may be the last remaining branch of a language family whose other members have become extinct. There is no way to know how many languages have come and gone over the millennia, for "language death" as linguists call it, is a natural part of language history. The vast majority of those languages that are now extinct have entirely disappeared without leaving a trace in any historical record or in the speech of living communities. We do, however, know of dozens of Indo-European and non-Indo-European languages in the Mediterranean area that had given way to Greek and Latin by Late Antiquity, such as Etruscan, Lydian, Illyrian, Thracian, Phrygian, Lycian, Hittite, etc. See W. Bright (ed.), *International Encyclopedia of*

*Linguistics*, 1992, Vol. 1 at 63 and Vol. 2 at 243. It is also known that a large number of American Indian languages have disappeared since European contact.

One scholar, even after assuming less linguistic diversity in earlier times than later, estimated that 85% to 89% of the languages spoken in North America 6,000 to 7,000 years ago have no documented descendants. S. M. Lamb, "Linguistic Diversification and Extinction in North America", 1964, at 462. This percentage increases if the starting point is 9,400 years ago. It would also increase if deeper level "superphylum" relationships like Aztec-Tanoan and Macro-Penutian are postulated as the Tribe does. See Tribe's Memo at 56, 84. The reason is that reducing the number of present-day stocks is tantamount to reducing the number of ancient languages that have existing survivors.

There is no reason to believe that the group to which Spirit Cave Man belonged was exempt from the normal process of language death. The probability is high that the language they spoke 9,400 years ago died out without leaving a trace.<sup>1</sup>

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<sup>1</sup> Goss acknowledges the possibility "that many more dialects have become extinct than have survived to be described." J.A. Goss, "Linguistic Tools For the Great Basin Prehistorian," in *Models and Great Basin Prehistory: A Symposium*, 1977, at. 56.



## TIME DEPTH IN LINGUISTIC RECONSTRUCTIONS

The comparative method (when it applies) can take us back only so far and just how far is not known in absolute terms. In ideal cases there may be a general consensus in favor of a ball-park estimate of the time-depth of a language family. Such is the case of the Indo-European family of languages, which is one of the most thoroughly studied groupings of languages in the world. Most scholars would agree that this language family does not go back much more than 6,000 years, and most of the branches are much younger than that. J.P. Mallory and D.Q. Adams, *Encyclopedia of Indo-European Culture*, 1997, at 586. Also, the fact that ancient written records exist for most branches of the Indo-European language family, in some cases more than three millennia old, is a major factor accounting for the precision with which its linguistic history can be reconstructed. Because of the absence of comparably ancient written records in the Americas, however, much greater uncertainties exist over the reconstruction of any Native American language groupings that are claimed to be as old as Indo-European, let alone one said to be 9,000+ years old.

Some scholars have attempted to establish what are called superstocks or phyla, and at a deeper level superphyla, by examining resemblances in the languages of different families. For example, the Uralic family (which includes Finnish) was compared with the controversial Altaic phylum (which includes

Turkish) to posit a superphylum called Ural-Altaic, which has now been abandoned as a valid unit. In fact, the term phylum, is usually understood to imply “that the genetic relationship has not been fully demonstrated, and that it is therefore impossible to speak in terms of a common ancestral language.” Bright, 1992, Vol. 2, at 55.

Many uncertainties impact any attempt to determine linguistic relationships over the enormous time depths posited by language phyla and superphyla. As time increases actual resemblances between related features become fainter and harder to recognize, and random chance can create spurious resemblances that are only an illusion. For factors that can complicate the problem of trying to establish language relationships at time depths even less than those involved in phyla and superphyla, see L. Campbell, *American Indian Languages*, 1997, at 206-259.<sup>2</sup>

## DEEP-LEVEL PHYLA AND SPIRIT CAVE MAN

For many years anthropologists and linguists have tried to reduce the great linguistic diversity of Native North America into more manageable genetic units. Some of those attempts were intended only as hypotheses to be proved later, but nevertheless have gradually found their way into conventional thinking without having been convincingly demonstrated using empirical data. Also, different

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<sup>2</sup> This book won the Leonard Bloomfield Book Award in 2000, which is presented by the Linguistic Society of America every two years “to recognize the volume that makes the most outstanding contribution to the development of our understanding of language and linguistics” (quoted from the website [www.lsadc.org](http://www.lsadc.org)). It was also named the 1998 Outstanding Academic Book by Choice.

methods have been used in attempting to establish genetic relationships. Not all of these methods have been accepted by most linguists working in the field. See Campbell, 1997, at 209-213 (discussing Greenberg's multilateral comparison method).

These problems have created systems of classification ranging from well established to farfetched. Campbell proposes that such schemes should be evaluated along a continuum from established and non-controversial relationships, to more distant but still solidly supported relationships, to plausible but inconclusive proposals, to doubtful but not implausible proposals, to implausible proposals (such as the relationship of Turkish and Quechua, the Inca language still spoken in the Andes of South America). Campbell, 1997, at 208.

The Tribe's argument that the direct ancestral forms of their Numic language have been spoken for ten or eleven millennia in the same area where they now live is one example of a doubtful, unproven hypothesis. Tribe's Memo at 56, 82, 84. This claim depends on deep-level linguistic relationships that go far beyond the known evidence.

Linguists agree that the languages currently spoken by the Tribe (i.e., Northern Paiute and Western Shoshone) are members of the Numic branch of the Uto-Aztecan (a/k/a Utaztekan) language family. This language family currently contains eight or so branches which are scattered non-contiguously from Oregon to

Nicaragua. Whether it also once contained other branches that are now extinct is unknown, but is a distinct possibility. See discussion in earlier section on Language Extinction.

Linguists also agree that all existing members of the Uto-Aztecan language family are descendants of a common ancestral language that through the normal processes of linguistic change became differentiated over time into the separate languages now spoken today. This ancestral language is called Proto-Uto-Aztecan. How long ago that original language was spoken is not known for certain, but linguists generally agree on dating its existence to between approximately 5,000 and 3,000 years ago. Goss, 1977 at 62 and 65; J. H. Hill, "Proto-Uto-Aztecan: A Community of Cultivators in Central Mexico?," *American Anthropologist*, Vol. 103, 2001, at 928.

Linguists also agree that Proto-Uto-Aztecan, like all known languages and reconstructed proto-languages, was descended from an earlier language. What that earlier language might have been is unknown. Some hypotheses have been suggested, but none has been proven to the general satisfaction of the linguistic community.

The arguments advanced by Drs. Goss and Aikens depend critically on such unproven hypotheses. They rest explicitly on the assertion (or assumption) that the Uto-Aztecan language family is part of a larger superstock (or phylum) called

Aztec-Tanoan, which in turn is part of an even larger and more ancient superphylum called Macro-Penutian. See Goss, 1977, at 60-65; Tribe's Memo at 56, 84. Goss states in his 1977 article that his overall hypothesis crucially depends on assumptions "contingent upon the validation of the Macro-Penutian hypothesis." See Goss, 1977, at 60.<sup>3</sup> Aikens makes a similar and equally explicit qualification of his proposal. See Tribe's Memo at 56 (quoting Aikens's qualification: "granting the superphylum relationships").

The concept of an Aztec-Tanoan language phylum linking Uto-Aztecan with the Kiowa Tanoan family (and possibly the otherwise unlinked Zuni language) was originally suggested by Edward Sapir. See E. Sapir, "Central and North American Languages," in *Encyclopedia Britannica*, Vol. 5, 1929, at 173. Sapir provided no evidence for such a connection, and in fact later wrote that his overall classification "must not be taken too literally. It is offered merely as a first step toward defining the issue, and it goes without saying that the status of several of these languages may have to be entirely restated." E. Sapir, "The Hokan Affinity of Subtiaba in Nicaragua", *American Anthropologist*, 1925, Vol. 27, at 526. This, caveat, however, is sometimes ignored or forgotten. See L. Campbell and M. Mithun,

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<sup>3</sup> Although the term "Macro Penutian" does not appear in Goss's 1999 report to the Tribe (AR 1036-1055), it clearly underlies the conclusions reached in his report. His 1999 report cites the 1977 article (AR 1044) as does the Tribe's Memo (at 83). Macro-Penutian is the concept that lies behind such expressions as "the Numic speakers . . . and their ancestors", "the ancestors of the NUMU PEOPLES", and "Numic (or proto-Numic) . . . 11,000 years ago." AR 1042 (italics added); Tribe's Memo at 56, 83 (italics added). Note that Goss's statement that his overall hypothesis requires "the validation of the Macro-Penutian hypothesis" implies that the validation of the Aztec-Tanoan hypothesis is also required, since Aztec-Tanoan is one of the components of Macro-Penutian, and thus Macro-Penutian, as proposed, cannot be valid if Aztec-Tanoan is not valid.

“Introduction: North American Indian Historical Linguistics in Current Perspective”, in Campbell and Mithun (eds), *The Languages of North America: Historical and Comparative Assessment*, 1979, at 29.

An early supporter of the Aztec-Tanoan hypothesis was Benjamin Lee Whorf. See B.L. Whorf and G.L. Trager, “The Relationship of Uto-Aztecan and Tanoan,” *American Anthropologist*, Vol. 39, 1937. The arguments made by Whorf and others in favor of an Aztec-Tanoan superstock have not been accepted by most linguists. See Campbell 1997 at 237 (the hypothesis of an Aztec-Tanoan superstock is “very weak”); M.K. Foster, “Language and the Culture History of North America,” in *Handbook of North American Indians: Languages*, 1996, Vol. 17 at 88 (“speculative”); Hale and Harris, “Historical Linguistics and Archeology,” in *Handbook of North American Indians, Southwest*, 1979, Vol. 9 at 171 (“a cautious view must leave the question open”).

Whorf further proposed that Aztec-Tanoan (including Uto-Aztecan and hence Numic) was related to Sapir’s Penutian superstock<sup>4</sup> and to Mayan and several other families of Mesoamerica in an even higher level superphylum which he called Macro-Penutian, but he published no evidence in support of his

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<sup>4</sup> Penutian was another superstock proposed by Sapir to connect various western Native American languages. It has been rejected, or strongly questioned, by many linguists. See e.g., Campbell and Mithun 1979 at 317; W. Shipley, *Proceedings of the Annual Meeting of the Berkeley Linguistic Society*, 1980, Vol. 6, at 440.

proposal.<sup>5</sup> B.L. Whorf, "The Comparative Linguistics of Uto-Aztecan," *American Anthropologist*, 1935, Vol. 37 at 608; B.L. Whorf, "Loan-Words in Ancient Mexico," *Philological and Documentary Studies*, Vol. 1, 1948, at 7. The Macro-Penutian hypothesis never attained any significant support from linguists and is generally ignored, except in some speculative constructs of prehistory. See discussion in Campbell, 1997, at 312; Foster, 1996, at 91-92 ("generally treated with a large measure of skepticism by linguists"); Hale and Harris, 1979, at 171 ("unconvincing"). The Tribe has submitted no evidence or argument to support the Macro-Penutian hypothesis that is crucial to their claim of linguistic affinity with Spirit Cave Man.

The Goss and Aikens hypothesis that the modern Numic languages reflect a 10,000-year history in the Great Basin is far from being, as claimed, the most parsimonious account. It requires the acceptance of two conjectural linguistic superstocks that are based on extremely slender or no evidence and are universally regarded as not validated. No specialist accepts either superstock as proven, and Macro-Penutian was rejected even by Joseph Greenberg, who accepted many other controversial proposed deep-level linguistic relationships in North America. Foster, 1996, at 91-92; Campbell, 1997, at 327. Since Goss and Aikens acknowledge that the validity of their hypothesis depends on the validation of these

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<sup>5</sup> A superphylum is a construct at one level higher than a phylum. Since phyla are, almost by definition, speculative concepts that cannot be verified by traditional linguistic methods, superphyla are little more than interesting "might-bes".

linguistic superstocks, and since these superstocks have not been validated, the Tribe's claim that a language ancestral to their traditional Numic speech was spoken in the Great Basin 9,400 (and more) years ago should be rejected. Without critical support from verifiable evidence, it can only be characterized as unproven speculation.

### UTO-AZTECAN EXPANSION

No reputable scholar would dispute that Spirit Cave Man died many millennia before the first emergence of Northern Paiute, Shoshone, and the other modern Numic languages. Even Goss concedes that Numic did not emerge as a distinct branch of Uto-Aztecan until sometime between 2000 and 1000 B.C., over 5000 years after Spirit Cave Man's death. Goss 1977 at 65-67. Most scholars would place the beginning of the dispersal of the Numic languages somewhat later at about A.D. 1. W. R. Miller, "Numic Languages," in *Handbook of North American Indians: Great Basin*, Vol. 11, 1986, at 103. In either case, we can safely conclude that Spirit Cave Man did not speak a language that was anything like Northern Paiute.

Nor would any reputable scholar dispute that the Proto-Uto-Aztecan ancestors of the Numic speaking peoples once occupied an area much smaller than that occupied by their linguistic descendants at the time of Euroamerican contact. That such an expansion occurred is self-evident. The only explanation for the



relatedness of languages is descent from a common proto-language that contained the features the languages share; a proto-language, like any single language in earlier times, could not have maintained any original linguistic uniformity if it had been spoken over more than a minimal area.

Since there are no written records here to work with, the location of the original Proto-Uto-Aztecan homeland can only be inferred from indirect evidence. Most scholars would place this homeland somewhere around the present border of the United States and Mexico, or even further south. Foster, 1996 at 92; Hill, 2001 at 913, 915-917. Such a conclusion is based upon the generally accepted and widely confirmed principle that the point of origin of a widespread language family is most likely to have been near the “center of gravity” of its known descendants, as determined from geographical distribution corrected for degree of relationship. Foster, 1996 at 64-65. Goss disagrees with this conclusion, and would place the Uto-Aztecan homeland somewhere in the “Intermountain West.” Goss, 1999 at AR 1038. Few linguists agree with such a placement.<sup>6</sup> Moreover, even if one were to accept Goss’s hypothesis, it still would not connect Spirit Cave Man to the Tribe. The Intermountain West is an enormous territory that covers all or parts of seven states, and Goss himself concedes that he cannot be more specific

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<sup>6</sup> As Goss makes clear, the factor that influenced him to move the inferred Uto-Aztecan homeland northward from the location on the international border that is accepted by most linguists was his adoption of Whorf’s Macro-Penutian hypothesis. Goss, 1977 at 60. Application of the center of gravity principle would place the original homeland of such a superphylum (if it had existed) somewhere north of the border.

in locating the center of gravity of the Uto-Aztecan language family. Goss, 1999 at AR 1038. As a result, even under his own hypothesis, the original Uto-Aztecan homeland could have been many hundreds of miles from where Spirit Cave Man's remains were found.<sup>7</sup> We are thus no closer to knowing what language this person spoke 9,400 years ago.

### TOO MANY UNKNOWNNS

There are too many unknowns to reach any reliable conclusions about what language Spirit Cave Man spoke and how that language might be related, if at all, to any language spoken today. For example, we do not know what kind of linguistic diversity existed in the western Great Basin during Spirit Cave Man's time. Was there only one language spoken in the area? Or were there several? Or even more? Likewise we do not know where his language came from. Did it come from the south? Or the north? Or the east, or west? Nor do we know what happened to his language over time. Was it one of those languages that became extinct? Or was it one of the fortunate few that gave rise to a language (or languages) spoken today? If so, which ones are they? We do not even know if Spirit Cave Man and his group have any living descendants. Survival 9,000 years ago was not a certain thing, and group extinction was a constant threat.

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<sup>7</sup> Even granting a general "intermountain" location for the Proto-Uto-Aztecan language, the Intermountain West, as defined, is so vast an area that the odds that Proto-Uto-Aztecan was spoken precisely in the area where Spirit Cave Man had been buried millennia earlier are so small as to be negligible. For this reason, geography is not a positive factor here in favor of continuity as it might be in other cases.

Even if Spirit Cave Man does have living descendants (linguistic or biological), we do not know who they are or where they reside today. They could be anywhere, even outside the United States in some far off part of Central America or South America. Long-term geographic stability of nonagricultural preliterate peoples was an exception, not the general rule in human prehistory. Linguists have documented numerous examples of population movements over large distances in prehistoric North America and elsewhere in the world. For example, modern Navajo and Apache are the descendants of Athabaskan speaking ancestors who once lived in Canada. The Wiyot and Yurok tribes of northern California speak languages linguistically related to the Algonquian languages of the Midwest and eastern United States (all belong to a family called Algie). At some point long ago, there was a movement of Proto-Algie speakers from some unknown location, which was almost certainly outside of the areas where the descendant languages were later spoken. The Cherokee, who resided in the southeastern United States at the time of European contact, speak a language related to those of the Iroquois peoples of New York State. Whether these Iroquoian languages spread from north to south or vice versa is a matter of disagreement.

There is also archaeological evidence indicating that population movements may have occurred in the Great Basin over the past 10,000 years. The settlement

patterns and technology of the pre-Archaic period (before 8,000 years ago) are so different from those of later periods that it is difficult to find a connection between them. See, Elston, Tribe's Exhibit K, at 187, 193. Elston concluded that people may have vacated the area between 8,000 and 6,000 years ago. *Id.* at 199.

Another significant difference is the techniques used to make the mats in which Spirit Cave Man was buried. They are not part of a tradition that continued into ethnographic times. See Fowler, Tribe's Exhibit L, at 14. Because of such discontinuities and gaps in the archaeological record, BLM concluded that a connection could not be made between Spirit Cave Man and subsequent peoples living in the area.

The Tribe disagrees with that conclusion, and cites several archaeologists who believe that there was long-term continuity in human populations in the Great Basin over the past 10,000 years. There is no way at present to determine the extent to which there might have been some continuity of this sort. We simply do not know enough about the population dynamics of the western Great Basin during Spirit Cave Man's time and over the succeeding 9,000+ years to reach any firm conclusions in that regard. However, given what we know about other parts of the world, it is a doubtful hypothesis.

There are at least several things that we can be confident of. Whatever the language was that Spirit Cave Man spoke, it would be unrecognizable today. It

would be unlike any other language in the world. Nor would he feel any connection to the Tribe or to any other people living today, beyond those things that all people have in common (i.e., the need for food, shelter, companionship, etc.). His times are so far removed from ours, and so many things have changed in the intervening 9,400 years, that he would be like a visitor from a different world.

### CONCLUSIONS

In sum, given what is known of the extensive prehistoric movement of peoples and spread of languages, it is extremely unlikely that any given Native American language is spoken on the same spot where its linguistic ancestor was spoken over 9,000 years ago. On any hypothesis of linguistic relationship there is simply no scientific basis for asserting that any particular language, or indeed any single language family, "was spoken throughout the Intermontane region 10,000 years ago". Everything we know about linguistic diversity in aboriginal North America suggests that there would have been linguistic diversity in aboriginal North America in the past that was as great as in the contact period of the late second millennium.

Nor can we take it for granted that Spirit Cave Man has any living

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descendants. He may have been part of a group that went extinct. Too little is known to reach any reliable conclusions in that regard. Even if he does have living descendants, the chances are good that his language does not have any. The widespread distribution of shallow-level language families in North America forces the conclusion that there once existed other languages that were displaced in many areas as newcomer languages moved in.

Furthermore, even if Spirit Cave Man does have linguistic descendants, his and their languages would be so different in structure from one another and so different in lexical and semantic content that language could never provide a connection of shared identity between him and the Tribe (or any other American Indian group). There is simply no linguistic basis whatever for the claims of the Tribe. The *amici curiae*, therefore, urge that the court reject their claims.

Respectfully submitted,



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**CERTIFICATE OF MAILING**

Case Name: Fallon Paiute-Shoshone  
Tribe v. Bureau of Land Management

Case No. CV-N-04-466-LRH (RAM)

I, the undersigned, declare as follows:

I am a citizen of the United States, over the age of eighteen years and not a party to the within action; my residence is Portland, Oregon.

On October 28, 2005 I served the attached APPLICATION FOR LEAVE TO FILE MEMORANDUM IN OPPOSITION TO PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT on behalf of Drs. Lyle Campbell and Ives Goddard by placing a true copy thereof in an envelope addressed to each of the persons named below at the addresses shown, and by sealing and causing said envelopes to be deposited in the United States Mail at PORTLAND, OREGON, with postage thereupon fully prepaid. There is delivery service by United States Mail at each of the places addressed, for there is regular communication by mail between the place of mailing and each of the places so addressed.

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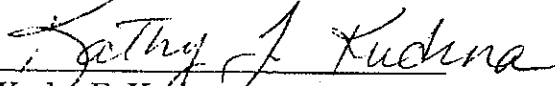
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I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 28, 2005 at Portland, Oregon.

  
Kathy F. Kudrna