NOTICE OF INVENTORY COMPLETION
EVIDENCE FOR DETERMINATION SHEET

EVIDENCE FOR CULTURAL DETERMINATION: CA-SDI-4669

FEDERALLY RECOGNIZED GROUP: Present (proveniences are situated within the aboriginal territory of the Ipai-Tipai, as defined by the *Handbook of North American Indians, volume 8*)

RECOMMENDATION: Culturally unidentifiable at this time (see attached minority report). We readily concede that an absence of evidence for cultural affiliation is not equivalent to affirmative evidence for non-affiliation. Five hundred generations of intervening time leave ample room for numerous episodes of genetic drift and decisive, even fundamental, cultural innovations and shifts. The highly imperfect and incomplete record of temporal sequencing of archaeological remains contains little to argue for or against such affiliation. Simply stated, our finding is that there is not a significant preponderance of evidence to support an affirmation of cultural identification or affiliation with any modern group.

Although there is evidence from material culture that people have lived in the San Diego region since the late Pleistocene or early Holocene, the linguistic analyses and archaeological evidence indicate that the Kumeyaay moved into the region within the last few thousand years. Kumeyaay folklore and oral tradition emphasize water (both fresh and marine) and a specific region within the Mohave Desert as their places of origin. The mtDNA profiles of the skeletons under discussion are not known; and there is scant genetic data available for the Kumeyaay. However, haplogroups present in a terminal Pleistocene skeleton from the Pacific Northwest and in extant coastal Native Californians are rare or absent in the few Kumeyaay mitochondrial genomes so far analyzed. The burial pattern of the 2 skeletons recovered from UCSD property differs from that of the Kumeyaay as reported in early ethnographies. Even so, there could be genetic continuity between the human skeletons buried on UCSD property and the Kumeyaay if recent Kumeyaay displaced earlier populations linguistically and culturally; but intermixed with those earlier populations at some level.

SUMMARY OF CONSULTATION:
October 4, 2007. Unscheduled Consultation between one member of UCSD NAGPRA Working Group, Dr. Ross Frank, and 11 members of the KCRC and two non-members, Carmen Lucas, Kumeyaay Elder, and her lawyer, Courtney Coyle. Working Group not represented by counsel.

November 27, 2007. Susan Hector, ASM, and Margaret Schoeninger, UCSD, oversaw the transfer of the skeletal material from the Museum of Man to the San Diego Archaeological Center (SDAC). Susan Hector transported the material in her vehicle. At the SDAC, the skeletal material was unpacked while Susan Hector recorded a rough inventory. Observing were several members of the KCRC including Clint Linton and Bernice Paipa. Also present were Carmen Lucas, Kumeyaay Elder, and her lawyer, Courtney Coyle. Members of the UCSD NAGPRA Working Group present were Margaret Schoeninger and Robert M. Adams and UCSD was represented by counsel.

January 24, 2008. All members of the UCSD NAGPRA Working Group (Margaret Schoeninger, Anthropology and committee chair, Ross Frank, Ethnic Studies, Pat Masters, SIO (retired), and Robert M. Adams, Anthropology) consulted with representatives of the KCRC at the Barona Community Building. Notes of the meeting are attached, corrections/additions to those notes are expected from Bernice Paipa, Secretary of the KCRC and will be attached when received.

SUMMARY OF POTENTIALLY RELEVANT EVIDENCE: The evidence cited below applies to the site recorded with the State of California as CA-SDI-4669, but also known as SDM-W-12A as recorded by the San Diego Museum of Man.

“The site in question is the University’s cliff-top property on which is located the Chancellor’s official residence, University House. Since the 1920s, archaeological materials had been removed from the site and, to the best of our knowledge, deposited at the San Diego Museum of Man. The house, built in the early 1950s and originally a private
home, became university property in 1967. In 1976, an archaeological field excavation project was mounted under the direction of Professor Gail Kennedy of UCLA with a student crew from CSU-Northridge, from which Professor Kennedy had recently moved. The site was severely disturbed from decades of farming and construction activities. During the 1976 season, three sets of human remains were excavated: one was in a very poor state of preservation, but two others were quite intact. Remarkably, these two skeletons comprised a double burial: a male, aged 33-44, and a female, aged 40-54. The two were on their sides in a reversed, flexed position…” (Report from Distinguished Professor of Anthropology Professor Donald Tuzin, now deceased, to Gary C. Matthews, Interim Vice Chancellor, Resource Management and Planning, UCSD, March 22, 2007). According to Kennedy (1983), the male’s feet rested upon or near the head of the female. “No cultural materials were found in association with either burial” (Kennedy, 1983:4), and the appearance of the cultural matrix in combination with the good preservation of the skeletons “seem to indicate that complete closure of the grave occurred very soon after interment” (Kennedy 1983:4).

The evidence compiled in this report is directed toward an understanding of the cultural affiliation of these two skeletons, which are now housed temporarily at the San Diego Archaeological Center.

**Historic evidence:** At the time of European contact, the people living along the La Jolla coast were Yuman-speaking bands, who lived in the southern part of California and also in northern Baja California. The name ‘La Jolla’ is based on a Kumeyaay place name, Mat kulaahuuy, meaning ‘place of caves’ (Couro and Langdon 1975: 135). There is limited historic documentation of a place with this name occupied at the time of Spanish contact. The term Kumeyaay (Kumeyaay Nation) was adopted as a tribal name in the 20th century for thirteen federally recognized bands in San Diego County.

**Geographical:** The site is located in the aboriginal territory of a group of bands that since the mid-1900’s have referred to themselves as Kumeyaay. Earlier, the referent terms were Tipai and its cognate Ipai, names meaning ‘people’. “These are all closely related, Yuman-speaking bands that, in the sixteenth century, when contact with Europeans began, occupied nearly the entire southern extreme of the present state of California and adjoining portions of northern Baja California” (Luomala 1978:592).

**Folklore:** The Kumeyaay firmly believe that their people have lived in the region since the “beginning”. Several websites, endorsed by the various Kumeyaay bands (http://www.viejasbandofkumeyaay.org/html/tribal_history/Kumeyaay_history.html); (http://www.sycuan.com/history.html), provide web articles that outline their traditional beliefs. These beliefs are based on oral tradition and folklore combined with the archaeological evidence (reviewed in a following section) that there were people living in the region since the late Pleistocene. For example, the Viejas Band considers themselves the original inhabitants of the areas now known as San Diego and Imperial counties and Baja California, and the Sycuan Band states that their group has lived in San Diego for 12,000 years.

Several early ethnographers recorded the folklore of the people they found living in the area at the time of their work. Hodge (1907) reported the story of Kumeyaay creation, as represented in ground paintings, which includes the ocean and an area around San Jacinto, an area that is linked with both with the Diegueño Indians (Kumeyaay) and the Luiseño Indians (Shoshone). Waterman (1910: 300-304, 350-353) described Diegueño ground paintings as including a native universe with landmarks, such as Santa Catalina Island, the Coronado Islands, San Bernardino Mountain, and the Cuyamaca peaks. Spier (1923: 319-320) observed a ground painting showing a rock in the ocean (Coronado Islands), Viejas Mountain, San Jacinto Mountain, a mountain east of Picacho Mountain, and other nearby locations. Depending on the location, different landmarks are shown in the painting, indicating highly localized and varied perceptions of the native landscape. All, however, include the ocean.

Ceremonial song cycles among the Kumeyaay, known as Bird Songs, describe how people were created in the San Diego area. The song cycles are related to numerous and extensive Yuman language song cycles describing creation, the topography, flora, fauna, and important places over an area that extends from the Colorado River to the ocean, and from Baja to northern San Diego County (Kroeber, 1948; 1972). Bird songs are shared among Luiseño, Cahuilla, and Cupeno neighbors and fulfill very similar functions (Dozier, 1998).

**Oral Tradition:** Several interpretations of Kumeyaay creation involve the Great Spirit or Creator blowing life into the dirt bodies of men and women in the place where their people lived. According to tribal tradition, modern
Kumeyaay are descendents of the same people who have been here since man and woman were first created. According to their websites, they do not accept the premise that Yuman-speaking migrations into the area invalidate their claim to cultural continuity with people who were in the area when they arrived.

Several versions of the Kumeyaay creation story have been recorded (Dubois 1901, 1908, Hedges 1982, Laylander 2004, Lee 1933, Meigs 1971, Spier 1923, Waterman 1910). The majority of the stories involve the same central themes, names of the creators, and locations. In nearly all published interpretations, the creators emerge from the ocean. One exception to the ocean theme is the version of the Kumeyaay origin story that was told to ethnographer Constance Goddard DuBois by Cinon Duro (Hokoyel Mutaweer), of the Mesa Grande band (Dubois 1901). This well cited interpretation of Kumeyaay creation illustrates the extension of Kumeyaay lands throughout the region (Laylander 2004:38-39; 79; 81-82) and states that in the beginning, the world was “pure lake covered with tules” (Dubois 1901:181). Tules are sedges of the plant family Cyperaceae and are native to freshwater marshes in North America (Muntz 1973). Although the creators are typically represented as being from the ocean, in the variations of the story that include a specific reference to the place where humans were created, all indicate a mountain called “Wikami”, which is located in the Mojave desert (Dubois 1908, Hedges 1982, Spier 1923, Waterman 1909, 1910).

The creation story goes on to indicate that in the beginning, the Sky-Power Father and Earth Mother, Sinyohauoch, gave issue to two sons: Tu-chai-pai, the first born, and Yo-ko-mat-is, the younger, both emerge from the ocean. In most interpretations, Yo-ko-mat-is was blinded by salt water upon his emergence and returns to the ocean. The brothers are responsible for creating humans; specifically, Tu-chai-pai took mud (or clay) from the ground to make the first man woman. The people walked to the east in darkness until Tu-chai-pai made light for them.

When Tu-chai-pai was dying, he taught people about their world. According to several variations of the story, Tu-chai-pai died “in the east” and was cremated (Hedges 1982, Lee 1978, Spier 1923, Waterman 1909, 1910). In one version, it is specifically stated that that Tu-chai-pai died on the east side of the Colorado River and is the first person to be cremated in the traditional way (Hedges 1982). Another version states that when Tu-chai-pai died, he departed through Pamu (in the mountain foothills of east San Diego near Ramona) to San Diego Bay, went along the beach, and then into the water where he disappeared. As he stepped through the countryside, his footprints left impressions on the mountains and rocks. When he was thirsty, he marked a bowl-shaped area in a rock, and this filled with water. Tu-chai-pai left these marks, which are still there today, so that his children would see evidence that he had been there and had traveled from the mountains to the ocean (Laylander 2004).

The Folklore and Oral Tradition can be interpreted in several ways; but it is not possible, at least at this time, to establish the time depth to which these traditions apply and how they relate, if at all, to the individuals who lived in the region 10,000 years ago. To the best of our knowledge, cultural identity cannot be proved or disproved on the basis of folklore and oral tradition at a level beyond 2,000 years in the absence of written records.

**Linguistic:** California displays an incredibly high degree of linguistic diversity that probably reflects population migration patterns throughout the prehistory of the region (the following is based largely on Johnson and Lorenz, 2006). Apparently, some 88 distinct languages classified into fourteen language families plus seven isolates existed at the time of European contact along the U.S. portion of the Pacific Coast to the tip of the Baja peninsula. Within central and southern California, three major ethnolinguistic groups are commonly identified including the Chumashan family (today’s Chumash of the Santa Barbara region), the Uto-Aztecan family (Luiseño, among others), and the Yuman family, which includes the Ipai and Tipai who are now known as Kumeyaay. “In southern California, groups speaking various Uto-Aztecan languages are wedged between Yuman societies in the San Diego-Colorado River-Baja California area and the Chumash...in the Santa Barbara Channel...[region]” (Johnson and Lorenz, 2006:33). The Uto-Aztecan speakers are generally considered to have come from the Great Basin region somewhere between 5,000 and 2,000 years ago. In the San Diego area, the Cupan subgroup (Luiseno, Cupeno, Cahuilla) are thought to be a fairly recent intrusion, probably within the last millennium (Golla, 2007:75).

Hokan is the oldest linguistic phylum among western North American languages with a time depth of ca. 8,000 years (comparable to North African-Near Eastern relationships among Semitic, Ancient Egyptian, Berber and numerous Sudanic languages). Most of the other language families of California show substratal influence from one or more Hokan languages. However, the Yuman family of eight closely related languages (spoken along the lower Colorado River, northwestern Arizona, and along the coast of far southern California and northern Baja California)
diversified within the last two millennia (Golla, 2007:79). Other Hokan isolates include the Pomo of the Russian River area and the Esselen and Salinen of the Central Coast.

“The earliest stratum of languages along the Pacific coast --- Yukian, Chumash, the language substratal to Island Chumash, and possibly one or more languages at the southern tip of Baja California --- ...reflect an early coastal pattern of settlement of the continent during the Terminal Pleistocene and Early Holocene” (Golla, 2007: 81).

**Kinship:** No lineal descendants have been identified for the human remains from CA-SDI-4669, and the genetic relationship is unknown because no attempts have been made to extract ancient DNA (aDNA) from the bones or teeth of these individuals. Modern Native American mitochondrial DNA (mtDNA) demonstrate 5 distinctive haplogroups (A, B, C, D, and X, see Schurr, 2004) in the first hypervariable section of the mitochondrial genome. Of the few early (>8,000 years B.P.) Native American remains analyzed, only haplogroups B, C, and most recently D have been identified (Kemp et al., 2007).

Of particular relevance to the present consideration, the 10,300 year old skeleton from On Your Knees Cave on Prince of Wales Island, Alaska, displays haplogroup D, which has been identified among the Chumash Indians living near present-day Santa Barbara; but not among the Kumeyaay (Kemp et al., 2007). This result could be due to the small number of Kumeyaay analyzed (n=1) compared with the Chumash (n=25).

A recent study of complete mtDNA (in contrast to the control region) in several extant New World and Asian populations concludes that the founder population had much greater diversity than previously appreciated; but no samples from California Indians were analyzed (Tamm et al., 2007). The most relevant of those analyzed is the Paiute. The Southern Paiute traditionally lived in the Colorado River basin and Mojave Desert (see Linguistic and Folklore Sections above) in northern Arizona, southeastern California, southern Nevada, and southern Utah. The Northern Paiute traditionally lived in the Great Basin in eastern California, western Nevada, and southeast Oregon. There is no sharp distinction between the Northern Paiute and western Shoshone (the population called the Luiseño (see Linguistic Section above and Folklore Section above). Overall the result of the genetic analyses “suggests that the swift migration was followed by long-term isolation of local populations accompanied with the development of regional haplotypes within continental founder haplogroups” (Tamm et al., 2007:4, emphasis added).

A study of the hypervariable segment 1 (HVS1) in mtDNA shows “high levels of haplogroup A …along the California Coast as well as shared HVS1 sequences [which] indicate that early migrants to the New World settled along the coast with little gene flow into the interior valleys” (Eshleman et al. 2004:55). The data show extensive genetic mixing between populations belonging to the Uto-Aztecan and Yuman language families, specifically between the Luiseno and Ipai (see also Johnson and Lorenz, 2006). Also, the Yuman “may be seen as more generally similar of Southwestern desert populations, which likewise share relatively high frequencies of haplogroup C” (Eshleman et al. 2004:67, citing Malhi et al., 2003). Haplogroup A is found in high frequencies in the Chumash and the Hakan-speaking Salinen and Esselen north of the Chumash, but not among neighboring inland groups. It has also been identified in 3 of 3 ancient burials from Monterey County (see Eshleman and Smith, 2007: 296). On the other hand, Haplogroup A is rare or absent in the Uto-Aztecan (Gabrieleno, Luiseno) speakers of the Orange County, southern island, and San Diego County coasts.

In sum, the genetic evidence thus far argues for an original peopling of North America around 15,000 years ago with rapid population expansion followed by isolation of local populations, presumably adapted to their specific environments. The combination of linguistic and genetic evidence argues for an ancient immigration (late Pleistocene or early Holocene) of the proto-Chumash along the Pacific Coast with settlement perhaps throughout central and southern California, followed by influxes of Hakan speakers, with subsequent movement of Uto-Aztecan and Yuman speakers into the region during the middle to late Holocene.

**Biological:** There is general agreement that human skeletal remains from North American populations dating to the late Pleistocene and early Holocene (11,350-8,000 years B.P.) are quite distinct from late Holocene and extant American Indian populations (Steele and Powell, 1993; Lahr, 1995; Neves, 1999 et al. 1999; Powell and Neves, 1999; Jantz and Owsley, 2005). Although there is quite a bit of diversity among the early skeletons, they are similar to each other in that all of the crania “have a longer and narrower braincase than do most recent American Indians and northern Asians” (Steele and Powell, 1993:140). In comparisons among the early North American fossil samples, modern Asians, and extant American Indian populations, the fossil samples have shorter and narrower
faces than the other two and “[i]n these features…approach the braincase and facial shape of recent southern Asian and southern Pacific rim populations” (Steele and Powell, 1993:140). The two skeletons recovered from UCSD property are similar to other early fossil skeletons and dissimilar to extant groups in terms of their craniometric (i.e., measurements made on the skull and face) data (Owsley lab notes, 2008, copy attached). The cranial vaults are long and narrow with short and relatively narrow faces when compared with extant Native Americans; “[t]here is no evidence for a genetic relationship to any modern Indian tribal groups” (Owsley lab notes, 2008:7). An additional study on discrete traits (descriptive rather than measured) is now underway by Dr. Arion Mayes of SDSU and Mr. Clint Linton, Santa Ysabel Tribe of the Kumeyaay Nation and will be attached when received.

There is less agreement concerning answers to the query: “Why don’t Paleoindians look like modern Native Americans?” (Edgar et al., 2007). One explanation for the lack of similarity is that of population history. The Late Pleistocene and early Holocene populations could represent founding populations that either died out or contributed little to those populations existing in the region during the later portion of the Holocene or today (Lahr 1995, Neves et al., 1999, Munford et al., 1996). A recent study comparing the cranial and facial morphology within a world-wide sample of prehistoric human skeletons concludes that Eurasian (as distinct from strictly Asian) populations moved into previously unoccupied regions of North and South America between 15,000 and 12,000 years ago along three likely routes, one down the Pacific coast, one south through the continental midsection and one east toward the Atlantic coast (Brace et al., 2001). Subsequently (5,000-2,000 year ago) a technology-based (i.e., agriculture) expansion of different populations, this time strictly Asian, moved into areas where people already lived southward and eastward of the Rocky Mountains (Brace et al., 2001).

Other explanations make assumptions about effective population sizes and the contemporaneity of individuals representing different time periods. Subdivisions of a single founding group, separated by geographic barriers or distance, could show different morphologies between the subdivisions as a result of genetic drift. As populations increased in size, gene flow would result in the overall similar morphologies observed in the more recent and in extant populations (Powell and Neves, 1999). Population structure, with some groups dying out and others surviving, could also contribute to the complicated pattern of morphology observed throughout the prehistoric human record.

Given that 10,000 years or nearly 500 human generations separates extant Native American populations from the earliest inhabitants of southern California it is difficult to reach conclusions about the exact reasons for the lack of similarity between the two skeletons and living American Indians. All that can be said conclusively is that the skeletal morphology of the two skeletons provides no support for a finding of cultural affiliation between the two and the Kumeyaay. When considered in conjunction with the genetic evidence, the morphological distinctiveness and within group diversity of early (>8,000 years B.P.) skeletons is consistent with an early (15,000 years ago) immigration with rapid population expansion followed by a long period of population isolations.

**Archaeological:** Native Americans have lived in the San Diego region since the early Holocene or terminal Pleistocene (approximately 10,000 years ago). Whereas several San Diego County sites have radiocarbon dates ca. 10,000 years BP (Erlandson et al., 2007:58), the first direct dating of human remains in this time range was accomplished for CA-SDI-4669, the University House property (Bada and Masters 1978, Ike et al., 1979 see attached).

Artifacts recovered from the site (although not in association with the burials) include finely made stone tools (scrapers and knives), described as San Dieguito (Rogers, 1939, 1945), and flaked cobbles tools, basin metates, and unshaped manos often referred to the La Jollan Complex (Moratto, 1984: 147). The dates of these artifacts and their temporal relations with each other have been a matter of much controversy; but the presence of millingstones in 9-10,000-year-old sites on the San Diego, Santa Barbara, and San Luis Obispo coasts defines an Early Holocene Millingstone Culture along the California coast. This pattern, marked by millingslabs, handstones, and crude core tools, persisted on the San Diego coast into late prehistoric times.

A human burial, also buried on its side with the knees bent, was recovered from the site in 1936 (Rogers, unpublished field notes cited in Ike et al., 1979). This individual, an adult male, was buried under a cairn of basin metates. This burial is dated to 8,360+/−75 radiocarbon years B.P. by Oxford University and 7,900 to 8,100 years B.P. by amino acid racemization (Ike et al. 1979). The calibrated date falls between 9,124 and 9,779 years B.P.
Because this individual was recovered from the property before it belonged to UCSD, it is not discussed further here; but serves to indicate that the double burial was not a unique find.

The two human skeletons from the double burial were dated at the Pretoria radiocarbon lab. The dates are 8,350+/-90 radiocarbon year B.P. for burial 1 (the male) and 8,330+/-160 radiocarbon years B.P. for burial 2 (the female) (Kennedy, 1983). The calibrated dates for the two fall between 8,977 and 9,603 years B.P. Thus, the remains of these two, plus the one recovered in 1936, represent some of the earliest known human remains from either North or South America.

The double burial, as noted above, consists of two individuals each buried on their sides with their knees bent. This burial pattern contrasts with that reported ethnographically for the Kumeyaay. According to the Kumeyaay creation story on their website (taken from Kumeyaay.com on Oct. 24, 2007, see attached PDF), “because their god had been cremated it showed them that this was the right way for them to take care of their dead…” Prior to the period of Spanish Contact, cremation, not burial, was the Kumeyaay pattern.

Carbon and Nitrogen stable isotope analysis of human bone collagen from the two burials from SDI-4669 (Masters and Schoeninger, unpublished data) are consistent with a year-round diet of open-ocean and some nearshore marine fish or marine mammals. This contrasts with the diets of the Kumeyaay who “lived on wild plants, supplemented with more small than large game, and, in places, fish” (Luomala 1978: 592). Seasonal dependence on marine foods would produce lower values of the isotope signals than those recovered from the SDI-4669 burials.

The Late Prehistoric pattern of San Diego is generally considered to have started between 1300 and 800 B.P. (Moratto 1984: 153; Rogers 1945; Warren 1964, 1968). Artifacts include small pressure-flaked projectile points with the introduction of the bow and arrow, inhumations are replaced with cremations, and ceramic technology appeared. Subsistence changes involved acorn processing and a shift to smaller resources that were more numerous (Byrd and Raab, 2007:223). The appearance of new traits (particularly cremations, ceramics, and the bow and arrow) occurred earlier in the east than the west and very late or minimally on the coast (ibid.). It appears likely that these technologies and customs spread westward with the Yuman speakers ancestral to the Kumeyaay.

Although there are arguments for cultural continuity between the Millingstone cultural pattern and the historic Yuman speakers (Moratto 1984: 156-158), the biological, linguistic, and genetic evidence do not appear to agree with these arguments.

References Cited:

Bada, Jeffrey L. and Patricia M. Masters

Brace, C. Loring, A. Russell Nelson, Noriko Seguchi, Hiroaki Oe, Leslie Sering, Pan Qifeng, Li Yongyi, and Dashitsev Tumen

Brown, Alan K. (editor)

Byrd, Brian F. and L. Mark Raab
Bull, Charles S.

Couro, Ted and Margaret Langdon

Dozier, D.

DuBois, Constance Goddard

Edgar, Heather J.H.

Eshleman, Jason A., Ripan S. Malhi, John R. Johnson, Frederika A. Kaestle, Joseph Lorenz, and David Glenn Smith

Golla, Victor

Hedges, Ken

Hodge, Frederick Webb

Ike, Darcy, Jeffrey L. Bada, Patricia M. Masters, Gail Kennedy, and John C. Vogel

Jantz, Richard L. and Douglas W. Owsley
Johnson, John R. and Joseph G. Lorenz


Kennedy, Gail E.

Kroeber, Alfred L.

Laylander, Don

Lee, Milicent

Luomala, Katherine

Meigs, Peveril, III.

Moratto, Michael J.

Moriarty, James Robert

Muntz, Philip A.

Rogers, Malcolm J.

Schurr, T.G.

Spier, Leslie  


True, Delbert L.  

Warren, Claude N.  

Waterman, T.T.  

Wilson, Diana Drake  