

First
Draft

Preliminary Report on
the Archaeological Data Recovery Program
of a Portion of Prehistoric Site:
Ca-Ala-479, Union City, Ca.

Prepared for:
Union City Industrial Partners
Union City, Ca.



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Thanks to our field crew who included: George Rogers (Rogers and Associates), Ben Ananian (M.A. Hayward State), Mark Hylkema (Graduate Student, SJSU), Alan Leventhal (Anthropology Lab Director, SJSU), William Pink (Former Executive Secretary of the Native American Heritage Commission), Scott Dano (East Bay Regional Park), Mrs. Dolores S. Franco (Age 78, Chochenyo Ohlone Elder, OFCS), Rosemary Cambra (Ohlone, OFCS), Norma Sanchez (OFCS), Keith Oshins, Carolyn Andrews, Jason Florey, and Abraham Torres (Apache).

Although no formal funds were allocated for any systematic lab analysis of the human remains and archaeological materials recovered from Ca-Ala-479, we want to recognize the following individuals for their contributions to this preliminary report: Beverly Domenech, Elizabeth Karren, Kevin Dattolico and Glen Wilson who processed, cleaned and prepared the human remains and archaeological materials for general analysis. Kevin Dattolico and Beverly Domenech sorted the shell fish remains and generated the metric data as well as sorted and prepared the faunal remains for analysis. Dr. William Hildebrandt (FWARG) and Jeff Hall (SJSU), both faunal analysts, offered a cursory review and identification of some of the faunal remains. It should be noted that this was done only to get a "feel" about the diverse representation of the animal species within the recovered faunal assemblage. Glen Wilson drafted and prepared the final site map by plotting all of the archaeological and burial loci. Jeff Hall generously provided the information from his research on prehistoric site Ca-Ala-343 and wrote the section on the

Environmental Setting and Resource Distribution. Mark Hylkema wrote the Ethnographic Background section addressing late Eighteenth century contact between the Spanish and the Ohlones. Scott Dano reviewed historical documents pertaining to the history of the locality. Dr. Robert Jurmain (Human Osteologist, SJSU), Laura M. Ford-Lemos (SJSU) and Alan Leventhal analyzed the human skeletal remains for age, sex, osteometrics and pathologies. Dr. Thomas Jackson (SJSU/Berkeley) visually sourced the obsidian. Alan Leventhal analyzed the flaked and groundstone materials and along with Rosemary Cambre and Norma Sanchez oversaw the entire field and lab operations.

Finally a special thanks and recognition has to go to the those members of all the Ohlone families, the Elders of yesterday and the children of tomorrow. It is your history and rich heritage that is buried in this ground. This is the land that we, the Ohlone, have never left. It is our responsibility to take our history and what little knowledge we have left of today and preserve them for our next generation of children to come. The truth and the dynamics of our long history have yet to be fully written. Only through the spirit of cooperation between scholars, developers, public agencies and the Native American communities can we truly try to preserve the past and yet hopefully rediscover aspects of our indigenous culture and history that has only recently been identified as spanning a period of over 9000 years in the greater Bay area. It is with this spirit in mind that we want to acknowledge the living Elders of the Muwekma Ohlone Tribe who are the descendants of the Mission San Jose/ Pleasanton/Niles Rancherias: Mrs. Dolores S. Franco, Mrs. Margret S. Martinez, Mr. Robert Sanchez, Mr. Enos Sanchez, Mrs. Ruth Orta and Mr. Felipe Galvan as well as all of their children and relations. It is to your people we write this document.

Finally a special dedication to Mrs. Trinidad Rauno, the last surviving granddaughter of Ohlone Captain Jose Antonio and Jacoba, who died this year at age 84. We will all miss this loving Ohlone Elder, she was the last of her generation.

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Introduction

This document is a preliminary report which summarizes the results from the Archaeological Data Recovery Program performed at site Ca-Ala-479. This Archaeological project was conducted by Ohlone Family Consultant Services (O.F.C.S.) at the request of Union City Industrial Partners who are in the process of constructing a large warehouse facility on a parcel of land located on Dowe Avenue in Union City.

Prior to the construction of this development, Union City Industrial Partners received a negative declaration by the Union City Planning Department. However it was during the earthmoving phase of construction that evidence of prehistoric Native American human remains came to light on November 19, 1986. (see Argus Newspaper Article: Appendix I). Construction was halted and the County Coroner as well as representative from the Native American Heritage Commission were contacted. Mrs. Rosemary Cambra, a descendant of the Mission San Jose/ Pleasanton Rancheria Ohlone Indians was then contacted by Mr. Gary Paul Beck, Executive Secretary of the Native American Heritage Commission, to serve in the capacity as "one of the most likely descendants" as prescribed in SB297. Essentially, Mrs. Cambra was called in to evaluate the impacts to the ancestral burials as well as make recommendations over the disposition of the impacted human remains and associated artifacts. When it became apparant that continued earthmoving operations would potentially create further negative impacts on in situ burials, an agreement was established between Union City Industrial Partners and Ohlone Family Consulting Services to impliment an Archaeological Data Recovery Program.

This recovery program was essentially divided into three phases:

Phase I: Survey and Mapping.

This phase recommended that a complete on site survey immediately take place in order to identify and plot sensitive areas containing evidence of human remains. Each of these impacted areas were then assigned an individual locus letter in order to establish control over the site as part of the recovery process. Phase I was completed on November 23 and a preliminary report was submitted to Mr. David Boras Site Developer. (see appendix II).

Phase II: Data Recovery - Mapping, Screening and Excavation

After completion of Phase I, a systematic recovery process was

implimented. Both Archaeologists and Native Americans served as field crews during the excavation and screening process. The goals established for Phase II Data Recovery were to include: the careful excavation and removal of at least two impacted burials left in situ; the maximum recovery of human remains previously impacted by earthmoving equipment by screening backdirt piles and disturbed areas with 1/4" and 1/8" screens; and the maximum recovery of artifactual and ecofactual materials (e.g., lithics, groundstone, shellfish, fauna and etc.) within each respective locus.

Phase III: Monitoring

After completion of the Phase II field operations, one to several field crew served as on site observers monitoring the remaining areas subjected to earthmoving operations. Upon the discovery of any human burials, artifacts or features excavations would cease until the archaeological crew could carefully inspect and/or remove the prehistoric materials.

Environmental Setting and Resource Distribution

This section describes the distribution of important resources in relation to Ca-Ala-479. This discussion is based on the research by Kuchler (1977), Barbour and Major (1977), Atwater, Hedel, and Helley (1977), Desgrandchamp (1976) and Hornbeck (1983). Data was also supplied by areal photography and USGS topographic maps. (See Figure 1 for Habitat Distribution Map).

Approximately 4km northeast of Ala-479, the Diablo Range climbs sharply to elevations of over 1000 feet. The site is located on alluvium which gently slopes south and west towards the bay. Ala-479 is near the convergence of Alameda and Dry Creeks. The Coyote Hill are 6km southwest of the site.

The shores of the San Francisco Bay possibly extended within 4km west of the site prior to historic period development. Alameda Creek is located immediately south of the site. Futhermore, there were numerous small ponds and other riparian habitats that occured along the small creeks and springs.

The dominant vegetation communities of the paleoenvironment were salt water marsh, fresh water marsh, grasslands, and mixed hardwood forest.

Salt water marsh was widely distributed in the vicinity of Ala-479. It covered a vast area encircling the San Francisco Bay. As shown by the map (Figure 1), a large salt water marsh was well within reach of the site. Some examples of resources found within this community are waterfowl, fish, shellfish, and sea mammals.

Freshwater marshes probably occured along creeks and springs that drained the Diablo Range. Although this community wasn't distributed as widely as the

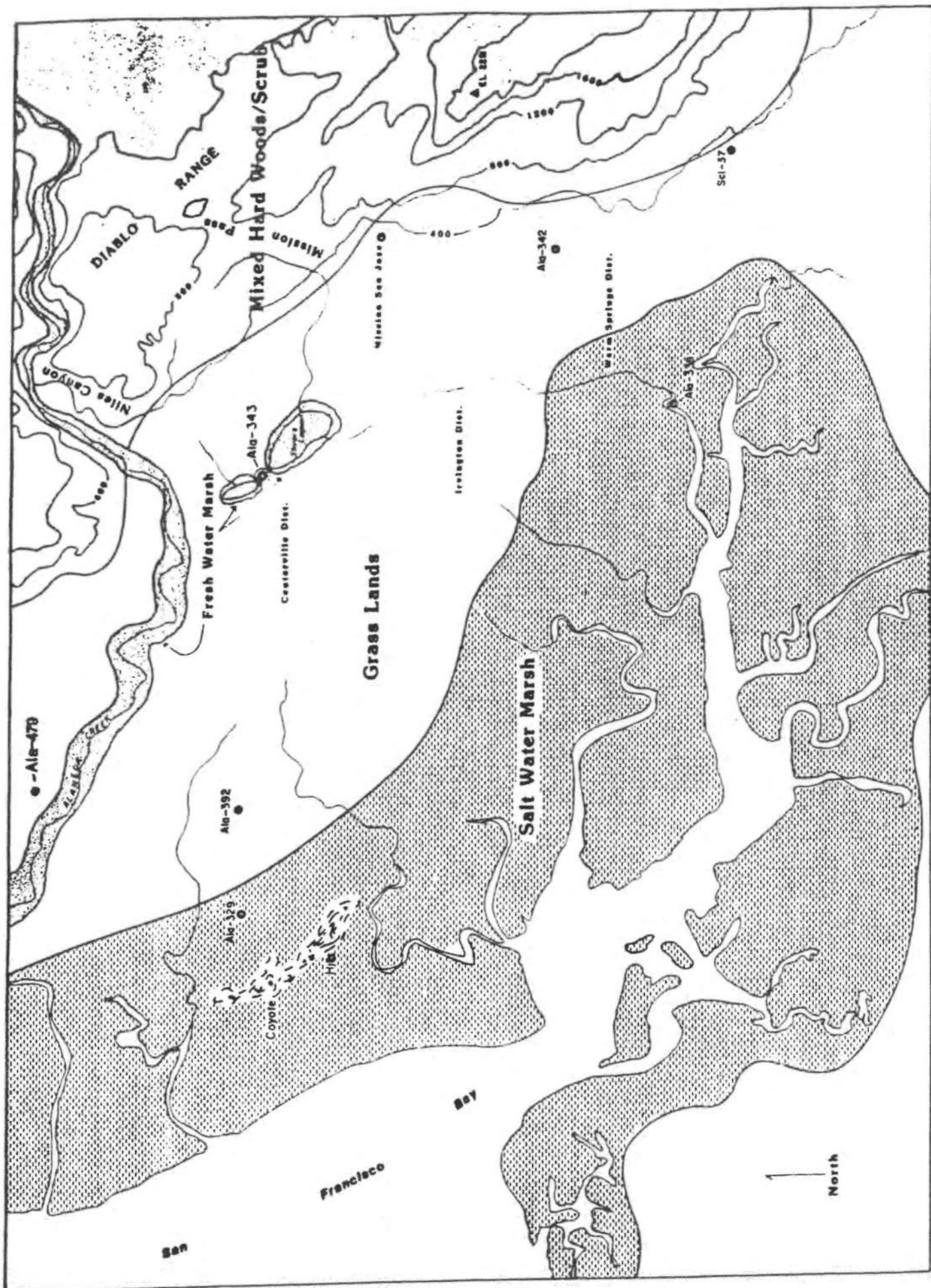


FIGURE 1

(After J. Hall, 1985)

salt water marsh, it was important because a fresh water habitat was located next to the site. A fresh water habitat hosts migratory waterfowl, terrestrial mammals, and willows. Ala-479 is located in coastal prairie-scrub which exists along the Diablo Range foothills and into the Santa Clara Valley. Like the salt water marsh, it covered a wide area. In relation to the site, it extended north and south, and eastward towards the mountains. The perennial forbes and bunch grasses of this community supported small and large terrestrial mammals and produced grass seed.

Mixed hardwood forest occurred in the Diablo Range east of Ala-479. This community is found on the shaded side of gullies and mountains and at higher elevations. Open grasslands and chaparral probably grew in drier, sunnier areas. This habitat is located in rugged terrain, and as a whole is less accessible from the site. Resources in this habitat include oaks, pine, and scattered terrestrial mammals.

A major lithic resource (quarried stone) was Franciscan Chert. The source of this chert is the Franciscan Formation, which is distributed in the Diablo Range and Coyote Hills. Obsidian and Monterey chert which are also present at the site, are not considered locally available because the nearest sources of these stone materials are, respectively, Napa Glass Mountain and Punta del Año Nuevo on the Pacific coast.

To summarize, the nearest habitat to Ala-479 is the fresh water marsh which was found on either side of Alameda Creek. However, this community was limited in extent. Grassland communities were also adjacent to the site. The salt water marsh and the bay were within approximately 2km. of the site and represent extensive and rich habitats. Mixed hardwood forest was the least accessible, being most dominant in the Diablo Range. Finally Franciscan Chert was readily available due to the site's proximity to the Diablo Range and Coyote Hills. (Hall, 1985).

Ethnographic Background

Large populations of Native Californians occupied the San Francisco Bay region. Historical accounts of early European travelers and their descriptions of the local native populations are relevant in examining prehistoric socio-political organization around the East Bay.

The first documented encounter between the Indians and Spanish explorers occurred on November 27, 1770. An expedition led by Lt. Pedro Fages traveling through present day Fremont states that...

"Turning north, we had to cross a water-course thickly grown with alders...but without water (Canada de Alviso). Near it was a very good fresh water lagoon...where there was an abundance of geese...we saw close to the lagoon many pleasant and affable heathen to whom we presented strings of glass beads." (Fages, 1911:151).

Other expeditions of importance include a second journey by Fages in 1772 and one in 1776 under Juan Bautista de Anza (Bolton, 1927, 1930). In 1776 the Anza expedition encountered six villages from Milpitas to San Lorenzo Creek and noted that the inhabitants had fled prior to their arrival. The party did, however, succeed in meeting some forty individuals along the way and mentions that, "...the heathens eat grass and herbs and some roots like medium sized onions, which they call amole, and in which these plains greatly abound." (Cook, 1960:132). Father Font notes in his diary of the journey that the Indians were somewhat bearded, gentle, and very poor (Bolton, 1930:357).

Shortly after these expeditions, missions were established at Santa Clara (1776) and San Jose (1797). The goal of the mission system was to induce tribal groups into servitude and create agricultural centers. Ultimately they were to be granted Spanish citizenship. Unfortunately, large numbers of Indians died through exposure to European diseases and malnutrition (Cook, 1976).

Mission register research indicates that at least two large tribelets occupied the Alameda area. These were the Tuibun and Yrgin (Milliken, 1981: 4-37).

Tribelets have been defined by Kroeber as being multi-family political and land holding groups. These groups contained several settlements of similar size, frequently with one central village which was permanently occupied, and the other villages being utilized only temporarily (Kroeber, 1962:33). The principal villages were places where caches of food and materials were stored and ceremonial activities took place.

The native population of the east bay subsisted on the seasonal gathering of plant foods, supplemented by hunting, fishing and collection of shellfish.

Grass seeds were gathered on the plains during late summer and were ground into flour. Acorns were available in the foothills during fall, and were processed by pounding in a mortar with a pestle, and then leaching the flour. Acorns were stored for winter use as well. Soaproot bulbs were gathered in the spring through early fall and were roasted in earth ovens (Harrington, 1942).

Waterfowl were most abundant during winter and were either netted or shot with bow and arrow. Quail and doves were gathered throughout the year. Deer, elk, and antelope were hunted with bow and arrow throughout the year as well. Rabbits, squirrels, and other small game were snared, netted or clubbed. See mammals were hunted in the bay and its estuaries. Fish and shellfish were available throughout the year, except for salmon and steelhead which migrate seasonally. Sturgeon and other fish were frequently hooked, speared, or netted from tule reed canoes. (Hylkema, 1985a).

Historic Review of the Ca-Ala-479 Vicinity

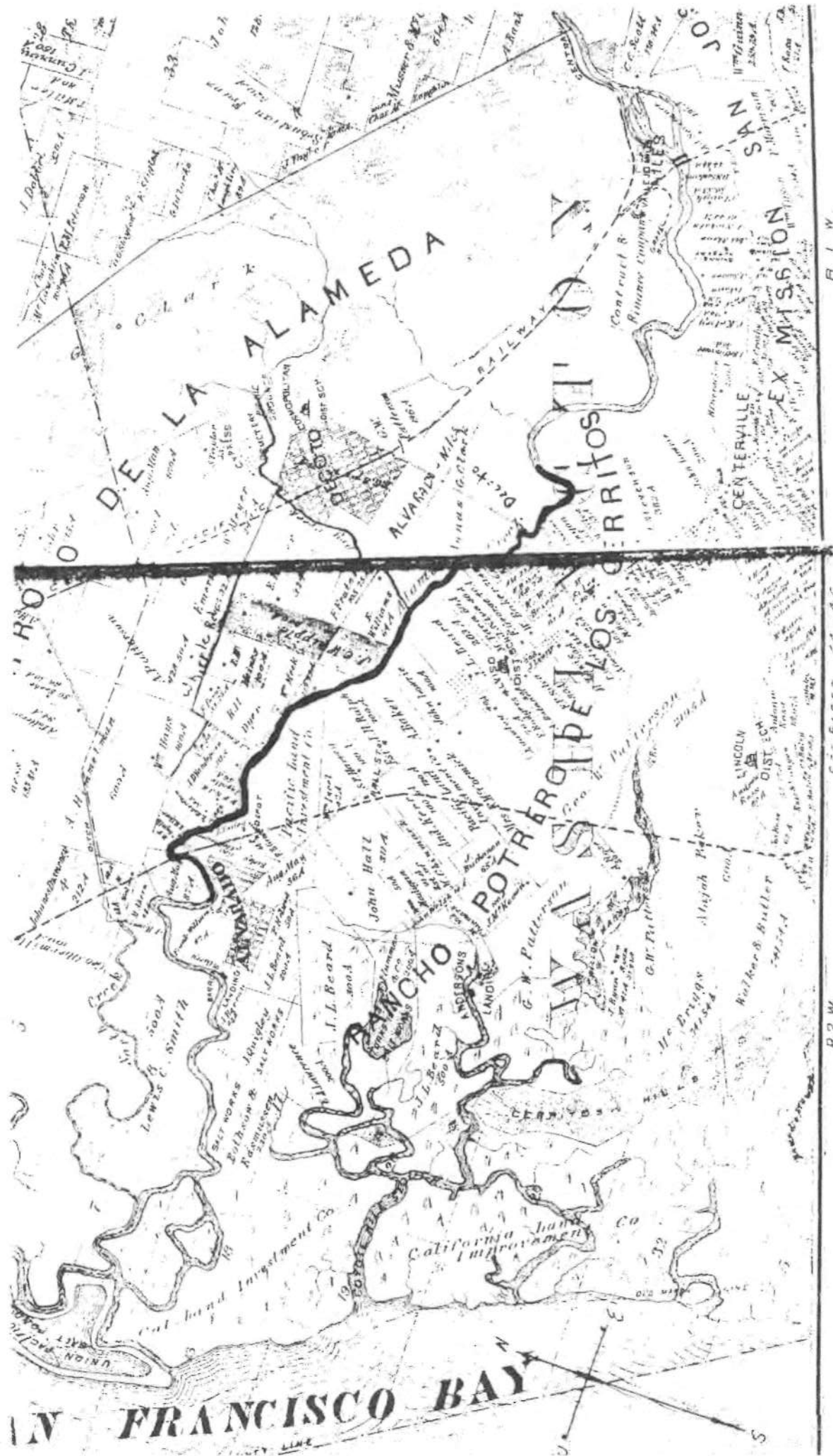
Early in this century, short items of interest published in the Alvarado Pioneer and other Washington Township newspapers have referred to the shell mounds located in that area of land where the two major water courses of Alameda Creek and Dry Creek converge. The Secunda Creek (now Dry Creek) near the Chapel of the Chimes property, emptied into Alameda Creek near Alvarado. Along its upper banks were located small Indian villages among the willows with inhabitants numbering from 15 to 25. Archaeologists who surveyed the area in the 1910-1930 period were not readily available to catalog these findings. However, the authors of the "History of Washington Township" published at the Stanford press in 1904 relate: "Evidences of residence by the Indians have been found on the farms (around the Bell Ranch) by J.C. Whipple and on the I.B. Haines estate. Mortars and human bones have been exhumed in several places on these lands". Interestingly, the Whipple and Haines properties are directly in this study area. Prior to recent development of this area, site Ala-479 may have been one of those Indian residences described in the History of the Washington Township. This is further supported by the Thompson and West map of 1878. (see Figure 2).

Previous Archaeological Investigations

No previous investigation or site designations are known for this site. However, adjacent as well as nearby parcels of land were surveyed by Mr. Stephen Dietz (ACRS) in 1985 (Dietz, personal communication). Approximately one fifth mile to the southeast of Ala-479 is the "Post Office Site" Ala-453 that was excavated by Dietz in 1985. Ala-453 yielded a rich mortuary complex with extended burials. Ca-Ala-479, although disturbed by earth moving construction activities, has also generated important archaeological information that contributes to our understanding of the prehistoric lifeways of the Indian inhabitants of the East Bay approximately 2000 years ago.

Field/Lab Results

A total of 26 separate loci were identified and plotted on a master map provided by Union City Industrial Partners. Most of the loci were assigned to sensitive areas containing evidence of disturbed human remains and/or in situ burials. However, several loci were given for unique isolated finds as well as areas suspected to contain human remains. (See Figure 3 - Site Map Loci Distribution). After removal and/or collection all materials were taken to the Center for Anthropological Research Lab Facility at San Jose State University for processing and limited analysis. Although adequate funding for detailed analysis was not provided by the contract, an attempt to generate some meaningful data as well as limited interpretations of these data has been made by researchers on the team. The results of these analyses generated by the Archaeological Data Recovery Program are as follows:



SEE PAGES 44-45
Thompson and West
Historical Atlas of Alameda County, California, 1873

Figure 2.

Human Remains

All of the human skeletal elements were separated from the rest of the materials recovered from within each respective locus. Afterwards, all of the bones were carefully cleaned with water and a soft toothbrush. Care was taken not to saturate the bone in order to protect the already fragile state of preservation.

A total of 32 maximum number of individuals were identified (21 adults and 11 sub adults) based upon the presence of recovered human skeletal elements within each locus. Each individual identified was recorded on a standard San Jose State University Human Skeletal Inventory sheet (see appendix III). The following is a summary of each individual burial along with pertinent observations on their respective age, sex and associated pathologies:

Locus A: originally designated as Burial 1. This locus produced evidence of three incomplete individuals as well as two remnant in situ burial pits.

Burial 1 is a fairly complete skeleton of a robust adult individual. We believe that this person is a male based upon the large femoral heads, long bone fragments, heavy zygomatic arch and a fairly wide sciatic notch (Ubelaker, 1978). Age: 30+ years. Pathologies include: Thoracic 1(?) vertebra resorptive lesion; fractured mid rib. Other observations: the in situ recovery of the 1st right pollucial metatarsal from pit 2 in this locus identifies the burial origin of this individual; Red ochre staining on the temporal fragments (right side).

Burial 2 is an isolated 1st pollucial metatarsal. This bone is more gracile than known adult male samples. This one pollex is smaller than the two associated with burial 1 and therefore thought to perhaps be from a female(?) individual.

Burial 3 is from a cremation of an infant. This cremation is represented by three isolated elements. A femur head with epiphysis has been fire blackened from the cremation process.

Locus B: In situ burial encountered while excavating a footing for the building.

Burial 4 is a flexed burial of an adult male probably age 30+ at time of death. This burial was severely damaged by the heavy equipment, however, we were able to save some of the diagnostic skeletal elements. Pathologies include: a muscle tear on the medial inferior surface of the clavicle; and a large growth on a tibial bone fragment whicha looks like a tumor.



OHLONE FAMILY MEMBERS SCREENING LOCUS B: BURIAL # 4



Laura M. Ford-Lemos Analyzing Human Remains From Ala-479

Locus C: represents the remnant of an impacted in situ flexed burial.

Burial 5 is a remnant flexed burial which was impacted by heavy scraping equipment. Only part of the upper and lower limb long bones were found in situ. This individual is an adult, however age and sex are indeterminate.

Locus D: represents human remains recovered from a backdirt pile.

Burial 6 is a collection of elements from one individual. This person may be an adult male(?) due to the presence of a very robust pollex and long bones. The overall condition of the skeleton is fragmentary. The sutures of the cranium are almost completely absorbed. Pathologies include: slight osteophytosis on the glenoid rim of a scapula. Overall this is an extremely large and robust person.

Locus E: represents a isolated element from a backhoe trench.

Burial 7 is an isolated parietal (skull) fragment of an adult.

Locus F: represents human bones recovered from a large backdirt pile.

Burial 8 is represented by fragments of an adult individual. There are five cranial and several long bone fragments present.

Locus G: represent an isolate element recovered as a surface find.

Burial 9 is a fragmented acetabulum of an adult(?) innominate (pelvis).

Locus H: is a non-burial locus - mortar fragments (see below).

Locus I: represents two fragmented individuals that were recovered from two backdirt piles.

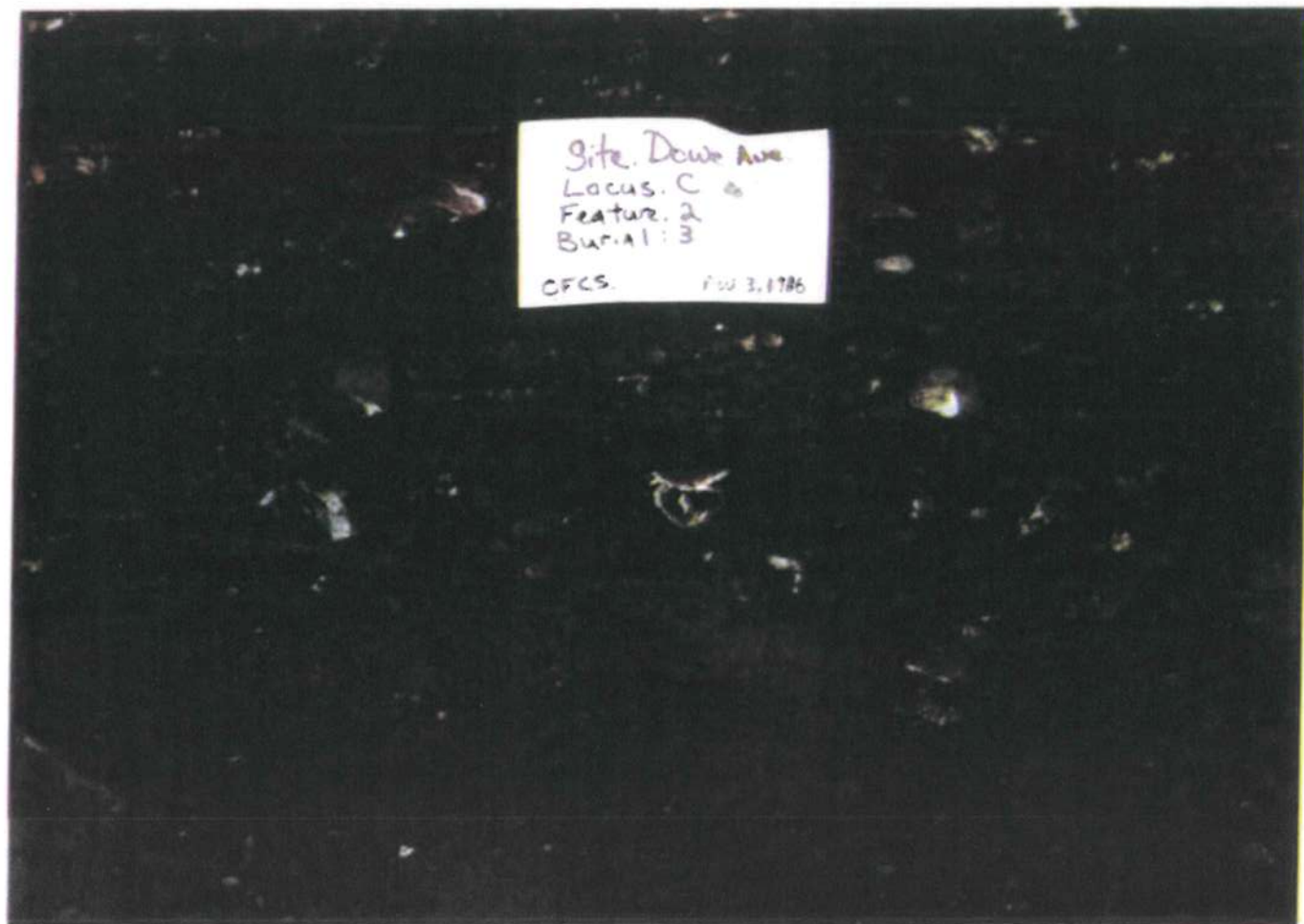
Burial 10 is represented by fragmentary skeletal remains of an adult. This individual may be a female(?). Pathologies include: marked osteoporosis throughout the skeleton, which includes fairly thin cortical bone and an marked increase in cancellous on all elements.

Burial 11 this individual is a sub-adult (infant) who died at the age of 1 - 1 1/2 years old. This age assessment is based upon the teeth present in the mandible and partial maxilla (lower and upper jaw). (Ubelaker, 1978).

Burial 12 is represented by approximately 10 skeletal elements which include: a distal end of a left humerus, diaphysial fragment of a tibia, left parietal cranial fragments, right lower maxillary fragment (including orbit) as well as assorted other fragments.



Ca-Ala-479 LOCUS B: BURIAL # 4



Ca-Ala-479 LOCUS C: BURIAL # 5

Locus J: represents two individuals that was recovered from a marginally in situ provenience.

Burial 13 is the remains of a very large male adult. This person had a robust mastoid process and humeral head. The skeleton is fairly complete. Pathologies include: a left eburnated scapula glenoid and corresponding head of left humerus. (This eburnated condition has been hypothesized to be the result of intensive activities that involve this portion of the body. Two activities are herein suggested: use of atlatl (spear thrower) as well as rowing of tule boats in the bay.) Additionally there is marked arthritis observable on vertebral bodies as well as all joint surfaces present.

Burial 14 is represented by an isolated element which is a complete scapula body from a human fetus.

Locus K: represents the recovery of two individuals from a possibly in situ provenience.

Burial 15 is a burial of a sub-adult (child) perhaps 7-9 years old based upon the presence of a lower 1st permanent premolar (unerupted) and lateral permanent incisors in the mandible. However, the right humerus associated with this person, measuring only 175mm., suggests a slightly younger age of 5 years. (Ubelaker, 1978).

Burial 16 is a very fragmentary adult individual represented by a one cranial fragment and a long bone fragment (humerus?).

Locus L: is a collection of skeletal remains of one individual that someone had collected and piled under a tree north of the site near where equipment scraping activities occurred.

Burial 17 is the remains of a adult male approximately 30 + years old at time of death. There is a remnant portion of a narrow sciatic notch on the innominate indicating this person was a male. The sagittal sutures are resorbed indicating age.

Locus M: is an isolated human tooth recovered during backhoe operations in the southwest portion of the site.

Burial 18 is a very slightly worn lower molar of a young adult.

Locus N: is represented by the recovery of two individuals scattered within the central area of construction.

Burial 19 has only several cranial fragments of an neonate (infant).

Burial 20 is an adult represented by a long bone (femur) diaphyses.



MRS. DOLORES S. FRANCO, OHLONE ELDER EXCAVATING BURIAL # 13 LOCUS J



COAL-170 LOCUS J. BURIAL # 13

Locus O: represents two individuals recovered from the western exterior of the construction site.

Burial 21 is only a few fragments of an adult.

Burial 22 is a cranial fragment of a infant.

Locus P: represents the remains of four individuals from an in situ burial context.

Burial 23 is represented by a fairly complete skeleton of a sub-adult (infant). The estimated age of this person is between 1 1/2 to 2 1/2 years old. Additionally, two charmstones and a spire-topped Olivella bead were in association.

Burial 24 represents a small collection of cranial and post-cranial bones of a young sub-adult. The estimated age of this infant is between 1/2 to 1 1/2 years old.

Burial 25 is a fairly complete adult female(?) skeleton. The estimated age of this person is 45 + years old. This estimate is based upon the presence of a pubic symphysis that was compared to the Suchey-Brooks aging model (corresponds to S-B number V or VI; maximum age range 26 to 87 years.). Pathologies include: hypertrophic bone reaction and a cystic lesion (inflammatory) on the 1st left metacarpal, and corresponding osteophytosis on joint surfaces.

Burial 26 consists of a fragmentary individual. Key skeletal elements include: partial mandible and teeth, and associated long bone fragments. Pathologies include: involvement of the sacro-iliac joint (non-degenerative joint disease).

Locus Q: is a non-human isolated find (see below).

Locus R: are two isolated elements presumably from the same individual.

Burial 27 is represented by an adult rib fragment and incomplete right humerus.

Locus S: is an isolated human element and charmstone

Burial 28 is represented by a sub-adult distal phalange.

Locus T: is an in situ burial of an infant.

Burial 29 is a fairly complete skeleton of a sub-adult (infant). The estimated age of this person is between 3 1/2 to 5 years old. Pathologies include: hypertrophic dentin(?) growth. The crown of right lower 1st pre-molar is deformed and there is no enamel on the crown surface.

Figure 3.

Locus U: after analysis proved to be a non-human long bone fragment isolate.

Locus V: is an isolated human cranial fragments found near Locus B.

Burial 30 are two cranial (occipital) fragments of an adult.

Locus W: is an isolated non-human bone.

Locus X: is an non-human mandible fragment.

Locus Y: is an isolated charmatone.

Locus Z: represents two individuals recovered from an impacted area on the northern exterior of the construction site.

Burial 31 is represented by several skeletal fragments of an infant including: six rib fragments and a scapula body with an unfused glenoid. The estimated age of this sub-adult is between 3-7 years old.

Burial 32 is represented by several bone fragments of an adult. These include: one robust occipital cranium fragment; one spinous process fragment and two thoracic(?) centrums (with some osteophytosis); a fragment from either a femur or tibia; and a long bone fragment from possibly an ulna(?)

Artifact/Ecofact Inventory: Marco-constituents

Locus A: Burials # 1 - 3.

Ref. #	Description	Material	Remarks
1-1	Core	Red Franciscan chert	In situ, pit 2
1-2	Pestle fragment	sandstone	distal end
1-3	Projectile point	obsidian (Napa)	basal/medial frag.
1-4	Charmstone	graywacke sandstone	ends broken.
1-5	<i>Ornament</i> <i>Ear Spool</i> <i>frag.</i> Charmstone frag.	achist?	spell
1-6	Olivella bead	shell	large saddle split chipped
1-7	Manuport	cinnebar breccia?	unmodified
1-8	Burnt clay		2 pieces, impressions
1-9	Cortical flake	brown Fran. chert	
1-10	Primary flake	Red Franciscan chert	
1-11	Primary flake	Quartz	
1-12	Chunk	brown banded chert	not Monterey chert
1-13	Mortar rim frag.	sandstone	see Locus H

	Shell Fish Remains	Common Name	# of pieces	Weight
1-14	Cerithidea californica	(Marsh Snail)	52	22.9 gr.
1-15	Ostrea lurida	(Bay oyster)	289	135.0 gr.
1-16	Fossilized Pecten/Scallop		1	2.5 gr.
1-17	Mytilus edulis	(Mussel)	5	1.1 gr.
1-18	Haliotis rufescens	(Abalone)	3	19.7 gr.
1-19	Macoma nasuta	(Clam)	3	1.2 gr.
1-20	Penitella gabbi?	(Boring clam)	22	4.1 gr.
1-21	Cancer sp.	(Crab)	4	.8 gr.

Fauna Remains

1-22 Deer, canis sp., rabbit, gopher, large fish, marsh birds (ducks and geese), others.

Locus B: In situ Burial # 4.

2-1	Mano	sandstone	bifacial, unshaped
2-2	Mortar rim frag.? <i>Cobble frag.</i>	sandstone	groundstone 8
	<u>Shell Fish Remains</u>	<u>Common Name</u>	<u># of pieces</u> <u>Weight</u>
2-3	Cerithidea californica	(Marsh snail)	4 1.3 gr.
2-4	Ostrea lurida	(Oyster)	46 14.0 gr.

Fauna Remains

2-5 deer, rodent, marsh birds

Locus C: In situ Burial # 5.

3-1	Cobble tool	sandstone	end battered
3-2	Cortical flake	andesite	unmodified
3-3	2 cobbles	sandstone	unmodified
3-4	Cooking stone	sandstone	burnt
3-5	Rotted redwood?	from insitu burial	
3-6	Artiodactyl (deer?)	long bone frag.	burnt
	No shell		

Locus D: Burial # 6.

4-1	Chertstone	sandstone	large, unfinished
4-2	2 cobble frags.	sandstone	unmodified
4-3	Pecked stone	sandstone	surface pecking
4-4	Rodent, rabbit? and	marsh birds	
	No shell		

Locus E: Burial # 7.

5-1 Human Crania Frags.
No other associations

Locus F: Burial # 8.

6-1	Charmstone	sandstone	Incipient manufacture
6-2	Ostrea lurida	(oyster)	2 pieces wt. 1.4 gr.
6-3	Artiodactyl (deer?)	mandible.	

Locus G Burial # 9.

7-1 Human innominate (acetabulum)
No other associations

Locus H: Non-burial locus.

8-1 Mortar fragments sandstone may be associated with
frag. from locus A.
No other associations.

Locus I: Burials # 10 - 12.

9-1	Net weight	sandstone	grooved
9-2	Pestle fragment	sandstone	distal end, large
9-3	Charmstone	sandstone	not fully shaped
9-4	Charmstone frag.	sandstone	distal end, crude
9-5	Groundstone spall	sandstone	body of charmstone?
9-6	Utilized flake	green Fran. chert	nibbling
9-7	Primary flake	quartz	
9-8	Primary flake	brown Fran. chert.	
9-9	Drill/borer	grey Fran. chert	use wear on bit
9-10	Cortical flake	white Fran. chert	
9-11	Assayed pebble	grey Fran. chert	
9-12	Primary flake frag.	Monterey chert	
9-13	^{striated} worked pebble	red Fran. chert?	striations hematite/cementite
9-14	4 cobbles	sandstone	unmodified
9-15	Nodule	grey chert	low grade
9-16	Split cobble	rhyolite	

<u>Shell Fish Remains</u>	<u>Common Name</u>	<u># of pieces</u>	<u>Weight</u>
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9-17	Cerithidea californica (Marsh snail)	83	43.6 gr.
9-18	Ostrea lurida (Oyster)	354	276.5 gr.
9-19	Mytilus edulis (Mussel)	5	1.5 gr.
9-20	Haliotis rufescens (Abalone)	1	.1 gr.
9-21	Macoma nasuta (Clam)	13	6.0 gr.
9-22	Penitella gabbi? Barnea Subtenuata	11	2.8 gr.

9-23	?	(Ridged clam)	2	.7 gr.
9-24	Balanus sp?	(Barnacle)	2	1.6 gr.
9-25	Cancer sp?	(Crab)	14	2.4 gr.

Fauna Remains

9-26 deer, elk, rodent, rabbit, marsh birds (ducks and geese), bat ray, fish and others.

Locus J: Burials # 13 - 14.

10-1	Awl tip	bone	polished
10-2	Antler tine tip	bone	pressure flaker
10-3	Split cobble tool	sandstone	weir on high facet
10-4	Groundstone spell	sandstone	pestle or charmstone
10-5	Utilized flake	chalcedony	unifacial nibbling
10-6	Cortical flake	quartz	
10-7	3 primary flakes	white Fran. chert	fragments
10-8	2 primary flakes	red Fran. chert	
10-9	2 primary flakes	grey/brown Fran. chert	
10-10	Pebble	banded chert	unmodified
10-11	2 cortical flakes	green Fran. chert	
10-12	5 pieces	serpentine	
10-13	45 cobbles & frags.	sandstone	
10-14	Resharpening flake?	obsidian	Napa

Shell Fish Remains Common Name # of pieces Weight

10-15	Cerithidea californica	(Marsh snail)	62	40.0 gr.
10-16	Ostrea lurida	(Oyster)	173	128.3 gr.
10-17	Mytilus edulis	(Mussel)	2	.8 gr.
10-18	Macoma nasuta	(Clam)	2	1.1 gr.
10-19	Penitella gabbii?	(Boring clam)	2	.4 gr.
10-20	Cancer sp?	(Crab)	4	1.0 gr.

Fauna Remains

10-21 deer, rodent, marsh birds

Locus K: Burials # 15 - 16.

11-1	Charmstone <i>Pack for</i>	sandstone	proximal end, pecked
11-2	Charmstone	sandstone	prox. end and body
11-3	4 Cobble fragments	sandstone	
11-4	Cerithidea californica	(Marsh snail)	4 pieces 2.3 gr.
11-5	Ostrea lurida	(Oyster)	24 pieces 14.4 gr.
11-6	Cancer sp?	(Crab)	1 piece .4 gr.
11-7	Bird bones		

Locus L: Burial # 17.

12-1	Modified flake	red Fran. chert	pressure flakes
12-2	2 cobble frags.	sandstone	
12-3	Cerithidea californica	(Marsh snail)	3 pieces 3.1 gr.
12-4	Ostrea lurida	(Oyster)	3 pieces 4.2 gr.
12-5	Bird bones		

Locus M: Burial # 18.

13-1 Human Molar
No other associations

Locus N: Burials # 19 - 20.

14-1	Ostrea lurida	(Oyster)	2 pieces 2.5 gr.
14-2	Bird and deer bones		

Locus O: Burials # 21 - 22.

15-1	Cerithidea californica	(Marsh snail)	5 pieces 2.5 gr.
15-2	Ostrea lurida	(Oyster)	9 pieces 3.2 gr.
15-3	Bird and deer bones		

Locus P: In situ multiple burials: # 23 - 26.

16-1	Charmstone	sandstone	Finished, asphaltum end
16-2	Charmstone frag.	sandstone	proximal end
16-3	Burnt clay	clay	
16-4	11 pebbles	sandstone	
16-5	Olivella bead	shell	spire lopped lb
16-6	Cerithidea californica	(Marsh snail)	1 piece .5 gr.
16-7	Rodent, bird and deer bones		

Locus Q: Non-burial locus.

17-1 Sharka tooth

Locus R: Burial # 27.

18-1	3 cobble frags.	sandstone
18-2	Bird bones	

Locus S: Burial # 28.

19-1	Charmstone	sandstone	distal/prox. ends gone
19-2	Core	brown Fran. chert	
19-3	Modified flake	Franciscan chert?	low grade
19-4	Nodule Striated pebble	Red ochre Hamada/units	striations

19-5	Primary flake	green Fran. chert	
19-6	Primary flake	black chert	
19-7	Chunk	Quartz in serpentine matrix	
19-8	Cobble	indurated sandstone	
19-9	4 cobble frags.	sandstone	
19-10	Ostrea lurida	(Oyster)	1 piece Wt. 2.7 gr.
19-11	Bird and deer bones		

Locus T: In situ Burial # 29.

20-1	Pestle	sandstone	Intact, shaped, pecked
20-2	Chunk	serpentine	Worked, striations
20-3	8 cobble frags.	sandstone	
20-4	4 pieces of tar?	asphaltum	Historic?
20-5	Cerithidea californica	(Marsh snail)	1 piece Wt. .55 gr.
20-6	Ostrea lurida	(Oyster)	4 pieces Wt. 1.65 gr.
20-7	Deer, bird bones and bat ray tooth.		

Locus U: Non-burial locus.

21-1 faunal bone.

Locus V: Burial # 30.

22-1 Human bone.

Locus W: Non-burial locus.

23-1 Bird bone (isolate)

Locus X: Non-burial locus.

24-1 Deer bone

Locus Y: Non-burial locus.

25-1	Charmstone	sandstone	prox. end broken
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Locus Z: Burials # 31 -32.

26-1

Isolates

27-1	Projectile point	obsidian	Napa, base.
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Locus AA - 28

Locus BB - 29

Locus CC - 30

Locus DD - 31

Locus EE - 32.

Prehistoric Implications

Although most of the burials and artifacts were recovered from within a disturbed context, burials from loci B, C, P and T were carefully excavated from their in situ provenience. These aforementioned burials were flexed and in random orientation, whereas the orientation of the burials from the remaining loci are completely unknown. However, regardless of the impacted state of these archaeological loci, several observations and inferences can be offered about the prehistoric lifeways represented at Ala-479.

Prehistoric Lifeways

We will start with the evidence of subsistence and economic patterns. Hunting activities are inferred by the presence of two basal portions of leaf shaped obsidian dart points (specimens 1-3 and 27-1). These dart projectile points presumably date to pre bow and arrow (circa 700 A.D.). The two specimens are spent, displaying impact fracture due to use. The obsidian has been visually identified as being from the Napa Glass Mountain source by Dr. Thomas Jackson. Obsidian has long been viewed as a major trade item throughout California. The three specimens of obsidian recovered from this site has been sent off for hydration studies at Sonoma State Archaeology lab. Several large utilized flakes made of local Franciscan cherts display characteristic use wear that may be associated with animal butchering activities. Additionally, a split cobble (specimen 10-3) with distinctive wear on the high facets may have been used for processing hides.

A diverse faunal assemblage (although not to date formally analyzed) offers additional information on the prehistoric lifeways at the site. The most predominant taxa of animals represented within the assemblage are avifauna (marsh/waterfowl, presumably ducks and geese). These waterfowl may serve as a seasonal indicator suggesting a winter hunting activity. A cursory review of the faunal remains reveal that deer, elk, sea otter?, canis sp?, other large canivores, gopher, ground squirrel, shark, bat ray, fish and shell fish are also present. Much of the faunal remains are burnt indicating that cooking and other domestic activities were carried on. Furthermore, the distal end of a highly polished bone awl (specimen 10-1) as well as an antler tine tool (specimen 10-2) were recovered from Locus J. Bone awls are usually associated with the manufacture of baskets and nets. Baskets were employed for almost all domestic and gathering activities including storage and cooking. These central Californian ancestral Ohlones made no pottery. Nets of the otherhand were also used for diverse purposes. Nets are usually thought to be associated with fishing activities, however, they were also used widely for efficiently snaring waterfowl in the marshlands as well. Netting of water fowl may be further supported by the recovery of a finely grooved sandstone netweight (specimen 9-1) found at Locus I. This net weight is very different from the pecked varieties found on ocean coastal sites (e.g. weights recovered from Ca-Sma-118; Hylkema, 1985b).

The antler tine tool displays wear patterns that may have resulted from pressure flaking. Pressure flaking is usually the final technique employed to finish flaked stone tools that require a specialized edge (e.g. projectile points, drills, scrapers and etc.).

Shell fish also contributed to the diet at Ala-479. A total of ten different genus of shell fish were identified. At least two or possibly a third are ocean derived. In order of prominence they are as follows: *Ostrea lurida* (Bay oyster), *Cerithidea californica* (marsh snail), *Penitella gabbi?* (Boring clam; this still has to be verified), *Cancer* sp? (Crab), *Macoma Nasuta* (Clam), *Mytilus edulis* (mussel), *Haliotis rufescens* (Red abalone; ocean derived, probably traded), *Olivella biplicata* (Purple olive shell; two specimens - Locus A, specimen 1-6, saddle bead and from Locus P, in situ burials, specimen 16-6, spire-lopped bead), *Balanus* sp? (Barnacle), and Ridged clam. A fossilized scallop or pecten was also recovered as well. (see appendix IV for shellfish data).

Other artifacts that reflect subsistence activities include groundstone tools. Three types of groundstone tools have been identified: mortars, pestles and a mano.

Mortars are used in conjunction with pestles to process an assortment of foods by pounding and grinding. Several mortar fragments were recovered probably represent three or four separate vessels. A mortar fragment was collected from Locus A (specimen 1-13). This large rim fragment may be associated with the many fragments from Locus H (specimen 8-1). Locus H mortar fragments represent a very large boulder mortar of greenish sandstone. Locus B (specimen 2-2) also yielded a small mortar rim fragment of brown sandstone.

Pestles are used in conjunction with mortars. They are usually made from naturally occurring oblong cobbles of suitable size and shape. Pestles are generally used to pulp and mash various kinds of foods especially acorns. This is accomplished by using an up and down as well as a rotating motion. A total of four specimens were recovered. Locus A (specimen 1-2) is a distal end of a sandstone pestle, Locus I (specimen 9-2) is also a distal end of a large pestle, Locus K (specimen 11-1) is a proximal end of a shaped pestle and Locus T (specimen 20-1) is an intact shaped sandstone specimen.

Manos are usually used to process hard seeds on a flat stone grinding slab sometimes called a metate. Only one mano (specimen 2-1) was recovered from Locus B. It is bifacially ground and made on a sandstone cobble.

Another class of ground/pecked stone are charmstones. Although there is still much speculation concerning these enigmatic objects they are generally thought to be associated with hunting magic, luck, fishing, control over the elements and etc..

A total of eleven charmstones were recovered and based upon the degree of crudeness and finish we believe that they were manufactured on site. The following represents their distribution. Locus A (specimen 1-4), graywacke

sandstone, ends are broken and specimen (1-5), spall; Locus D (specimen 4-1), very large, ends broken; Locus F (specimen 6-1), incipient chertstone, abandoned; Locus I (specimen 9-3), very large, ends broken and (specimen 9-4), distal end, crude; Locus K (specimen 11-2), proximal end and body; Locus P (specimen 16-1), finished, highly ground with asphaltum on proximal end and (specimen 16-2) proximal end with asphaltum residue. Both specimens associated with infant burial; Locus S (19-1) large pecked chertstone, ends broken; and Locus Y (specimen 25-1) partially finished, proximal end broken.

Several additional artifacts of interest include: an red ochre clump with striations (specimen 19-4) from Locus S. Red ochre was also noted of the right side of the adult cranium recovered Locus A; a large serpentine chunk (specimen 20-2) which appear to have been partially modified was found at Locus T; and finally a small surficially pecked sandstone cobble fragment (specimen 4-3) from Locus D and an end battered sandstone cobble fragment (specimen 3-1) from in situ burial at Locus C.

In conclusion a great deal has been potentially learned from these investigations. Although there are no formal dates for this site perhaps sufficient funds can be acquired to run at least two C-14 radiocarbon dates. Results of the obsidian hydration measurements will be forthcoming and attached to this report. An estimated date when this site was occupied is from about A.D. 0 to A.D. 700. This is partially based upon the presence of the projectile point types and well as other intuitive indicators. A detailed faunal analysis may also be forthcoming as part of a volunteer effort to analyze the data generated from this recovery process.

Future Management Recommendations

Because site Ca-Ala-479 is now known to be a fairly extensive prehistoric occupation village. However, due to the considerable amount of earthmoving construction that took place prior to knowledge that this site was present, the boundaries are impossible to define. Union City Industrial Partners are currently considering to develop the adjacent parcel of land immediately to the south of the present warehouse facility. It is the recommendation by Ohlone Family Consultant Services that the following procedures be considered prior to any construction activities:

A) A complete EIR should be conducted on this parcel of land. This parcel should be considered as highly sensitive and therefore appropriate mitigation procedures should be defined by the Union City Planning Department.

B) The Archaeological aspect of the EIR should include the following three phases:

1. On site survey and inspection for surface manifestations.
2. A effective monitoring agreement be worked out prior to any subsurface excavation by heavy equipment.

3. Upon the discovery of any human remains or subsurface features, an archaeological crew be allowed to carefully hand excavate and remove the remains.
4. A provision be made for sufficient funding for complete analysis and scientific study of all materials and human remains recovered.
5. An area be designated for reburial of the human remains and associated grave goods.
6. Optional provision: funds be made available to create a public display in Union City from the archaeological materials not reburied.

Bibliography

- Anonymous
1904 History of Washington Township. Compiled and Written by: The Country Club of Washington Township Research Committee. Second Edition. 1950.
- Atwater, B.f., Hedel, C.W., and E.J. Helley
1976 Late Quaternary Depositional History, Holocene Sea Level Changes, and Vertical Crustal Movement, Southern San Francisco Bay, California, U.S. Geological Survey Professional Paper 1014.
- Barbour, M.G. and J. Major (Eds.)
1977 Terrestrial Vegetation of California, John Wiley and Sons, Inc., New York.
- Bass, W.M.
1971 Human Osteology: A Laboratory and Field Manual of the Human Skeleton. Columbia, Missouri: Missouri Archaeological Society.
- Bolton, H.E.
1927 Fray Juan Crespi; Missionary Explorer On the Pacific Coast, 1769-1774. University of California Press, Berkeley.
- 1930 Anza's California Expeditions. (4 Vols.) University of California Press, Berkeley.
- Cook, S.F.
1960 The Aboriginal Population of Alameda and Contra Costa Co., California. University of California Anthropological Records; Vol.16 No. 4., Berkeley.
- 1976 The Conflict Between the California Indians and White Civilization. University of California.
- Desgrandchamp, C.S.
1976 Estuary Exploitation In Aboriginal California. Unpublished M.A. thesis, Department of Anthropology, San Francisco State University.
- Dietz, Stephen
1985 Archaeological Data Recovery Program At Ca-Ala-453, Union City, California.
- Fages, P.
1911 Expedition To San Francisco Bay In 1770, Diary Of Pedro Fages. In: Publications of Pacific Coast History. 2:4.

- Hall, Jeffrey
1985 Results Of An Archaeological Subsurface Testing Program At Ca-Ala-343, Fremont, California. Ms. on file at San Jose State University.
- Harrington, J.P.
1942 Cultural Element Distributions, XIX: Central California Coast. University of California Anthropological Records 7(1):1-46.
- Hylkema, Mark G.
1985a Ethnographic Background. In: Results Of An Archaeological Subsurface Testing Program At Ca-Ala-343, Fremont, Ca.. J. Hall (Ed.). Ms. on file at San Jose State University.
- Hylkema, Mark G.
1985b The Archaeological Excavation of Ca-SMa-118, Bean Hollow State Beach, San Mateo County, Ca. Ms. on file at State Parks and Recreation, Sacramento, Ca.
- Kroeber, A.L.
1962 The Nature of Landholding Groups in California. University of California Archaeological Survey Reports 56:19-58.
- Kuchler, A.W.
1977 Natural Vegetation of California (map). In: Terrestrial Vegetation of California, Edited by M.G. Barbour and J. Major. John Wiley and Sons, Inc., New York.
- Milliken, R.
1981 The Prehistoric Inhabitant of the Richmond Area. In: Investigations of Cultural Resources Within the Richmond Harbor Project, Contra Costa County, Ca.. Banks and Urlins eds.
- Thompson and West
1878 Historical Atlas of Alameda County, California. Reprinted by Smith and McKay Printing Co., San Jose, 1973.
- Ubelaker, D.H.
1978 Human Skeletal Remains: Excavation, Analysis, Interpretation. Chicago: Aldine Publishing Co.

ARGUS

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ing Fremont, Newark, Union City and Milpitas, California

Thursday, November 20, 1980

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— back of section
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— page 12

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Nick Lammers — staff photo

Dr. Thomas Rogers views the bone fragments as Deputy Coroner Jimmy Smith looks on.

Bones found at building site Expert says remains are from Ohlone Indians

By Ken Leiser
Staff writer

UNION CITY — Construction workers have unearthed human bone fragments believed to be Ohlone Indian remains, forcing city officials to temporarily halt work Wednesday on a \$10 million Dowe Street warehouse.

"It's an Indian site, no doubt about it," said Robert Cartier, a San Jose archaeologist called to the site Wednesday morning.

Cartier was joined at the construction site by a pathologist from the Alameda County Coroner's office and a representative from the Native American Heritage Society, who inspected the two piles of bone fragments.

"I think that's a human bone," said pathologist Thomas Rogers, plucking a 6-inch segment of bone from one of the piles. "It looks like a humerus (arm bone) to me."

Rogers later confirmed the bones were human. Cartier said the site may have once been inhabited by an Ohlone community of 25 to 60 Indians. Cartier found some scattered "fire crack rock," a type of sandstone commonly found at Indian sites, and a few discarded animal bones.

The bone fragments were found by a construction worker Monday afternoon at 33201 Dowe St., where a 300,000-square-foot, U-shaped industrial warehouse is being built. The property is being developed by Union City Industrial Partners.

See Bones, back of section

merican government teacher at Amador Valley High School, watch Reagan's press conference.

Reagan remarks contradict his aides, Democrats say

security adviser, and d Reagan.

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From staff and wire reports

WASHINGTON — Democratic leaders charged Wednesday that President Reagan contradicted his aides in his latest explanation of U.S. arms shipments to Iran, and called for a revamping of U.S. foreign policy.

Reagan appeared Wednesday night at a nationally televised news conference that was dominated by one issue — the arms deals with Iran.

Sen. Sam Nunn, the ranking Democrat on the Armed Services Committee and one of the Senate's most respected defense experts, said, "The president contradicted all the information put out by his aides in the past week."

Nunn told NBC, "I counted at least seven contradictions from what I have been told by his top aides."

"We have a foreign policy that's in serious disarray and it's time to take some strong steps," Nunn said. He called for the appointment of a group of "wise men and women" to "take a look at what has been happening."

Rep. Don Edwards, D-San Jose, blasted Reagan for consulting only

"inexperienced and incompetent" staff members for advice on whether to send arms to Iran.

Further, said the congressman whose district includes Fremont, Reagan's secret arms deal is a message to terrorists that "we will trade arms for hostages."

He said the deal could promote the taking of American hostages.

"Perhaps the president has learned a lesson, though," Edwards said. "That he shouldn't use an inexperienced and incompetent person like (National Security Adviser) Adm. John Poindexter to run foreign affairs."

Sen. Richard Lugar, R-Ind., chairman of the Foreign Relations Committee and one of the strongest White House supporters in the Senate, said of the administration's failure to inform Congress about the arms sales, "I suspect that the president does not understand the law with regard to informing Congress on these things." He welcomed Reagan's promise Wednesday night to give Congress those details.

Lugar also called for a reorganization of the administration's structure for deciding foreign policy.

Lugar told NBC that the National

Security Council "ought to know its place" and that the secretary of state "has to be the chief person in foreign policy."

Sen. Robert Byrd, D-W.Va., in line to become majority leader when the new Congress convenes in January, said, "The American people don't want any more excuses. The fastest way for President Reagan to become a lame duck is for the president to keep making excuses."

"I think it was a terrible mistake," Sen. John Glenn, D-Ohio, said during an interview on the Cable News Network. "A series of one blunder after another. You can't continue to deceive the American people and expect us to trust him."

"My belief is that a mistake was made," said Simon, "procedurally because there's a real question of the conduct of foreign policy in the administration ... I think we have to take a look at who's in charge of foreign policy in the White House."

Sen. Larry Pressler, R-S.D., during another CNN interview, defended Reagan, saying, "I'm not saying everything he did was perfect, but he was trying to do the best he could."

Is

OK Pleasanton teachers' pacts

Pleasanton school boards both voted unanimously approve contracts with the Amador Valley Teachers' the elementary union — and the Amador Valley Damerval was absent. Under the new agreements, the association extended its contract one year and the high egotiated a two-year contract, which means the two nions will be negotiating full contracts at the same settlements expire in June 1988.

ban rift blocks counties' funds

initiative that would have forced the state to assume welfare, jail and the courts was put on the back burner rift between urban and rural counties developed over roposal, which was backed by Stanislaus and other hit hard by the fiscal drain of those state-mandated he urging of representatives from the large urban y committee of the County Supervisors Association of ed a provision supporting the initiative idea from a

Bones

Continued from page 1

About 60 workers were sent home Wednesday morning because of a stop-work order issued by City Engineer Marvin Rose late Tuesday afternoon. Six pieces of heavy construction equipment sat idle on the construction site Wednesday.

The target date for the building's completion is April 1, said project manager David Boras.

Some of the bones were found in a narrow 7-foot trench that was carved to make room for electrical wiring, Boras said. Other bones were scattered within the excavated construction site.

"Needless to say, some of the workers overlooked the fact that they were exposed," said Rosemary Cambra, an Ohlone Indian descen-

"As you can see, they were not properly treated or respected.

"To see them scattered like this ... there is no reason for it."

Cambra said she will sit down with the developer and devise a plan to remove the Indian remains and re-bury them.

"He is being very cooperative, very sensitive," Cambra said. "And he is following the law."

The city did not require the developer to conduct an archaeological study when the warehouse project was approved more than a year ago, said Mark Leonard, community development director. It is not known if a study was conducted before construction began.



Ohlone Families Consulting Service

ELDERS:

November 23, 1968

Trinidad Rauno

Joe Rauno

Enos Sanchez

Robert Sanchez

Dolores S. Franco

Margret S. Martinez

Ruth Orta

Mr. David G. Boras
Project Manager
528 Arizona Ave. Suite 206
Santa Monica, CA 90401

Re: National Distribution Agency, Dowe Ave., Union City.
Ohlone Family Consulting Services (OFCS) Preliminary
Survey Report- Phase I.

INTRODUCTION

The following section describes the results of the preliminary archaeological field reconnaissance. Because human remains have been identified on the parcel there is a high probability that further remains may be encountered during the course of subsurface construction. The goal of this phase is to locate areas of potential sensitivity and present recommendations for monitoring and excavation.

METHODS

A pedestrian survey of the parcel was conducted on Nov. 21, and Nov. 22, during which stratigraphic soil profiles were examined and areas with prehistoric cultural material were plotted on a site map. This field map designates areas where monitoring should be required and where human bone has been found.

Monitoring requires that a monitor examine subsurface construction while in progress and halt further activity when remains are found. At that point a decision must be made as to the need for mitigation or avoidance.

RESULTS

The Northwestern section of the parcel appears to be highly sensitive. Remains were encountered during trenching operations and the soil profile in the area reveals thermally affected rock, shell fragments, and bone. This area is sketched on the parcel field map and monitoring is required

here. (Refer to Exhibit A). Borrowed soil from a ten foot deep area in the Southwestern section of the parcel by rail line was used in the construction of the pad. Evidently, cultural materials derived from this process are spread throughout the pad.

RECOMMENDATION

The following recommendations are that trenching in the pad be monitored as well as the intact native soils were indicated on the field map. A retaining wall scheduled to be constructed along the Northern perimeter of the parcel (Locus C on the map) may impact cultural remains and therefore, it is recommended for excavation and monitoring. Monitor(s) shall be provided with trenching schedule and any week to week schedule changes. Further evidence of cultural remains are located on Locus B and Locus A on map and are also recommended for excavation and monitoring.

APPENDIX III

HUMAN SKELETAL INVENTORIES

SAN JOSE STATE UNIVERSITY
ANTHROPOLOGY LAB

HUMAN SKELETAL INVENTORY

Site ALA-479 Feature _____ Date 12/21/86
Burial No. 1 Provenience Locus A (Pi+2) Recorder Laura M. Ford-Lemos

Sex (criteria used) male (?) - large femoral heads (Ubelater)

*[Sciatic notch wide-ish - may not belong to same individual]
robust femoral and long bone fragments, heavy zygomatic arch.

Age (criteria used) adult 30+

Condition of Skeleton Fragmentary, but elements identifiable - many smaller elements complete. Bone cortex good.

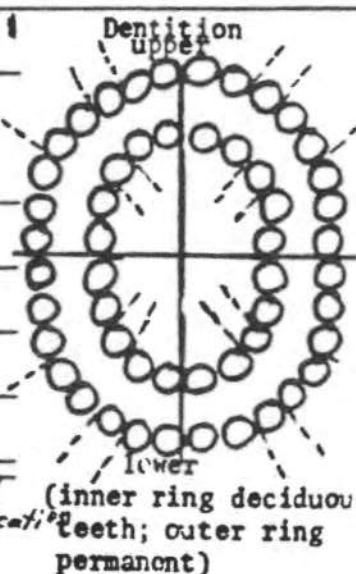
Cranium Fragmentary - *temporal; mastoid; petrous, squamous; zygomatic arches (left attached) occipital frags, *temporal frags are ochre-stained

Mandible —

Hyoid —

Loose Teeth 3 . canine? molar 3rd molar

* extreme wear on both occlusal surfaces & roots make identification difficult.



Vertebrae

Cervical

Thoracic T-1(?) resorptive lesion.

Lumbar Frags.

Sacrum Fragmentary

KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
if bone is complete but in pieces indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site ALA-479 Feature _____ Date 12/21/86
Burial No. 2 Provenience Locus A Recorder Laura M. Ford-Lemas

Sex (criteria used) indeterminate. possibly(?) female - bone
far more gracile than adult male samples.

Age (criteria used) adult

Condition of Skeleton - isolated element - cortex good.

Cranium -

Mandible -

Hyoid -

Loose Teeth -

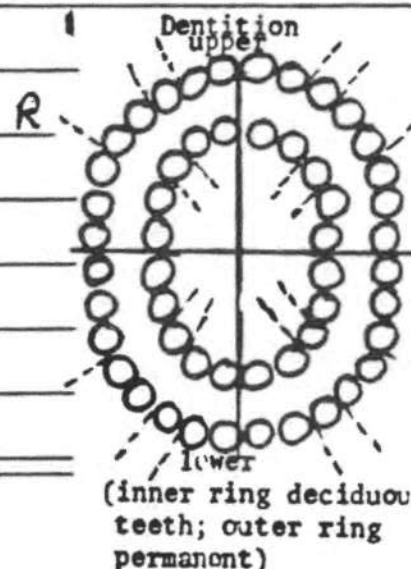
Vertebrae

Cervical -

Thoracic -

Lumbar -

Sacrum -



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces. indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/21/86
Burial No. 3 Provenience Locus A Recorder Laura A. Ford-
Sex (criteria used) indeterminate

Age (criteria used) infant - cremated

Condition of Skeleton skeleton was cremated - 3 isolated elements present.* Cremation process has considerably altered bone density and interior bone surface

Cranium —

Mandible —

Hyoid —

Loose Teeth —

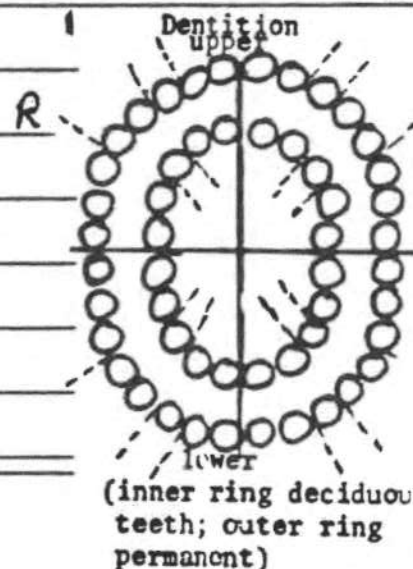
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/17/86
Burial No. 4 Provenience Locus B Recorder Laura M. Ford-Lemos
Sex (criteria used) male(?) see below

Age (criteria used) adult 30+

Condition of Skeleton highly fragmentary, but large, intact, identifiable pieces remain. The bulk of this skeleton is "bone meal" - lots of exposed cancellous bone. Better part of damage to skeleton is due to its being run over by heavy equipment.

Cranium massive mastoid processes, frontal prominent brow ridges, right maxillary frag - 2 teeth present

Mandible

Hyoid

Loose Teeth 7.

Vertebrae

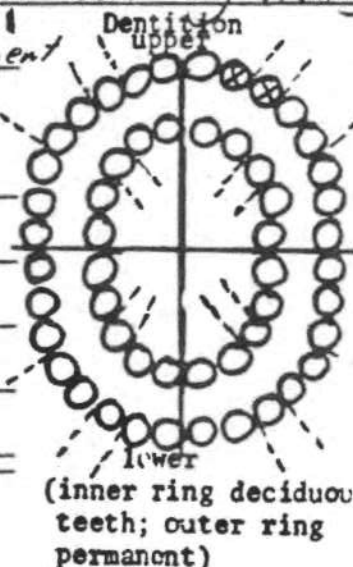
Cervical

Thoracic

Lumbar

Sacrum

1 coccyx vertebra



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site ALa-479 Feature _____ Date 12/21/86
Burial No. 5 Provenience Locus C Recorder Laura M. Ford-Lemos

Sex (criteria used) indeterminate.

Age (criteria used) adult.

Condition of Skeleton highly eroded; heavy rodent impactation.

Cranium —

Mandible —

Hyoid —

Loose Teeth —

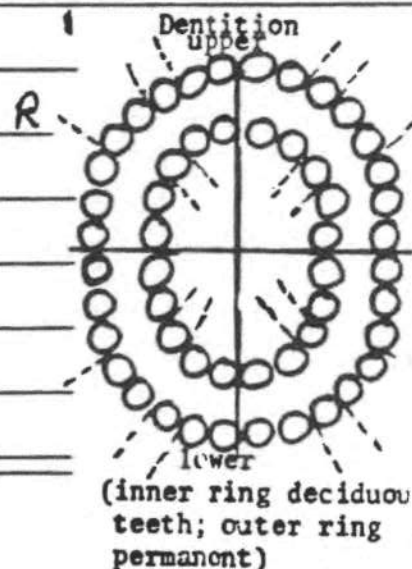
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



1 frag. possibly from coccyx.

KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 6 Provenience Locus D Recorder Laura M. Ford-Lemos

Sex (criteria used) male(?) very robust pollux, long bones.

Age (criteria used) adult

Condition of Skeleton fragmentary

Cranium fragments, occipital, parietal: *
sutures (sagittal) almost completely
resorbed

Mandible —

Hyoid — Loose Teeth —

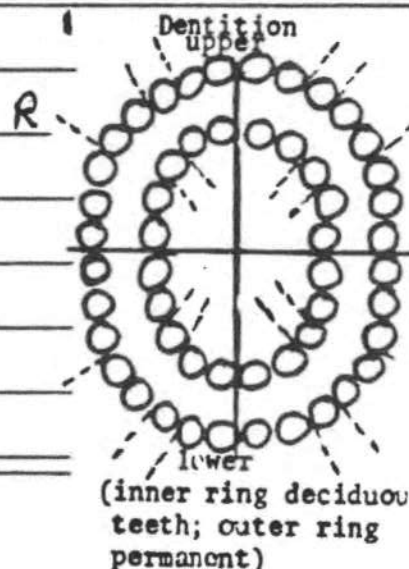
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 7 Provenience Locus E Recorder Laura M. Ford-Lemos
Sex (criteria used) indet.

Age (criteria used) adult

Condition of Skeleton isolated element - bone in good shape -
no cortical loss etc.

Cranium fragment of right parietal

Mandible -

Hyoid -

Loose Teeth -

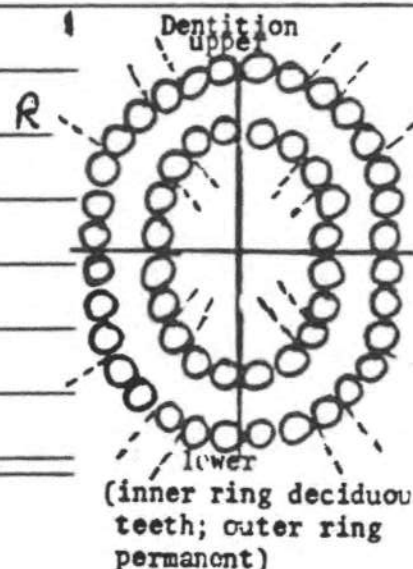
Vertebrae

Cervical -

Thoracic -

Lumbar -

Sacrum -



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86

Burial No. 8 Provenience Locus F Recorder Laura M. Ford-Lemos

Sex (criteria used) indeterminate

Age (criteria used) adult

Condition of Skeleton isolated fragments.

Cranium 5 cranial frags - small

Mandible -

Hyoid - Loose Teeth -

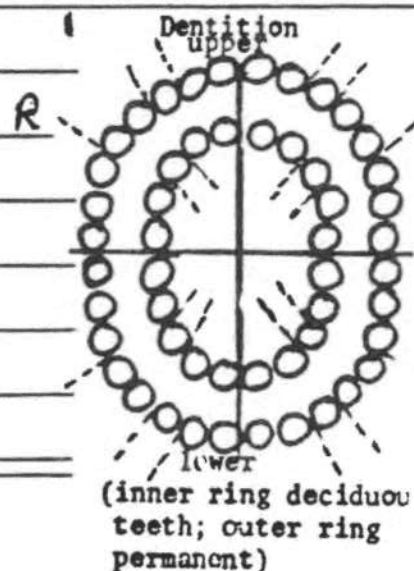
Vertebrae

Cervical -

Thoracic -

Lumbar -

Sacrum -



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/21/86
Burial No. 9 Provenience Locus G Recorder Laura M. Ford-Lemos

Sex (criteria used) indeterminate

Age (criteria used) adult

Condition of Skeleton 1 isolated element cortex pair.

Cranium -

Mandible -

Hyoid -

Loose Teeth -

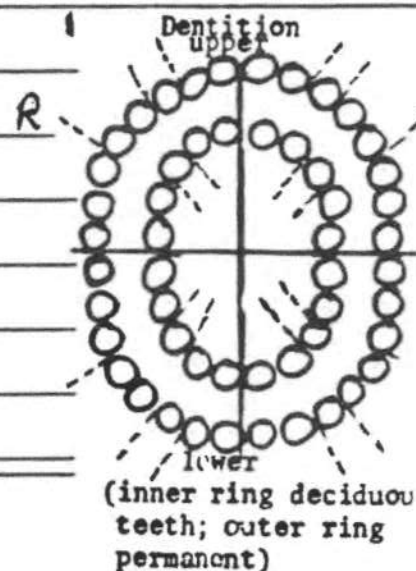
Vertebrae

Cervical -

Thoracic -

Lumbar -

Sacrum -



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 10 Provenience Locus I Recorder Laura M. Ford-Lemos
Sex (criteria used) female(?) bones fairly gracile

Age (criteria used) adult

Condition of Skeleton Fragmentary - when elements are complete, they're in good shape, but most bone is just 'meal'.

Cranium frags - parietal.

Mandible

Hyoid

Loose Teeth

Vertebrae

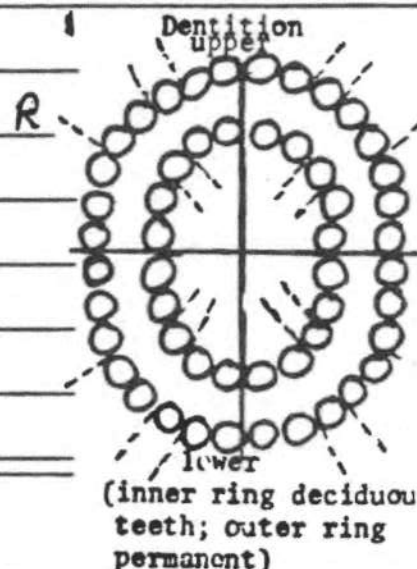
Cervical 2 → C 3-6 "rimming" on body of one, 2nd body is depressed

Thoracic —

Lumbar —

Sacrum —

vertebral frags - indeterminate as to C, T or L.



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 4/21/86
Burial No. 11 Provenience Locus I Recorder Laura M. Ford-Lemos

Sex (criteria used) indet.

Age (criteria used) sub-adult 1-1 1/2 yrs (Ubelaker)
upper 1st deciduous molars erupting (lower not)

Condition of Skeleton Fragmentary

Cranium lateral condyles unfused - vault frags.

Mandible C - missing condyles & some teeth

Hyoid — Loose Teeth 1 canine unerupted - roots not fully formed

Vertebrae

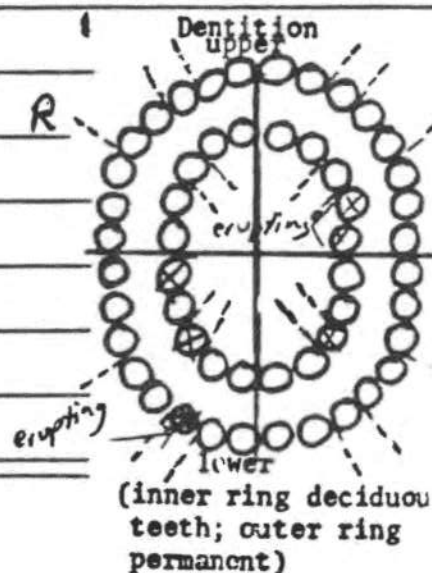
Cervical

Thoracic

Lumbar

Sacrum

centrum - indet.



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/21/86
Burial No. 12 Provenience Locus I Recorder Laura M. Ford-Lemos
Sex (criteria used) indet.

Age (criteria used) adult

Condition of Skeleton Fragmentary

Cranium Frags - orbit (frag) left parietal

Mandible —

Hyoid —

Loose Teeth —

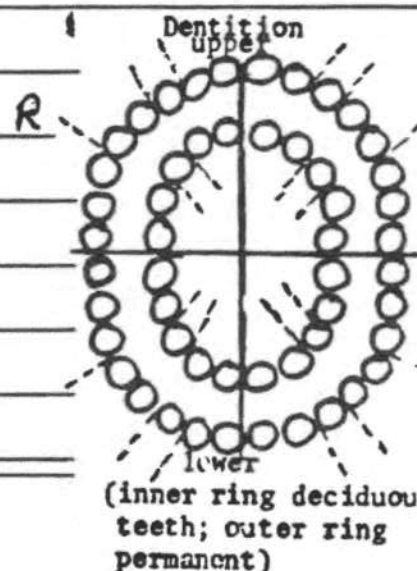
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 13 Provenience Locus J Recorder Laura M. Ford-Lemos
Sex (criteria used) male - robust, big mastoid, large humeral head

Age (criteria used) adult.

Condition of Skeleton Fragmentary

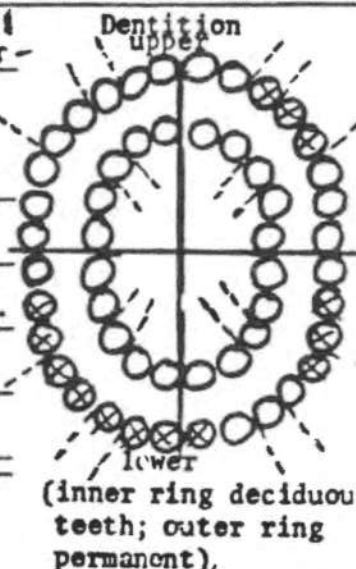
Cranium maxilla frag w/ 3 teeth present, heavy mastoid process, frags of temporal, frontal & R parietal.

Mandible complete except for missing teeth & condyles.

Hyoid — both missing Loose Teeth 2 molars → 1 an upper (don't fit into any socket on lower jaw; 1 indet.) & 1 caninid frag - is either a juvenile or supernumerary tooth.

Vertebrae

Cervical centrums & some frags; none positively identifiable as to #.
Thoracic one T (?) vertebra has fused (heavily damaged by equipment) to next
Lumbar lower vertebrae
Sacrum



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/21/86
Burial No. 14 Provenience Locus J Recorder Laura M. Ford-Hemas

Sex (criteria used) indet.

Age (criteria used) pre-natal (fetal)

Condition of Skeleton isolated element. given how fragile this bone usually is, preservation is remarkable.

Cranium —

Mandible —

Hyoid —

Loose Teeth —

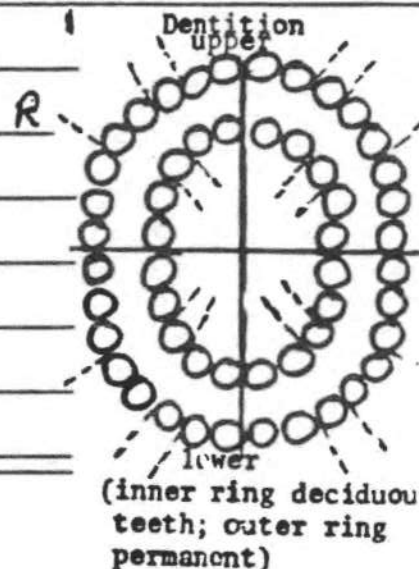
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces. indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 15 Provenience Locus K Recorder Laura M. Ford-Lemas

Sex (criteria used) indet.

Age (criteria used) 7-9 yrs. → permanent unerupted 1st lower premolar - lateral permanent incisors. humerus 175mm - doesn't correlate w/ dental patterns - puts age @ about 5

Condition of Skeleton

Cranium

Mandible left condyle + ascending ramus

Hyoid

Loose Teeth upper rt. central incisor.

Vertebrae

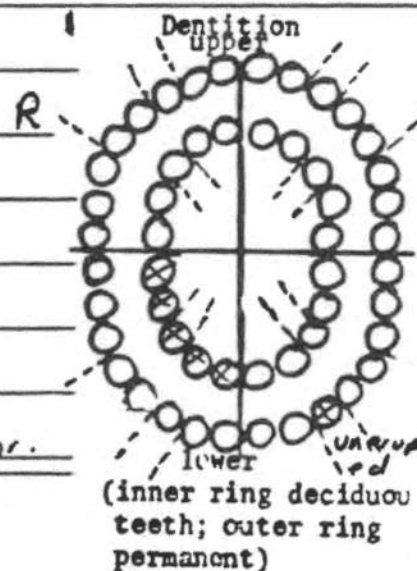
Cervical

Thoracic

Lumbar

Sacrum

2 spinous + transverse processes (fused)
no Centrum.



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/01/86
Burial No. 16 Provenience Locus K Recorder Laura M. Ford-Lemos
Sex (criteria used) indet.

Age (criteria used) adult

Condition of Skeleton Fragmentary - several isolated elements.

Cranium —

Mandible —

Hyoid —

Loose Teeth —

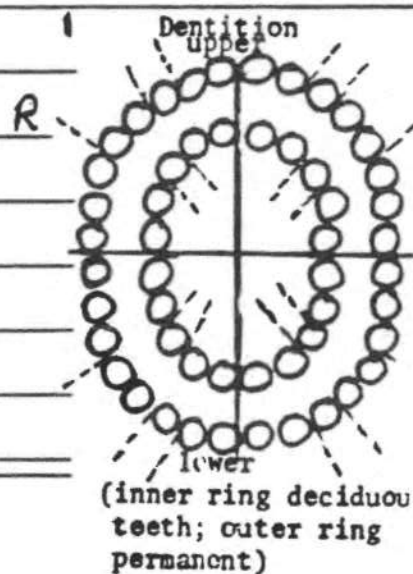
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces indicate this: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

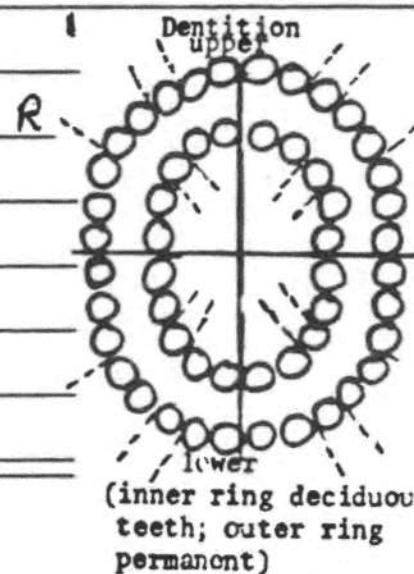
Site Ala-479 Feature _____ Date 12/21/86
Burial No. 17 Provenience Locus L Recorder Laura M. Ford-Lemos

Sex (criteria used) male - narrow sciatic notch.

Age (criteria used) adult 30+

Condition of Skeleton isolated elements

Cranium sagittal sutures resorbed
vault inc.



Mandible -

Hyoid - Loose Teeth -

Vertebrae

Cervical -

Thoracic -

Lumbar -

Sacrum -

KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
if bone is complete but in pieces indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/2/86
Burial No. 18 Provenience Locus M Recorder Laura M. Ford-Lemos

Sex (criteria used) indet.

Age (criteria used) indet - not a small infant

Condition of Skeleton isolated element

Cranium —

Mandible —

Hyoid —

Loose Teeth 1 - 1st upper molar.

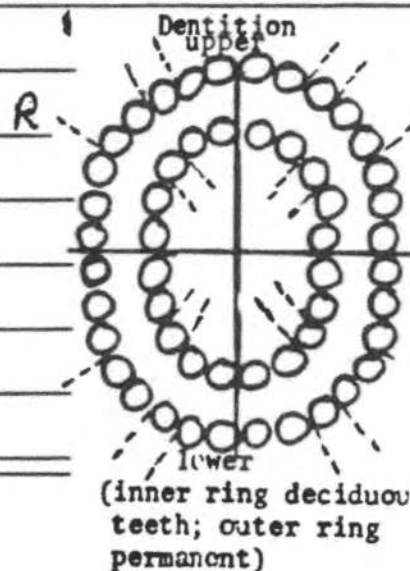
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 19 Provenience Locus N Recorder Laura M. Ford-Lena
Sex (criteria used) indet.

Age (criteria used) infant

Condition of Skeleton 5 elements. - all cranial

Cranium Frags 1 right orbit (frag)
occiput - inc.

Mandible —

Hyoid —

Loose Teeth —

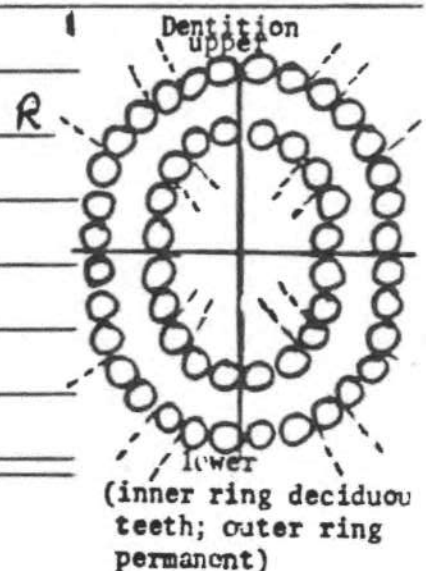
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
if bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/21/86
Burial No. 20 Provenience Locus N Recorder Laura M. Ford-Lemos

Sex (criteria used) adult

Age (criteria used) indet

Condition of Skeleton Fragmentary

Cranium —

Mandible —

Hyoid —

Loose Teeth —

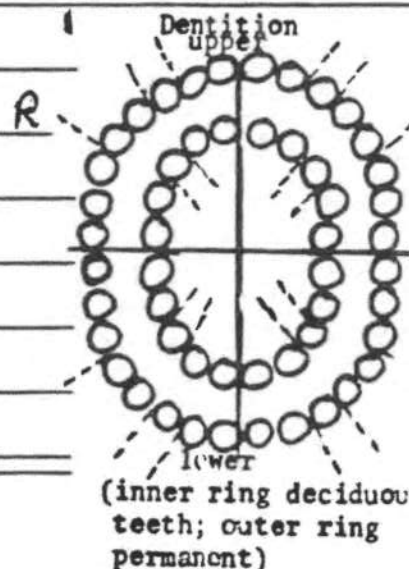
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____

Date 12/21/86

Burial No. 21 Provenience Locus 0

Recorder Laura M. Ford-Lemos

Sex (criteria used) indet.

Age (criteria used) adult

Condition of Skeleton rib fragment.

Cranium -

Mandible -

Hyoid -

Loose Teeth -

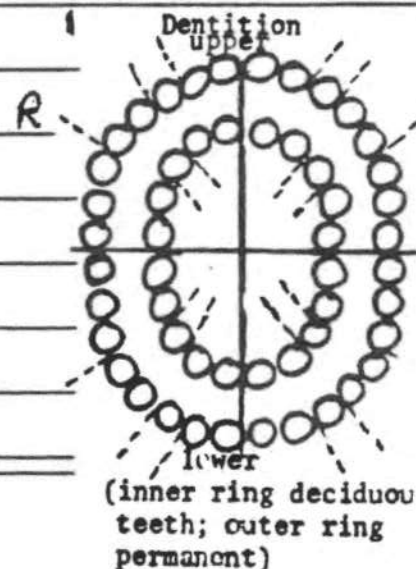
Vertebrae

Cervical -

Thoracic -

Lumbar -

Sacrum -



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
if bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 22 Provenience Locus  Recorder Laura M. Ford-Lemes
Sex (criteria used) indet.

Age (criteria used) infant

Condition of Skeleton 1 fragment.

Cranium cranial frag. occipital.

Mandible —

Hyoid — Loose Teeth —

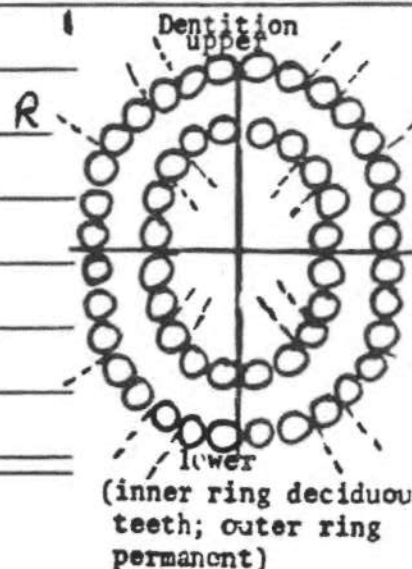
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 23 Provenience Locus P Recorder Laura M. Ford-Lemos
Sex (criteria used) indet

Age (criteria used) 1 1/2 - 2 1/2 based on length of long bones (Ubelake) tooth eruption adds this slightly older-

Condition of Skeleton Fairly complete - cortex good

Cranium vault almost complete, but in pieces
some torsion (ground pressure) of base, left R maxilla (3 teeth intact) right maxilla, 3 sockets.

Mandible complete except for broken condyles & missing rear.

Hyoid _____ Loose Teeth 2- 1 yr. upper central incisor, 1 unerupted molar

Vertebrae

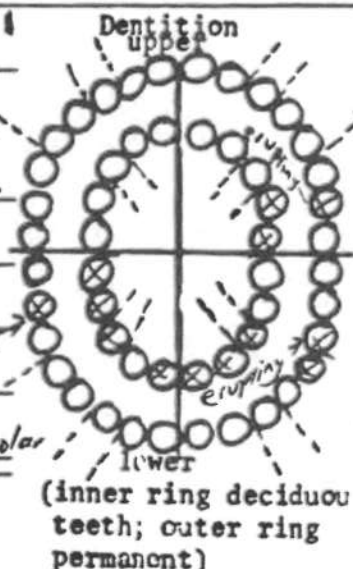
Cervical

Thoracic

Lumbar

Sacrum

spinous & transverse processes fused - no centilums



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/21/86
Burial No. 24 Provenience Locus P Recorder Laura M. Ford-Lemos
Sex (criteria used) indet.

Age (criteria used) 1/2 to 1 1/2 yrs. (length of long bones [Ubelakur])

Condition of Skeleton Fragmentary, but bones that are present are in good to excellent condition

Cranium occipital, left temporal, orbits (frag)

Mandible _____

Hyoid _____

Loose Teeth _____

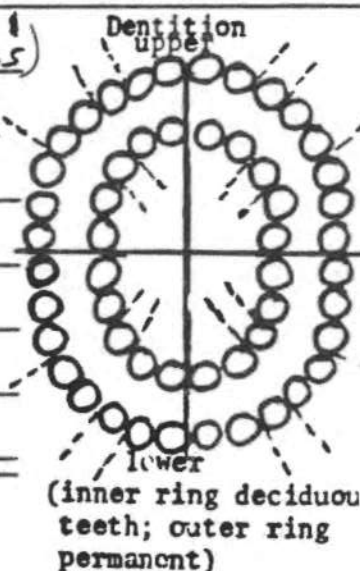
Vertebrae

Cervical _____

Thoracic _____

Lumbar _____

Sacrum _____



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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ANTHROPOLOGY LAB

HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/21/86
Burial No. 25 Provenience Locus P Recorder Laura M. Ford-Lemos
Sex (criteria used) female - pubic symphysis

Age (criteria used) adult 45+, probably 50+ - Suchey-Books models (is a II or III - range 26yrs to 87yrs)
rest of skeleton also suggests advanced age
Condition of Skeleton broken, but fairly complete.

Cranium frags. frontal - right - orbit, parietal

Mandible C except for left condyle.
many tooth sockets have been resorbed

Hyoid — Loose Teeth 4 - 'pegs'

Vertebrae

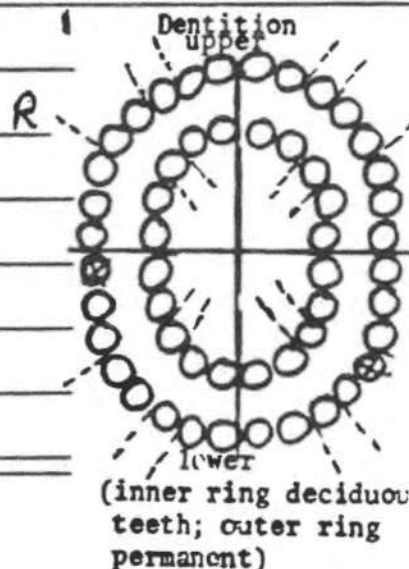
Cervical

Thoracic

Lumbar

Sacrum

osteophytosis - some degenerative joint changes



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 26 Provenience Locus Recorder Laura M. Ford-Lemos
Sex (criteria used) female (P) gracile

Age (criteria used) older adult 30+

Condition of Skeleton fragments

Cranium —

Mandible

left half and ascending rami

heavy

Hyoid —

Loose Teeth 4 "pegs"

Vertebrae

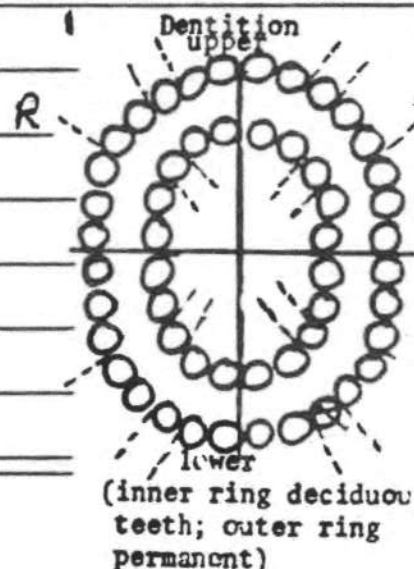
Cervical

Thoracic

Lumbar

osteophytosis - #s unidentifiable - frags

Sacrum



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
if bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ak-479 Feature _____ Date 12/21/80
Burial No. 27 Provenience Locus R Recorder Laura M. Ford-Lemos

Sex (criteria used) indet.

Age (criteria used) indet. adult

Condition of Skeleton isolated elements - right humerus missing proximal end, and one rib fragment

Cranium —

Mandible —

Hyoid —

Loose Teeth —

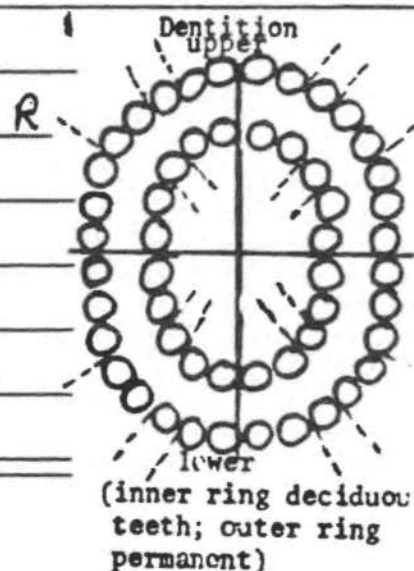
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 28 Provenience Locus S Recorder Laura M. Ford-Lemas

Sex (criteria used) indet.

Age (criteria used) subadult

Condition of Skeleton 1 isolated element

Cranium —

Mandible —

Hyoid —

Loose Teeth —

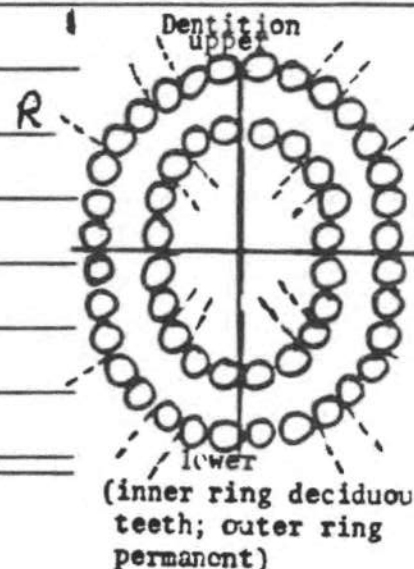
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site A/a-479 Feature _____ Date 12/21/84
Burial No. 29 Provenience Locus T Recorder Laura M. Ford-Lemas

Sex (criteria used) indeterminate

Age (criteria used) 4-5 yr. based on tooth eruption
3 1/2 - 4 1/2 based on long bones.

Condition of Skeleton in fragments cortex good.

Cranium lateral occipitals unfused
fairly complete vault, but in pieces
left maxilla-inc.

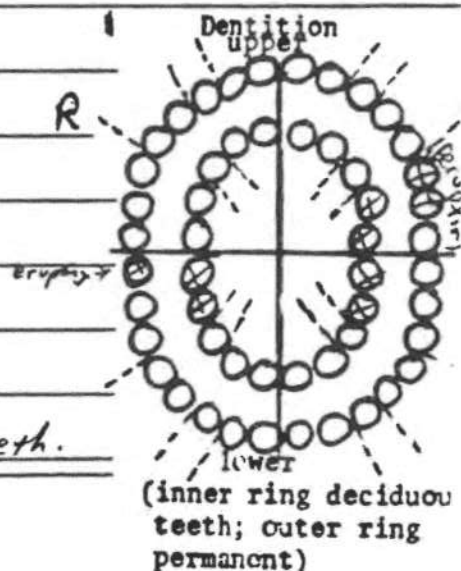
Mandible left half. - 1st pre-molar erupting
* see notes under pathologies.

Hyoid - Loose Teeth miscel. deciduous teeth.

Vertebrae

Cervical -
Thoracic -
Lumbar -
Sacrum -

} 8 centrums.



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 30 Provenience Locus V Recorder Laura M. Ford-Lemos

Sex (criteria used) indet.

Age (criteria used) late subadult or adult.

Condition of Skeleton isolated element

Cranium occipital(?) frag.

Mandible —

Hyoid — Loose Teeth —

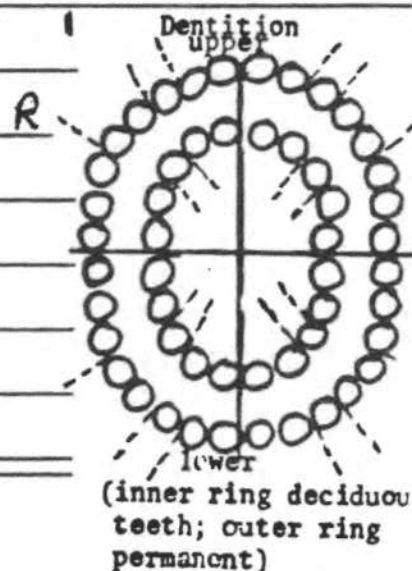
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86
Burial No. 31 Provenience Locus Z Recorder Laura M. Ford-Lemos

Sex (criteria used) indeterminate

Age (criteria used) sub adult (3-7ish) not a neonate
size of bones

Condition of Skeleton fragments - cortex of elements
present is excellent.

Cranium —

Mandible —

Hyoid —

Loose Teeth —

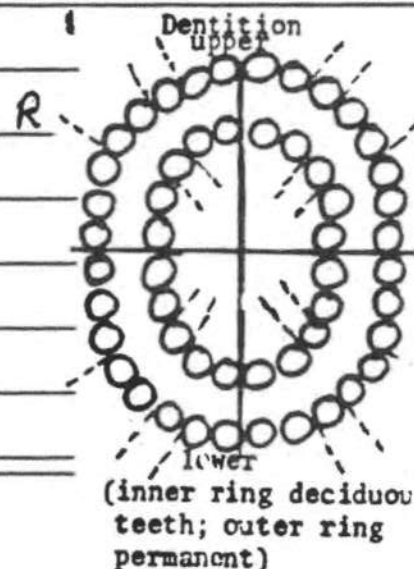
Vertebrae

Cervical —

Thoracic —

Lumbar —

Sacrum —



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

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HUMAN SKELETAL INVENTORY

Site Ala-479 Feature _____ Date 12/21/86

Burial No. 32 Provenience locus Z Recorder Laura M. Ford-Lemos

Sex (criteria used) indeterminate

Age (criteria used) adult

Condition of Skeleton isolated elements.

Cranium 1 cranial fragment - robust occipital

Mandible —

Hyoid — Loose Teeth —

Vertebrae

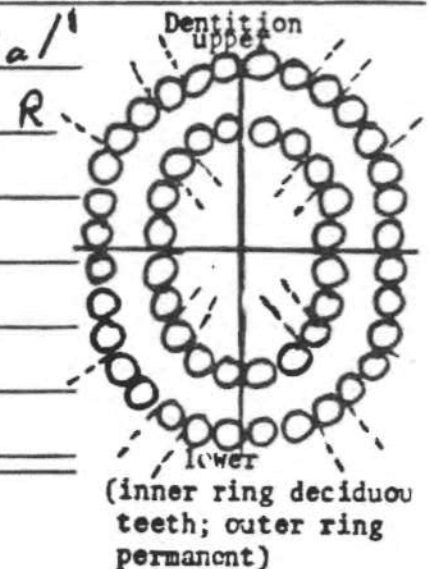
Cervical

Thoracic

Lumbar

Sacrum

1 frag spinous process, probably thoracic
2 bodies, possibly thoracic.
* slight osteophytosis.



KEY C= complete (2/3 of bone with articulating surfaces)
I= incomplete (less than 2/3 of bone but more than 1/3 of bone with 1 art. surface)
F= fragmentary (less than 1/3 of bone)
If bone is complete but in pieces, indicate thus: C(3) for the no. of pieces

APPENDIX IV

SHELLFISH DATA FROM Ca-Ala-479

Scientific Name	Common Name	# of Pieces	Total Weight
<i>Ostrea lurida</i>	Bay oyster	912	590.55 gr.
<i>Cerithidea californica</i>	Marsh snail	219	119.45 gr.
<i>Penitella gabbi?</i>	Boring clam	35	7.30 gr.
<i>Cancer sp?</i>	Crab	24	4.70 gr.
<i>Macoma nasuta</i>	Clam	18	8.30 gr.
<i>Mytilus edulis</i>	Mussel	12	3.40 gr.
<i>Haliotis refenscens</i>	Red abalone	4	19.80 gr.
?	Ridge clam	2	.70 gr.
<i>Balanus sp?</i>	Barnacle	2	1.60 gr.
<i>Olivella biplicata</i>	Purple olive	2 (beads)	1.85 gr.
?	Fossilized pecten/scallop	1	2.50 gr.

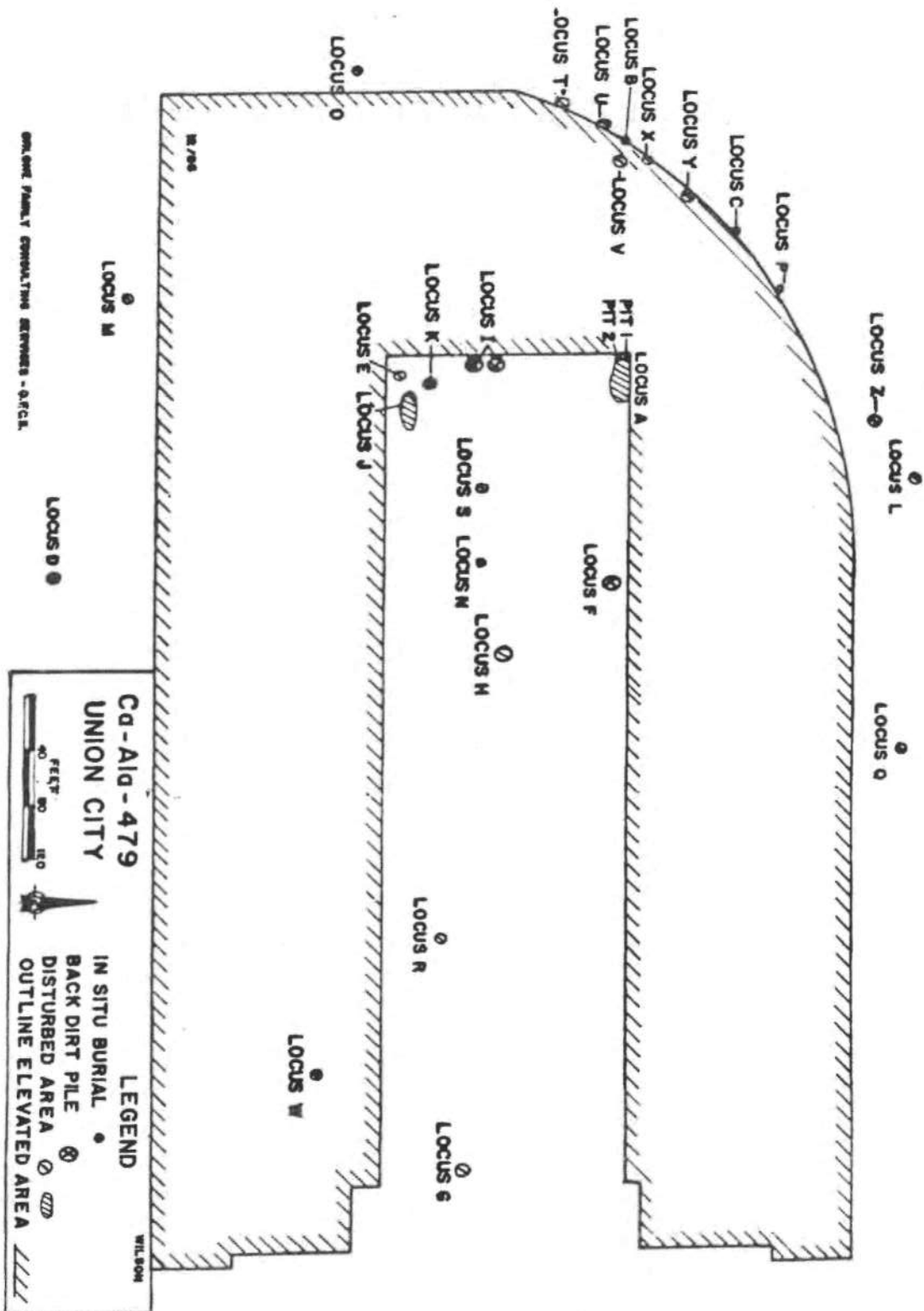


Figure 3.