

## MIDDLE HORIZON SITES IN NORTH SAN JOSE

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### ABSTRACT

From 1979 to the present, a number of prehistoric archaeological sites in north San Jose have been affected by ongoing industrial development. Monitoring and excavation programs have been conducted by both Archeological Resource Management and Basin Research Associates at CA-SC1-288, CA-SC1-300, CA-SC1-302, and CA-SC1-418 along North First Street and at CA-SC1-6 East/447 and CA-SC1-268 along the Guadalupe River. As a result of these programs, grave lots and other Middle Horizon cultural materials have been recovered. Although much of the information from these sites has not been fully analyzed, a descriptive review of the available data may be useful for future synthesis. This paper presents such a descriptive review with preliminary analysis, and suggests avenues for further research.

### INTRODUCTION

The study area is situated in the northern portion of the City of San Jose in Santa Clara County, California [Fig. 1]. All of the prehistoric sites included in this study area are located within the Rincon de los Esteros redevelopment district and have been affected by industrial and infrastructure development. As a result, almost all of the archaeological data compiled for these sites has been from CRM programs, particularly emergency salvage programs. Therefore the data are variable and somewhat limited, although most are readily available in the "gray literature" (Layton 1984:131) of the California Archaeological Site Inventory.

Currently, there are over 15 prehistoric sites known in the Rincon de los Esteros area, the majority concentrated along the Guadalupe River [Fig. 1]. Many of these sites date to what is commonly known as the Middle Horizon of the Central California Taxonomic System, which for the purposes of this review is considered to range from 500 B.C. to A.D. 300 and include the transitional periods with the Early and Late Horizons.

This discussion will concentrate on sites CA-SC1-268, CA-SC1-447 [alternatively known as CA-SC1-6 East],

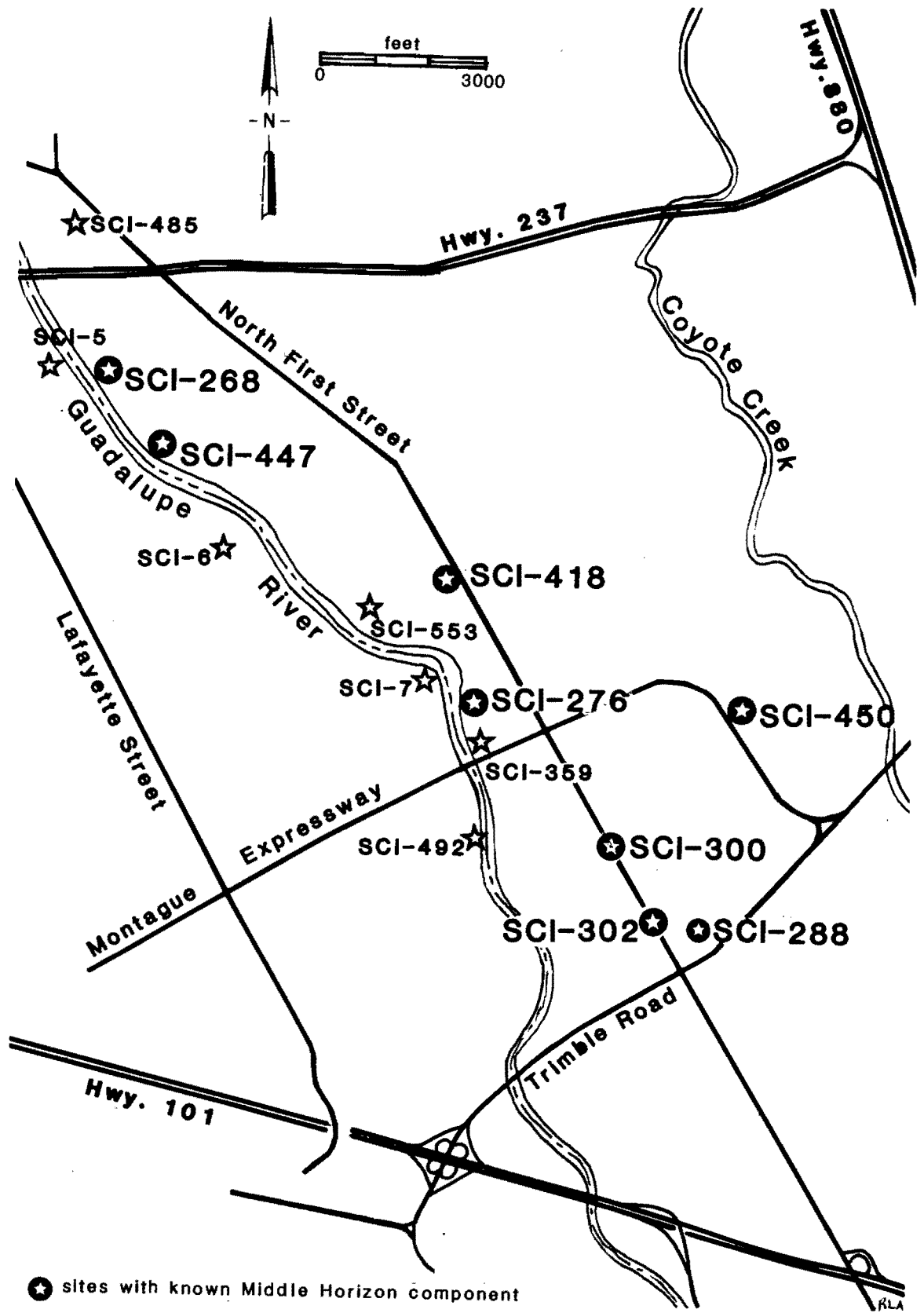


Figure 1. Prehistoric sites in the study area.

CA-SC1-418, CA-SC1-276, CA-SC1-300, and CA-SC1-302 [from north to south]. Sites CA-SC1-450, and CA-SC1-288 also provide information pertinent to the study. Other sites in the area do not have a Middle Horizon component, or currently lack chronological data.

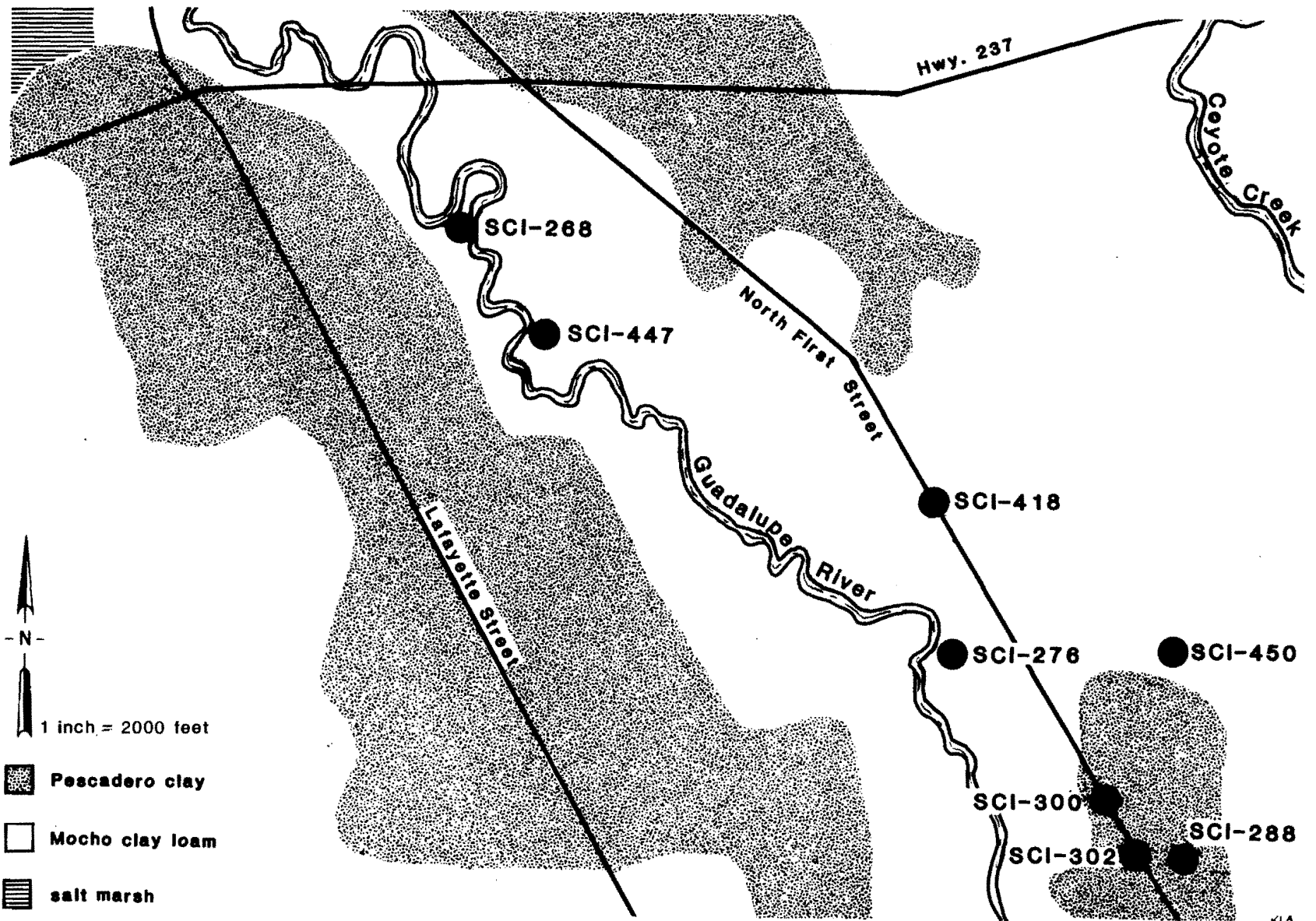
With the exception of CA-SC1-288 which is an isolated burial, all of the sites discussed in this study appear to be habitation sites. In general, these middens are characterized by large quantities of fire-affected rock, baked and vitrified clay, and smaller quantities of shellfish fragments and faunal bone. Cerithidea are the dominant mollusk and were possibly used as a food resource, although exactly how they were exploited remains open to question. Groundstone, chipped stone, and bone artifacts have also been found on these sites, as well as small quantities of lithic debitage [consisting for the most part of local Franciscan chert with minor amounts of other materials].

All of these sites are known to contain human burials. The majority of the burials are tightly flexed, although loosely flexed and extended burials have been observed. One cremation has been noted from CA-SC1-302 (Bard, Brock, Busby et al. 1986). Variation in quantity of grave goods indicates a stratified society, while trade with neighboring groups is demonstrated by the presence of obsidian, cinnabar, Monterey chert, and coastal shellfish such as Mytilus californianus, Tivela stultorum, Olivella biplicata, and Haliotis sp. Almost all of the obsidian is from Napa Glass Mountain, although Annadel, Bodie Hills, and Borax Lake obsidian has been noted.

#### ENVIRONMENTAL SETTING

The present relatively straight configuration of the Guadalupe between high levees is artificial. Historically, the lower reaches of the Guadalupe River undulated with many meanders and oxbows (Healey 1866; Thompson and West 1876:24; United States Geological Survey 1899) [Fig. 2]. Reconstructions of the prehistoric Santa Clara Valley ecosystem indicate that the study area consisted of a low-lying grass-covered alluvial basin studded by occasional oaks. Riparian vegetation, dominated by willows, was located along the Guadalupe River. Brackish and saline marshes were located to north and east, as were the shallow waters of the South San Francisco Bay (Mayfield 1978, 1980). In the floodplain area, the Guadalupe was an embedded river with many meanders that shifted over time. The shifting course of the Guadalupe created a flat but uneven topography, which, combined with high winter groundwater levels and possible sheet flooding, probably created a seasonally soggy environment in the grasslands (Fentress

Figure 2. Study area with predominant soil types and unmodified course of the Guadalupe River (after USGS 1899, USDA SCS 1968)



1979:53-59; Mayfield 1980:15). Certainly, the action of the Guadalupe River must have had a strong influence on settlement and subsistence patterns as well as site formation.

#### CHRONOLOGY

A review of chronological indicators for each of the sites is summarized in Figure 3. The chronological scheme followed is the "short" B1 chronological scheme proposed by Bennyhoff and Hughes (Bennyhoff and Hughes n.d. in Hughes 1983:138-141); Bard and Busby have suggested that this is the more useful chronology for the northern Santa Clara Valley (Bard and Busby 1986:83). Olivella bead types follow Bennyhoff and Hughes (1983, 1986); Haliotis beads and ornaments follow Gifford (1947); charmstone typology is based on Davis and Treganza (1959), other artifact typologies are based on Beardsley (1954). Radiocarbon dates, obsidian hydration dates, and artifact typologies correlated very well for these sites.

CA-SC1-418 appears to be the oldest of the sites. Based on K type and S5a Haliotis bead lots and charmstone types [IA3a, IB1, IB1b, IB2] (Archeological Resource Management n.d.a; Kobori and Bard 1980a:23-31; Kobori, Bard and Busby 1980) it appears the site was occupied during the transitional Patterson Facies between the Early and Middle Horizon. S6a Haliotis bead types and an uncorrected C14 date of 1010 B.C. (Archeological Resource Management n.d.a) suggest that the site might even extend into the Early Horizon. An obsidian hydration date of A.D. 320 (Bard, Busby, Dezzani et al. 1986b:15) brings the site well into the Middle Horizon, as supported by K type, Q1a, and S2a Haliotis beads, a B1 bowl mortar, metate fragments, large carnivore claws as grave goods and use of red ocher (Archeological Resource Management n.d.a; Kobori and Bard 1980a:15-16; Kobori, Bard, and Busby 1980; Ogrey 1985). The presence of a large obsidian biface (Kobori, Bard, and Busby 1980:23-31) and one of Monterey chert (Ogrey 1985:9) is interesting. Both are leaf-shaped bifaces with expanding stems, which bear some resemblance to the large chert bifaces found with Stanford Man II, dated to 2500 B.C. (Gerow 1974:240). Some of the Middle Horizon Haliotis bead types [Q1a, S2a] at CA-SC1-418 are also found into Phase I of the Late Horizon, but the preponderance of evidence indicates that the site was occupied from the Patterson Facies through the Middle Horizon.

CA-SC1-447, also known as CA-SC1-6 East, has apparently had the longest period of occupancy of any of the sites in the study area. A suite of obsidian hydration dates from the site, which correlate extremely well with stratigraphic depth, suggests that the site may have been occupied as

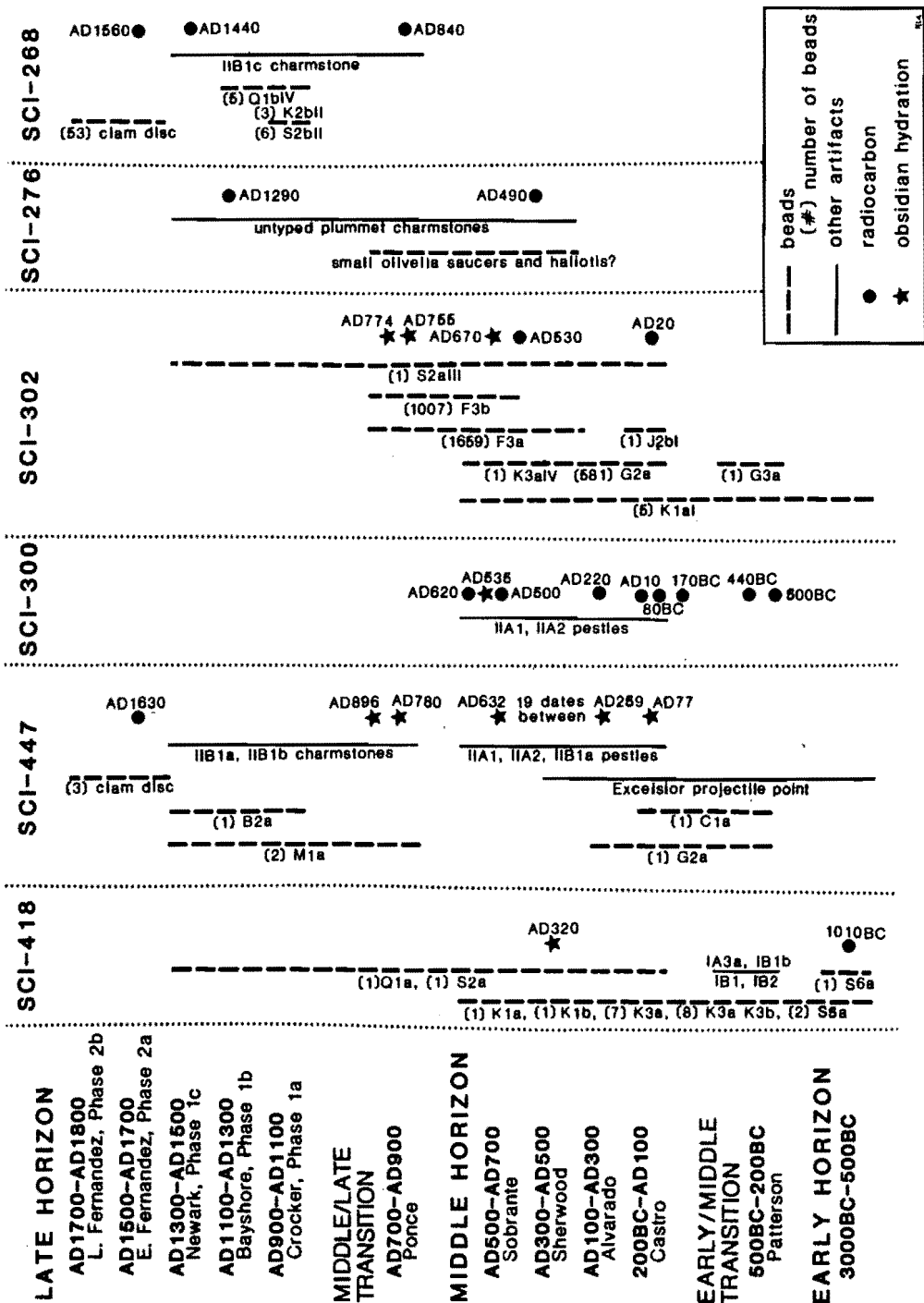


Figure 3. Chronology of some sites in the study area

early as the end of the Early Horizon (Bard, Busby, and Kobori 1984:127-131); however, the majority of evidence supports initial occupation during the transitional Patterson Facies. This is supported by the presence of bevelled split [C1a] and saucer [G2a] Olivella beads, as well as an Excelsior projectile point (Anastasio, Bard, Brock et al. 1986; Archeological Resource Management 1981:40-52; Bard, Busby and Kobori 1984; Bard, Busby, Dezzani, et al. 1986a). The vast majority of obsidian hydration dates correspond to the Alvarado and Sobrante Facies, supported by the presence of typically Middle Horizon pestles [IIA1, IIA2, IIB1a] on the site (Anastasio, Bard, Brock et al. 1986; Bard and Busby 1981a). Site occupation continued into Phase I of the Late Horizon as indicated by two hydration dates in the Ponce Facies, type IIB1 piled plummet charmstones, and M1a sequin Olivella beads (Anastasio, Bard, Brock et al 1986; Bard, Busby, Dezzani et al. 1986a; Bard, Busby, and Kobori 1984). Phase II occupation is suggested by the presence of three clam disk beads and a C14 date of A.D. 1630. Unfortunately, the C14 date is found at a depth of 1 meter and with inappropriate artifact associations, suggesting that the sample was contaminated (Bard, Busby, Dezzani et al. 1986a).

CA-SC1-300 is apparently a purely Middle Horizon site. Although the site is rich in midden constituents, the burials lack grave goods, thus somewhat limiting chronological/cultural interpretation. Eight C14 dates from the site range from 500 B.C. to A.D. 620 (Archeological Resource Management 1979:48). These dates correspond well with the pestle types [IIA1, IIA2] found on the site (Kobori, Bard, and Busby 1979:3-5; Bard, Findlay, Garaventa et al. 1981:39) as well as an obsidian hydration date of A.D. 535 (Bard, Busby, Dezzani et al 1986b:15). Unfortunately, the C14 dates do not correlate with well with stratigraphic depth, suggesting either lack of stratigraphic integrity, contamination of the samples, or both.

CA-SC1-302 is also clearly a Middle Horizon site. It has been suggested, and I feel that this is the case, that CA-SC1-300 and CA-SC1-302 are actually the same site with CA-SC1-302 representing a high-status cemetery area in the larger habitation site. Burials at CA-SC1-302 are rich in grave goods, whereas the surrounding midden is comparatively sparse. At CA-SC1-302, the majority of beads, F3a and F3b Olivella Saddles, suggest a Late to Terminal Middle Horizon occupation for the site (Archeological Resource Management n.d.b; Fenenga 1979:173-175; Bard, Brock, Busby et al. 1986; Bard, Findlay, Garaventa et al. 1981:70,75; Busby, Kobori, Bard et al. 1982:30-38; Ogrey et al. 1981:34-38). This is supported by three obsidian hydration dates of A.D. 670-774 (Bard, Brock, Busby et al. 1986:42), and a C14 date of A.D. 530 (Archeological Resource Management 1979:48). G3a Olivella beads and K1aI and J2bI Haliotis bead and ornament

types suggest an earlier occupation of the site, perhaps even into the Patterson Facies. This earlier occupation is apparently confirmed by a C14 date of A.D. 20 (Archeological Resource Management 1979:48). Other grave goods from the site, such as mountain lion claws, a bird bone whistle, and use of red ocher also support the Middle Horizon occupation of the site (Bard, Brock, Busby et al. 1986). Based on beads and ornaments, the isolated burial at adjacent CA-SC1-288 is contemporaneous with CA-SC1-300 and CA-SC1-302 and is probably part of the same large site (Fenenga 1979; Roop et al. 1982:8-9).

CA-SC1-450 is tenuously dated to the Middle Horizon on the basis of pestle types, burial positions, and use of red ocher (Kobori, Bard, and Harmon 1981; Bard, Tannam, Ogrey et al. 1984). The association of one of the burials with a whole Haliotis shell placed over the skull may also indicate a Middle Horizon affiliation in this area (Bard, Tannam, Ogrey et al. 1984:5), since whole shell ornaments were fairly common at CA-SC1-302 (Fenenga 1979; Archeological Resource Management n.d.b).

CA-SC1-276 seems to have been occupied from the end of the Middle Horizon through Phase I of the Late Horizon. A C14 date of A.D. 490 from a depth of over 2 meters indicates a Late Middle Horizon occupancy, which is supported by the presence of small Olivella saucers, Haliotis pendants, and a plummet charmstone [untyped in Archeological Resource Management 1981]. The charmstone type may continue into Phase I of the Late Horizon, and Late Horizon occupancy is also indicated by a C14 date of A.D. 1290 at 20-30cm (Archeological Resource Management 1981:31-42; Tucek 1981).

CA-SC1-268 apparently extends from the transitional Ponce Facies between the Middle and Late Horizons into Phase II of the Late Horizon. A C14 date of A.D. 840 and the presence of a Type IIB1c piled plummet charmstone support occupation during the Ponce Facies (Anastasio, Bard, Brock et al. 1986). K2bII, S2bII, and Q2ibIV Haliotis ornaments suggest occupation during the Crocker and Bayshore Facies of Phase I Late Horizon (Anastasio, Bard, Brock et al. 1986), while two C14 dates of A.D. 1440 and A.D. 1560 indicate occupation during the Late Phase I and early Phase II (Tucek 1981). Fifty-three clam disc beads found at the site suggest occupation into the last half of Phase II Late Horizon (Fenenga 1981:88).

#### SETTLEMENT AND SUBSISTENCE PATTERNS

The chronology of these sites, when examined with respect to their locations, reveals some interesting patterns. Roop et al. (1982) have proposed the hypothesis that the development of the north San Jose prehistoric



community was associated the maturation of the surrounding salt and fresh water marsh habitats; Bickle (1976, 1978) has predicted that this maturation occurred about 550 B.C. It is apparent that two of these sites, SC1-418 and SC1-447, may have been occupied prior to the predicted maturation of the Bay marsh habitat. This suggests that either the marshlands matured earlier than currently estimated, or that prehistoric peoples found sufficient resources in the immature marsh, or sufficient non-marsh resources, to establish at least seasonal habitation sites.

The three sites which were clearly occupied only during the Middle, and perhaps Early, Horizon [CA-SC1-418, CA-SC1-300, CA-SC1-302] are located at a distance from the current course of the Guadalupe River. The three sites occupied from the terminal Middle Horizon into the Late Horizon [CA-SC1-447, CA-SC1-276, CA-SC1-268] are located on the banks of the historic course of the river. This suggests that environmental change resulted in a shift in settlement around A.D. 700. The nature of the environmental change has recently been illuminated by sediment studies and extensive earth moving at CA-SC1-418, which revealed that the site was actually situated on a watercourse. Sand and silt sediments typical of a meander were identified on the north and west margins of the site (Bard, Busby, Dezzani et al. 1986b:Fig. 11; Parsons 1984). This suggests that at least one meander, and possibly the entire course of the river, was once located further east. The lack of riverine sediments around CA-SC1-268 and CA-SC1-447 (Archeological Resource Management 1981; Bard, Busby, and Kobori 1984; Anastasio, Bard, Brock et al. 1986) suggests that the former more easterly course of the river was restricted to the southern reaches of the study area.

An examination of soil types in the study area is also revealing. Currently, CA-SC1-268, CA-SC1-447, CA-SC1-418, CA-SC1-276, and CA-SC1-450 are located in areas of Mocho fine clay loam, while CA-SC1-300, CA-SC1-302, and CA-SC1-288 are situated in an area of Pescadero clay (USDA Soil Conservation Service 1968:map) [Fig. 2]. The Pescadero clay is a soil formed in poorly-drained conditions in an alluvial basin (USDA Soil Conservation Service 1968:194). In contrast, Mocho loams are recent relatively shallow soils which overly basin clay. They occur in areas of active deposition from creeks and streams, and much has been deposited since 1850. In the north San Jose area, 30-100cm of Mocho fine clay loam have been deposited over the Pescadero clay along the Guadalupe River (USDA Soil Conservation Service 1968:98).

The cultural deposits of CA-SC1-268, CA-SC1-447, and CA-SC1-276 [which all have Late Horizon components] consist of both deeper Pescadero clay and the more recent Mocho clay loam (Bard, Busby, and Kobori 1984; Anastasio, Bard, Brock

et al. 1986; Bard, Busby, Dezzani et al. 1986a; Archeological Resource Management 1981). CA-SCL-418, perhaps the earliest site, consists solely of the Pescadero clay, and is covered by a 1 meter blanket of Mocho clay loam (Bard, Busby, Dezzani et al. 1986b; Cartier 1982; Ogrey 1985). Similarly, CA-SCL-450 is situated in Pescadero clay but is capped by Mocho loam (Bard, Tannam, Ogrey et al. 1984), which seems to suggest that CA-SCL-450 and CA-SCL-418 may be of similar age. In contrast, although both CA-SCL-300 and CA-SCL-302 are partially buried sites, they consist only of Pescadero clay, and are partially capped by the same (Archeological Resource Management 1979; Bard, Busby, Dezzani et al. 1986b). Shifts in the course of the Guadalupe River appear to have been accompanied by a change in depositional regime resulting in increased siltation downstream.

This increased siltation also appears to have affected the subsistence patterns at the sites as indicated by the fauna identified. Unfortunately, differences in excavation such as screen size and wet vs. dry screening, and analysis (especially between intensive data recovery programs and initial testing and salvage programs) have probably introduced biases into the data. The most limited faunal assemblage was found at CA-SCL-450, where only a sparse scatter of Cerithidea was observed (Kobori, Bard, and Harmon 1981; Bard, Tannam, and Ogrey 1984). This may indicate that the site was not an intensive habitation site, but perhaps may have only been a temporary camp.

CA-SCL-418 also had a fairly limited faunal assemblage, which indicated that only common terrestrial animals such as mule deer, jackrabbit, coyote, various rodents, and a few birds were exploited. Shellfish came from rocky, gravelly, and sandy intertidal areas, as well as the nearby brackish marsh. Neither fish nor coastal species have been identified from the site (Bard, Busby, Dezzani et al. 1986b; Cartier 1982; Kobori and Bard 1980a; Kobori, Bard, and Busby 1980; Ogrey 1985).

Interestingly, CA-SCL-268 also had a fairly limited faunal assemblage. In addition to common local species found at CA-SCL-418, CA-SCL-268 contained sea otter, salmon, and sturgeon suggesting that these people were exploiting other aquatic resources (Anastasio, Bard, Brock et al. 1986; Archeological Resource Management 1981; Ray, Phillips, and Flemming 1937). At CA-SCL-268, CA-SCL-276, and possibly CA-SCL-447, shellfish species changed, with increasing quantities of mud and clay-loving species such as Protothaca, Macoma, and various piddocks and tellins (Archeological Resource Management 1981; Bard, Busby, and Kobori 1984; Bard, Busby, Dezzani 1986a). This change in shellfish exploited may be indicative of increasing siltation affecting the local intertidal environment.

Interestingly, the most diversified faunal assemblage was recovered at CA-SC1-447, followed closely by CA-SC1-300 and CA-SC1-302. This finding may be an artifact of the intensive study directed at these sites rather than actual procurement changes. Nonetheless, besides rodents, rabbits, deer, and elk, the number of species identified at CA-SC1-447, CA-SC1-300, CA-SC1-302 is quite impressive -- including mountain lion, wolf, coyote, weasel, skunk, geese, ducks, teal, coot, pelican, cormorant, kingfisher, great blue heron, red-tailed hawk, marsh hawk, condor, great horned owl, sturgeon, shark, rays, salamander, frogs, toads, turtle, skink, and snake. Shellfish exploited also include a wide variety which represent all of the intertidal environments [muddy, sandy, gravel, and rocky] as well as both coastal and fresh-water species (Anastasio, Bard, Brock et al. 1986; Archeological Resource Management 1979, 1981; Bard, Brock, Busby et al. 1986; Bard and Busby 1979, 1981a; Bard, Busby, and Kobori 1984; Bard, Busby, Dezzani et al. 1986a, 1986b; Bard, Findlay, Garaventa et al. 1981; Busby, Kobori, Bard et al. 1982; Cartier 1983; Kobori and Bard 1980b; Kobori, Bard, and Busby 1979). Clearly, at these habitation sites, people were fully exploiting a rich and highly diversified environment. It seems as if a climax environment existed in north San Jose during the Middle Horizon, which during the Late Horizon may have become increasingly degraded by a higher siltation rate.

#### SUGGESTIONS FOR FURTHER RESEARCH

This paper barely touches on many aspects of this complex of sites. Aspects which demand more in-depth research include a detailed study of faunal and shellfish remains from each site looking for both intra- and inter-site variation. This would tell us more about changing subsistence patterns, environmental change, and seasonality. I hypothesize that these sites were not occupied during the winter since the basin clays which today are poorly drained and soggy during the winter were actually even more poorly drained under natural conditions prior to dropping ground-water levels. This contention is clearly supported by early historic descriptions of the area (Bolton 1930).

A detailed study of the over 100 burials from these sites are yet another crucial aspect which could prove quite fruitful. Unfortunately, much of this population was damaged beyond analysis by earlier construction, and many have been reinterred. However, many questions remain to be answered. The majority of remains have been identified as adult males, raising questions about both demographics and burial practices, and possibly about biases in current methods of aging and sexing remains. Also, since burial position,

orientation, and artifacts association appear quite variable within this population, it would be very interesting analyze correlations of these traits with respect to more refined chronological affiliation, sex, age, and other factors.

Other issues that could be examined though the wealth of data available at these sites might include a study of the very common spire-lopped Olivella bead with respect variations in type and association with other bead and ornament types, or a study of the whole Haliotis shell ornaments found at 302. For example, Fenenga (1981:89) has suggested that whole Olivella beads with chipped rather than ground perforations may be diagnostic of the period from A.D. 700-900. An intra-site comparison of bone tools found at several of these sites might also prove fruitful. Another interesting pattern noted at these sites is an apparent change in procurement of Monterey chert and obsidian through time. These issues would probably provide the most information if examined in an intra-site as well as inter-site context.

In sum, this complex of sites in North San Jose is clearly worth further study, and could tell us much about the development of the Middle Horizon in the south Bay, as well as implications of environmental change on settlement and subsistence patterns.

#### NOTES

I would like to thank Dr. Robert Cartier for my invitation to participate in the symposium and for allowing me access to his unpublished data and collections. I would also like to thank Dr. Bert Gerow for providing me with information on and allowing me access to the Stanford "Alviso Shell Mound" collection, which I believe to be CA-SC1-268.

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