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Mission San Juan Bautista: Zooarchaeological Investigations at a California Mission

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MISSION SAN JUAN BAUTISTA: ZOOARCHAEOLOGICAL INVESTIGATIONS AT A CALIFORNIA MISSION

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To Mom, Bret, and Michael for their support and strength.

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ABSTRACT

In June of 2001 analysis of faunal material from the courtyard of Mission San Juan Bautista in California was conducted. Comparative faunal material from the Neophyte Housing area of the mission was analyzed in the summer of 2003. Results of these analyses indicate that the faunal remains from the two areas analyzed represent consumption activities and a diet primarily composed of domestic animals, with smaller amounts of wild game, birds, shellfish, and fresh water fish. The two assemblages were overwhelmingly composed of cattle bone. Cattle were not only eaten at the missions, but where known to be utilized for their by-products. The California missions were the largest producer of hides and tallow (derived from cattle) in the world during the early 19^{th} century. Missions not only supplied the soldiers and families residing at nearby presidios and pueblos, they also produced surpluses for trade with foreign vessels sailing the California coast.

Further analysis using intra-site comparison, and detailed examination of faunal remains through studies of species representation, element representation, natural and cultural modifications, and butchery marks provided evidence of the importance of domestic animals at the mission and allowed for comparison of the specific analyzed assemblages to other missions in Alta California as well as the functioning of Mission San Juan Bautista in the frontier economy of the time. Based on the animal remains recovered, theories about the favored cuts of meat, use of the animals in the mission, and even the time periods associated with the faunal remains were developed. The detailed zooarchaeological study at this mission allowed for larger discussions of its functioning and likely participation in the production of surpluses for supply and trade.

The end result of this thesis is a better understanding of the way in which faunal remains may supplement and even contradict the documentary and historical documents of the time. This thesis paints a picture of life at Mission San Juan Bautista for the missionaries and Native Americans living there that could not be understood based solely on the written record. It provides a more intimate glimpse into what daily-life may have been like and the types of resources that were considered important, even crucial, to the survival of the mission.

MISSION SAN JUAN BAUTISTA: ZOOARCHAEOLOGICAL INVESTIGATIONS AT A CALIFORNIA MISSION

1.0 INTRODUCTION

The Spanish penetration and settlement of Alta California created a new social and natural environment. California mission sites represent important opportunities to study Native American life after the arrival of the Spanish. In particular, scholars point to changes in Native American diet and subsistence that occurred as a result of the colonization and concentration of native people at the missions. This thesis focuses specifically on the zooarchaeological analysis of faunal remains from the Neophyte Housing Area and Courtyard of Mission San Juan Bautista to discern how aboriginal subsistence practices were affected by missionization. A primarily hunter-gatherer diet that centered on wild game and plants was dramatically changed to one focused on domesticated animals and agriculture. The faunal remains from both areas of Mission San Juan Bautista represent the utilization of domesticated animals primarily for consumption by the population of the mission. From this, the importance of domesticated animals to the functioning of the mission economy in both food related and non-food related use is inferred.

The examination of the animal remains at Mission San Juan Bautista in conjunction with documentary and historical research allows for the following important discoveries that contribute to our greater understanding of the ways in which Native American diet changed and the overall importance of domesticated livestock in bringing about these changes:

- The faunal assemblages analyzed show a heavy reliance on cattle in both the Courtyard Area and the Neophyte Housing Area. It is most likely that cattle were utilized for consumption in these areas. The food related use of cattle is derived from the predominance of whole and butchered ribs elements in the assemblage. Although this element yields the least abundance of meat, the cut is frequently used in cooking of Spanish and Mexican cuisines, as well as it is the most unused portion of cattle in the production of hides and tallow. It may interpreted that the rib cuts were the most easily scavenged cut of meat left over from the intensive processing of the cow for the hide and tallow trade and therefore the most commonly consumed portion.
- As discussed, the rib elements of cattle were the most abundant element represented in both the Courtyard and the Neophyte Housing Area. Interestingly, rib elements are often cited as missing or lacking in zooarchaeological studies of Spanish era butchery sites in California, including *mantanza* and Mexican *rancho* sites. Therefore, this thesis infers that ribs were represented because of the butchery and processing techniques of the cattle at the kill site. Elements such as limb bones could be easily stripped of their meat in the field, thus allowing for their disposal at the butchery site. Rib bones are not as easily and quickly processed and were likely transported back to mission for additional processing or for use in common Spanish cuisine meals of soups and stews.
- The zooarchaeological analysis indicated a discrepancy in the representation of sheep individuals at both areas of the mission when compared to the documentary records of the time. The low representation of sheep remains in the faunal

materials is attributed to the likelihood that sheep were maintained away from the main mission complex and were being utilized for wool not meat. Historical and documentary records support the theory that the sheep were often pastured at *ranchos* miles from the mission. It should also be noted that there is frequent mention in historical documents that Native Americans in California preferred the taste of beef to mutton.

- Indirectly, the importance of domesticated animals at the mission was inferred by the lack of wild animal remains in the faunal assemblage. At both the Courtyard Area and the Neophyte Housing Area wild animal remains make up less than one percent of the total assemblage analyzed. There is some indication that Native Americans were not allowed to hunt wild game while residing at the mission. It is also possible that wild animal population of the area had declined with the introduction of agriculture and domesticated animals.
- The study of two distinct area of Mission San Juan Bautista has allowed for intra-site comparison at the mission. Research determined that species selection, processing, and element selection at both areas was strikingly similar. This may indicate that the Native Americans residing at the Neophyte Housing Area had changed, modified, or perhaps, accommodated their subsistence patterns to those of the Spanish.
- When looking to contemporaneous (protohistoric) Native American village sites outside the mission, the influence of Spanish foodways and patterns of subsistence are indicated in the aboriginal population at these locations as well. Historical and archaeological documents both present evidence that demonstrates

that domesticated cattle and horses were being utilized by outlying Native American populations for food related and non-food related means. Thus, the influence of the Spanish reached beyond the confines of the mission.

The introduction of domesticated animals to Alta California and the affect this had on Native American subsistence is apparent in the faunal remains at Mission San Juan Bautista. Domestic animals such as cattle, sheep, pigs, and chickens were raised for both food and export of their by-products. There is evidence from the faunal materials to suggest that as these animals were added to the Native American diet, the use of wild meat sources declined. Eventually, diet and subsistence became centered on domesticated meat resources, attesting to the key role that domesticated animals played in missionization of the Native American population in California.

1.1 Plan of Study

Chapter 2.0 uses the history and background of the California missions to provide a base for understanding the setting that the faunal materials from Mission San Juan Bautista were accumulated in. It includes a detailed history of the *Mutsun* Ohlone Native Americans, as well as Mission San Juan Bautista, to help the reader understand all the possible species types and ways that animals may have utilized in the studied assemblages. This chapter includes a discussion of the mission economy and explores historical and archaeological evidence about the influence of the Spanish on Native American villages and communities outside the mission.

Chapter 3.0 briefly summarizes previous archaeological investigations that have taken place in and near Mission San Juan Bautista. It specifically focuses on the two excavations that recovered the faunal materials analyzed for this paper. The chapter includes highlights of the artifactual material recovered during these excavations in the hopes that they will provide more specific contexts in which to analyze the faunal remains.

Chapter 4.0 is the culmination of the faunal analysis. It includes detailed sections on the methodology, identification, species representation, and distribution. Also discussed are the types of animals identified and how they may have been utilized at the mission. This chapter discusses natural and cultural modifications on the bones, as well as the processes that may have been responsible for creating these modifications.

Chapter 5.0 is the discussion and interpretation of the findings of the faunal analysis. It talks about the likelihood that two distinct time periods are represented in the assemblages and leads into a discussion of predominance of domestic animals in the assemblages.

Chapter 6.0 is a brief conclusion to the paper. It highlights the interesting and important contributions this paper has made to the study of zooarchaeology at the California missions.

2.0 HISTORY AND BACKGROUND

To understand the implications of missionization on indigenous subsistence practices, a consideration of the pre-contact contexts of the Native Americans of California is necessary. The following chapter discusses not only the history of Native Americans at the missions, but also describes the missionization process at Mission San Juan Bautista, daily life at the mission, as well as takes into consideration the affect that the missions had on Native American groups living outside the mission. Archaeological and historical information are both used to construct the background information, relying heavily on the documentary accounts of visitors to the missions during this time period and records of government officials.

Settlement of Alta California was stimulated by the presence of other colonial powers in the area, in this case, the Russians and English (Costello & Hornbeck 1990). It was rumored that Russia was planning to extend its outposts south into California. As a result, in 1769, a combined sea and land expedition lead by Gaspar de Portolá , and accompanied by Father Junípero Serra, was dispatched to establish a settlement at San Diego and then to push further north to Monterey Bay, the chosen capital of the new frontier. In June 1770, California was claimed for Charles III, King of Spain.

Critical to this discussion of the functioning of the missions in an economic context is to understand the three different types of frontier strategies that were instituted in California by the Spanish. The missions would eventually come to support not only themselves but also these other two types of settlements. Missions were established as institutions of social change for Native American groups. They were intended to convert Native Americans into Catholics. Presidios were established as military outposts to protect Spanish landholdings and guard the coast from foreign invaders. In 1777, a third type of settlement, the pueblo, was also established in California. Pueblos were civilian towns settled by Spanish citizens and intended to assist presidios with food supplies. In all, 21 missions, 4 presidios, and 3 pueblos were established in Alta California (See Figure 1. Map of the Missions of California). Even though each of these three different institutions were set-up to be self-supporting and independent, it would eventually be the missions that would provide economic support for the other two settlements in the form of food, supplies, and labor.

Although the primary purpose of the missions was to Christianize Native Americans, another crucial purpose of the missions was to colonize and hold territory for Spain. It was believed that converted Native Americans would hold the territory and eventually become Spanish citizens. Money to establish the Alta California missions came from a large private endowment known as the Pious Fund, which was originally established in Baja California by the Jesuits (Costello and Hornbeck 1990). Each mission received a grant of one thousand dollars from the Pious Fund at its founding. This money was used to purchase bells, tools, seeds, vestments, and other initial goods necessary for the establishment.

The Spanish missionaries carefully selected the sites for each of the California missions. The sites had to have good supplies of water and fertile soils for growing crops. Most important of all, the missions had to be located near Native population centers to be converted. Mission San Juan Bautista was founded in 1797. Number 17 of the 21 missions, it was located 25 miles inland from the Monterey Bay in a valley east of the Gabilan Mountain range (See Figure 2. Project Area Map). The mission was founded on a plateau west of the San Benito River and in a place where an ethnographic village known as *Popelouthchom* was located (Clough 1996). The natural attributes of the area made it welcoming place for settlement. There was plenty of timber for fuel and building, and the river provided a natural irrigation system.

2.1 Pre-contact Native Americans

The surrounding area of Mission San Juan Bautista was occupied by Native American peoples known as the Ohlone *Mutsun*. The history of this group is similar to that of Native American groups living throughout the coast of California (Heizer 1978; Kroeber 1976; Moratto 1984). The Ohlone Indians were spread as far north as San Francisco and south to Monterey. They were a coastal focused group, with inland groups such as the *Mutsun* utilizing more inland resources and supplementing their diet with frequent forays to the coast for resources.

The first European contact with the Ohlone *Mutsun* area occurred in 1769 when Gaspar de Portolá led an expedition through the area. Writings from the Portolá expedition, and several subsequent Spanish expeditions, provide valuable documentation of the Ohlone *Mutsun*. Summaries of archaeological and ethnographic data from the area can be found in resources such as, Breschini et al. 1983; Dietz et al. 1988; Hildebrandt and Mikkelson 1993; and Milliken et al. 1993. Overviews of the Ohlone peoples are generally summarized from Kroeber 1907, 1962, 1976; Levy 1978; and Milliken 1987, 1988, 1991. Primary ethnographic sources include, Kroeber 1907, 1962, 1976; Merriam

1968; and the notes of Harrington 1921, 1921-1938, 1933; Galavan N.d.; and Williams 1890. The following is a brief summary of the Ohlone *Mutsun* drawing primarily on the resources mentioned above.

The Ohlone *Mutsun* were complex hunter-gatherers whose fertile environment, efficient technologies, and societal institutions allowed them to develop a culture that was unusually complex for nonagriculturalists (Bean 1978: 681). Social organization included hereditary chiefs and elite, commoner, and "poor" classes. Land ownership was organized around triblets, which were complexes of villages under the leadership of a chief. Villages ranged in size from 20 to as high as 1,000 people and households typically included 5 to 10 people. Men controlled most of the political, religious and economic power. Residence was usually in the man's village, and family lineages were traced through the father's line. Women, however, enjoyed a relatively large measure of freedom and independence, and could hold positions such as shaman or medicine woman of a tribe (Wallace 1978).

A majority of the food, obtained from gathering and collecting, was primarily the responsibility of women. Collected food items included seeds, acorns, roots, berries, and other flora as well as shellfish and insects. The males were the hunters and brought down elk, deer, birds, jackrabbits, and other small game. Although the *Mutsun* were not known to practice agriculture, they did conduct seasonal burning of grasslands to promote the growth of seed bearing grasses and other plants (Heizer 1978). The acorn was perhaps the most important food resource to all California Native American tribes. Acorns were used as the base for almost every meal and seasonally collected from nearby oaks.

Technologically, the *Mutsun* were skilled at stone tool production, hides, and basketry weaving. Women made baskets that were so tightly woven they could hold water. Baskets were also used for carrying, trays, storage containers, serving bowls, and cradles. Trade networks were developed to obtain items not readily available in the tight regional context. The *Mutsun* regularly exchanged obsidian, salt, worked shells, baskets, and other commodities (Davis 1973). Father de la Cuesta, a missionary at Mission San Juan Bautista from 1808 to 1831 had a profound interest in the language of the *Mutsun*. He composed several glossaries and linguistic studies of the group as well as prepared descriptions of traditions and customs of the time (Mendoza 2002). Even with Father de la Cuesta's documents, the cultural practices of the *Mutsun* are poorly understood. Much of the *Mutsun* cultural traditions were lost during the mission period, as Native Americans were encouraged to change their practices to the Spanish economy and religious beliefs. Today, the Ohlone continue to fight for federal recognition from the Bureau of Indian Affairs.

2.2 Mission Life

Opinions vary as to how Native Americans came to the missions and whether they were willing or forced participants. It is known that missions were established near or at existing villages. Some scholars postulate that Native Americans were attracted to the missions for several reasons including, 1) Spanish technology interested them as did the lure of wealth in objects such as glass beads, 2) Catholic ceremonies with elaborate displays appealed to native peoples, 3) Hispanic agricultural practices, including raising of domestic animals, promised new food sources, and 4) the mission system offered individuals the opportunity of leaving native society and achieving a new, higher status

(Allen 1998; Engelhardt 1908-1915; Hoover 1985). It has also been suggested that Native Americans joined as a way of maintaining their status, because they recognized the power that the colonists held and wanted to be benefited by that (Allen 1998). Other scholars take a much different approach, suggesting that Native Americans were lured to the missions by gifts and occasionally forced into the missions (Gonzalez 1997; Castillo 1989). Castillo (1989) said that once Native Americans were baptized, they were no longer free to leave the missions. Young neophyte women were even locked into their dormitories at night. Additionally, the livestock brought by the Spanish began to devastate native food as land was overtaken for the missions. Livestock ate native foods such as acorns and delicate indigenous grasses and replaced them with coarser European varieties by seeds they hosted in hooves, fur and excrement (Sandos 1997). It is plausible that Native American groups were attracted to the missions not by the lure of the new domesticated animals, but because their own native hunting grounds and fields were being decimated and they could no longer survive on traditional resources.

The original buildings of Mission San Juan Bautista were a series of wooden (palisade) buildings, plastered over with mud and roofed with tules and earth. This construction is known as *jacal* (similar to wattle-and-daub structures). The first padres or missionaries assigned to the mission were Fray Joseph de Martíarena and Fray Pedro Adriano Martinez. A group of converted Native American from Mission Carmel were sent to the mission to serve as a nucleus around which to organize and train local tribes. The mission was dedicated on June 24, 1797. By December 31, 1797 construction of an adobe chapel, dwelling for missionaries, a granary, and four houses for mission guards and soldiers was completed (Clough 1996).

Temporary buildings at the mission were eventually replaced with more permanent construction. Central to mission life was the enclosed quadrangle also known as the Mission Courtyard, which included the church, priests' apartments, shops, storage areas, kitchen and the *monjerio*, sleeping area for young, unmarried women. Work for the interior half of the mission quadrangle was completed in 1800 (Mendoza 1997). The mission church was completed in 1812 (Mendoza 1997). Dwellings for Native American families were located adjacent to the mission complex and were mostly semi-permanent tule and brush structures.

Although only two walls of the original quadrangle at Mission San Juan Bautista still stand today, archaeological investigations have yielded the foundations of the third room block, while the fourth room block has yet to be located (Mendoza 1997). The Southeast Convento wing of Mission San Juan Bautista served as the primary living quarter of mission priests, known as *padres*, and included dormitories, the kitchen and reading rooms (Mendoza 1997) (See Figure 3. Map of Mission San Juan Bautista Complex). The Southwest and Northwest Convento wings are thought to have served as housing for unmarried Native American female converts and for the storage of provisions and supplies (Mendoza 1997). Existence of a two-storied tower (*el torreon*) at the southern end of the Southwest Convento was discovered during archaeological investigations of that area (Mendoza 1997). It is believed that two towers may have originally stood at the southern corners of the quadrangles and served as guard areas for missionary soldiers to help oversee not only mission activities, but also possible raids from outlying Native American groups. A well was also discovered to be located in the Courtyard Area as the result of archaeological investigations (Mendoza 1997).

Outlying buildings of the missions included milling facilities, tanneries, corrals, tile kilns, lime production areas, cemeteries, orchards, etc. *Ranchos* or *estancias* were established to keep livestock and grow crops for the mission. The subsurface features of the Neophyte Housing area of the mission were located through archaeological investigations and are the only outlying buildings of the mission with confirmed locations (Farris 1991).

Daily life at the California missions was one of structure and routine. Typical hunter-gatherers have been documented in recent times to work an average of four hours per day (Lee and Daly 1999). The Spanish working day averaged eight to ten hours. Native American men were employed to work at tanning, blacksmithing, wine making, tending of the mission herds, and care of the field and crops. Women on the other hand were taught to cook in the Spanish traditions, as well as sew, spin and weave wool. This was quite a departure from male and female oriented work roles in pre-contact society. Traditionally, Native American men hunted and women had much more autonomy and freedom in activities such as collecting of wild plants and processing acorn. Role reversals took place in the sphere of work at the mission. Whereas previously women had been responsible for collecting and processing plant foods, now men provided the bulk of work in the mission grain fields and the mills that processed the grain (Voss 2000). Men continued to supply most of the labor in the construction of buildings and the procurement of meat; herding mission livestock replaced hunting. Unmarried men and women were kept separate at the mission and unmarried women were even locked into dormitories at night.

Mass and prayer times were held on a daily basis, usually two to three times a day. Meals were often communal and were eaten three times a day. Gonzalez (1997) wrote in detail about the typical day at a California mission.

> "At dawn, the priests rang a bell to summon the neophytes from mission dormitories or quarters just beyond the compound's walls; all gathered in or just outside the church for morning prayers, they received their chores before retiring to eat breakfast. At noon, the bell sounded again to call the community, and unless absorbed in tasks far from the mission, all stopped their chores to pray the Angelus before sitting down to lunch. When finished, they returned to work until the bell tolled at sunset to end the workday. One more prayer or Mass again turned the neophytes' thoughts heavenward, and the assembly prepared for dinner" (Cook 1976; Gonzalez 1997).

Much of our knowledge of the day-to-day activities of the mission inhabitants come from the annual reports of the Franciscan Fathers. In addition to raw data about baptisms, marriages, and deaths of the neophytes, counts of livestock, and agricultural planting and harvests, annual reports include information on building construction and repair. These reports tell the story of the horrendous death rates of neophytes from European introduced diseases, the economic success of agricultural and livestock undertakings of the missionaries, and church embellishments added to impress and convince the neophytes of the glories of Catholicism (Allen 1996). Perhaps the best glimpse from the historical documents into the lives of neophytes at the missions comes from an official questionnaire that was sent out by the Spanish government in 1812. This questionnaire, known as the *Informes* of 1812, solicited information on the Native Americans of California (Geiger and Meighan 1976). Missionaries from all over California responded, including those at Mission San Juan Bautista.

The population of neophytes at Mission San Juan Bautista had the largest population of any of the California Missions. By 1823, Mission San Juan Bautista had at least 1,248 neophytes in residence (Clough 1996; Mendoza 1997). Prosperity and growth at the mission are also indicated by new construction activities, which included construction of adobe corrals, granary, a kiln, and weaving rooms. In 1821, at least two and possibly three room blocks were constructed outside of the mission complex to house neophytes (Farris 1991). Mission San Juan Bautista's agricultural and domestic holdings also continued to increase with over 2,957 bushels of wheat, 11,000 cows, 11,500 sheep, and 60 pigs reported in 1821 (Clough 1996).

2.3 Economic Changes at the Mission

The Spanish missions and presidios were established under the economic doctrine of mercantilism (Hackel 1997; McCusker 1993). Mercantilism depended on the economy of the mother country to promote the growth of the nation state. What this means is that a colony like California would produce goods and raw materials for Spain and purchase the finished goods that Spain manufactured. During the early years of settlement in Alta California (ca. 1769 to 1780) soldiers, settlers, and padres depended on supplies imported from Mexico. A naval post was created at San Blas on the west coast of Mexico solely to supply Alta California. Unfortunately, these shipments proved to be unreliable. In 1781, Governor Felipe de Neve reorganized finances for Alta California by eliminating the surcharge on imported goods, however trade with the Mexican ships continued to be sporadic and unpredictable (Hackel 1997). To compensate, the mission began to trade some of their surplus goods to the presidios. The military found mission products cheaper than those shipped from Mexico and rapidly the presidios became dependent on the missions for food and manufactured goods. This dependence was not one-sided. In return for goods sold to the presidios, the mission received a credit, which they redeemed in Mexico City through their purchasing agent (Hackel 1997). Through sales to the presidios, a mission could amass credit worth double or triple the eight hundred peso annual stipend allocated to its missionaries, thereby enabling it to purchase goods it could not manufacture, such as prayer books, trade beads, fine cloth, paper products, cooking spices, wine, chocolate, and rice.

Beginning in the later 1770s, pueblos were established in San Jose (1777), Los Angeles (1781) and Villa de Branciforte (1797), in the hopes that their civilian inhabitants would produce enough food to feed the region's soldiers (Hackel 1997). It was thought that this would help decrease the presidios reliance on the mission and supply ships. Pueblo civilian populations were unsuccessful and also came to depend on mission manufactured products. By the early 1880s, the missions had become the sole supporter of economic enterprises in Alta California and Native Americans the main laborers and producers.

Between 1805 and 1822 almost all government support for Alta California was cut-off as Spain began to struggle with Mexico and decrease its involvement in the foreign market. Between 1810 and 1821, only one official ship arrived from San Blas, Mexico (Hackel 1997). The new economic pressures forced upon the mission led to an increase in specialization of manufactured goods as well as smuggling of foreign goods (Archibald 1978). Although Spanish law prohibited foreign trade, clandestine trade took place with Anglo-American, British, and Russian traders. In 1812 the Russian-American Company established a colony on the northern coast of Alta California on land claimed by Spain (Spencer-Pritchard 1990). With the establishment of the company, the Russians were strategically placed to interact frequently with their Spanish neighbors.

In 1818, the ship *Kutusov* traded goods worth 36,719 rubles in Monterey for nearly 5,000 bushels of wheat, 7,509 bushels of beans, a ton of flour, 9 tons of tallow and lard, and a little over 6 tons of fried meat (Spencer-Pritchard 1990). Being that Mission San Juan Bautista is so close to the Monterey port, it is likely some of the goods sold and purchased involved this mission. On July 30, 1821 the *Kutusov* reached Monterey and sent a circular out stating the articles it had brought as well as its request for wheat, peas, and lard (Spencer-Pritchard 1990). Only a day later Mission San Juan Bautista replied with the items it had available for trade and how soon they could be transported to Monterey (Spencer-Pritchard 1990). It seems Mission San Juan Bautista was certainly anxious to trade its surplus agricultural goods for needed or wanted supplies.

Overall, the illicit trade of the missions during this time period met many of the immediate needs of the settlers, however it also fostered a dependence of the missions on the foreign market. Missions began to increase production of wheat, corn, barley and beans. They also began to focus on the procurement of cattle for hides and tallow that were in high demand in the foreign market. Wool that could be woven into blankets and cloth also increased in production. Missions began to increase requests for tools for mechanical trades and implements for husbandry, including iron knives and cleavers, shears for wool, iron cooking vessels, and looms and loom parts (Spencer-Pritchard 1990). All of these items would assist in the production of products at the mission used for trade.

In 1822, Mexico won its independence from Spain, ending Spanish rule in Alta California. Beginning in 1823, Mexican authorities opened California to legitimate foreign trade and encouraged new colonization by making land available to individual

Mexican settlers. California's reliance on foreign markets for the sale of its surplus goods accelerated dramatically during this time. In June of 1822, months before the Spanish flag was officially lowered in Monterey, the English trading company of McCulloch, Hartnell and Company, negotiated a three-year monopoly on the purchase of Alta California missions' surplus of hides and tallow (Ogden 1927). Missions responded by reorienting the mission economies to supply foreign demand for hides and tallow (Hackel 1997). Some scholars have suggested that the padres maximized production of livestock by diverting surplus labor away from other agricultural pursuits (Jackson 1992). It has been suggested that some missions took advantage of local resources and Native American skills by specializing production in grain crops, or leather goods, or blankets and garments (Hornbeck 1989). This direct response to increased trade can be seen in the increased construction at Mission San Juan Bautista that included a new granary, kiln, and weaving room (Engelhardt 1931). Mission San Juan Bautista experienced economic gain during this time period and continued to increase its production capabilities.

The commercial success of the missions brought them under the scrutiny of the growing Mexican civilian population in California. The missions held vast areas of land that were coveted by the civilians. A push to secularize the missions began in the 1830s. European introduced diseases were also beginning to take a devastating toll of mission neophyte populations. In 1825, for example, nearly a quarter of the adult population at Mission Santa Cruz was unable to work because of some form of illness (Fray Luis Gil 1825). In 1834, as a result of political and civilian pressure on the Mexican government, the California missions were secularized and almost six million acres of agricultural and grazing land were released. Although land was intended to be released to the neophyte populations of the missions, it was mostly granted to Mexican civilians (Hornbeck 1989). Neophytes were encouraged to stay at the missions and newly established *ranchos* as wage laborers, but many fled or were overcome with disease and died. By 1824, the Native American population at Mission San Juan Bautista had dropped to approximately 850 people (Farris 1991).

2.4 Secularization and Beyond

Mission San Juan Bautista was not secularized until 1835. By this time, most of the neophytes living at the mission had dispersed. There is record of only 63 Indians being emancipated by the secularization decree at the mission (Farris 1991). In 1836, the town of San Juan Bautista that surrounded the mission became the headquarters of a Mexican revolutionary group. It was renamed San Juan de Castro in honor of General José Castro who headed the revolutionary group. At this time the Mission San Juan Bautista was abandoned. It was often subject to looting. Eugene Duflot de Mofras visited the mission in 1842 and commented that, "All is lying waste. The neophytes are dispersed. The small number of them that still hang around, barely a hundred, are reduced to a state of extreme misery" (Duflot de Mofras 1844). In this same year, Edward Vischer visited the mission and observed, "The buildings were somewhat dilapidated, the stock was under private ownership, and but a small number of mission Indians, mostly old and decrepit were hanging around the premises (Weber 1978).

After the Mexican-American War of 1847, Alta California was annexed by the United States. In 1848, the Treaty of Guadalupe Hidalgo was signed, sealing the transfer of California to the United States. Discovery of gold in Northern California that same year changed the landscape, economy, and population of California forever. It triggered one of the largest migrations in human history.

The name, "San Juan de Castro" did not stick for the area, and the town was simply called, San Juan, during the Gold Rush period. An influx of American settlers came to the town and there is evidence to suggest that squatters set up camps in the ruins of the mission (Mendoza 1997). The town of San Juan Bautista was frequently subject to raids by Native Americans from the valley areas. Many of these valley Native Americans were former neophytes who had an intimate knowledge of the layout of the town and the mission (Farris 1991).

In February of 1848, Patrick Breen and his family, survivors of the Donner Party, arrived at San Juan Bautista and were given the Castro adobe to live in. This adobe was part of the original plaza of the mission and possibly the soldier's quarters during the mission period (Farris 1991). The Breens then purchased the adobe and lands in the vicinity of the mission. Their purchases included the area where the room blocks of neophyte housing once stood (Farris 1991). Known as the "Taix Lot" during the American period, the Neophyte Housing Area property changed hands several times, never to be returned to the possession of the mission. The title for the mission, however, was restored to the Catholic Church in 1859 (Mendoza 1997). Unfortunately, the mission had been reduced in size, and with the exception of the main church and one convento wing, many of its original buildings were confiscated, burned, and/or allowed to fall into ruin.

Mission San Juan Bautista was built along one the largest and most active earthquake fault lines in California, the San Andreas Fault. The 1906 earthquake that destroyed most of San Francisco, also caused extensive damage at the mission. That year there was unusually heavy rains that left the soils around the mission saturated. As a result, the north and south walls of the main church sustained water damage that weakened the massive walls so that the quake easily tumbled them to the ground. The earthquake caused the collapse of the south end of the convento wing, nearest to the previously collapsed guard tower as well. Restoration efforts at the mission took place throughout the 1930s. The mission was finally restored to its nineteenth century appearance in the late 1970s. Minor damage was sustained at the mission during the Loma Prieta earthquake of 1989. Restoration efforts at the mission continue to the present day. The mission is open to the public daily and mass is conducted in the mission Church. The mission remains under the ownership and care of Catholic Church. The "Taix Lot", where the Neophyte Housing once stood has been under the control and care of the California Department of Parks and Recreation since the 1970s.

2.5 Impacts of Mission Life on California Native Americans: Adaptation and Survival

It is important in this discussion of the history and background of the missionization process to understand the affects that the missions had on the Native American populations outside of the missions. In doing this, one can see just how far the impacts of the Spanish were and how they penetrated all traditional practices of the indigenous culture. This discussion will specifically focus on how the subsistence practices and foodways of the Native Americans was adapted and changed by contact with the Spanish both directly and indirectly.

There is unfortunately very little archaeological evidence in California pertaining to contact period (protohistoric) Native American sites that are contemporaneous with the missions (Barker 2005; Benté 2005; Farris 2005; Milliken 2005; Schulz 2005). Those studies that have been conducted tend not to include detailed, if any, information about the faunal materials recovered at the sites. The majority of these types of studies are "grey literature" produced by cultural resources management groups, often to meet some type of planning objective rather than to conduct in-depth, scholarly research. What is important about the archaeological evidence is that it indicates that Native American settlements outside of the missions were in contact with the Spanish, evidenced by the presence of trade beads and other European goods, and therefore their material culture was being affected or altered in some ways. Further study of these types of sites in California will only benefit our understanding of the influence of the missions on Native American life.

The Sanchez Adobe in San Mateo County was investigated in 1974 by Steve Dietz, Tom Jackson, and Stan Van Dyke (1970). Records from Mission Dolores in San Francisco indicate baptisms from an Indian village that is believed to be located at the present-day Sanchez Adobe. The presence of dark shell midden at the site was believed to confirm the presence of the prehistoric and possible protohistoric occupation of Native Americans. A reconnaissance survey was conducted at the site and four 1 by 2 meter units were excavated. The report indicated that the excavation took place in the possible original kitchen area of the Sanchez Adobe. All of the artifacts recovered were located in the first 40 centimeters of the units in hard adobe-like clay believed to be associated with the Sanchez Adobe occupation period (Dietz, Jackson, and Van Dyke 1970). Of interest to this discussion, was the second 40 centimeters excavated (80 centimeters in depth) that was noted to contain much darker soil with an abundance of organic refuse in the form of shell and bone. The bone proved to be that cattle and had been cut and possibly sawn, therefore it was concluded that the soils did not represent the pre-contact shell midden (Dietz, Jackson, and Van Dyke 1970). The researchers did not postulate that the cattle bones and dark soils could be associated with a later period, protohistoric occupation of the area by Native Americans who were incorporating domesticated animals into their diets. Unfortunately a detailed faunal analysis was not undertaken in this report, so musings on what the animal bones at this site represent cannot be undertaken.

A more recent archaeological study was undertaken in Yolo County by Miley Holman and Associates (Wiberg 2002). Although over 100 miles from any of the missions of the time, the work conducted here sheds some light on the far-reaching influence of the Spanish on material culture. In the summer of 2002 excavations revealed 122 Native American burials, 28 features, and substantial prehistoric and dietary constituents. Over 11, 338 bird and mammal bones, 6175 fish elements, and 3,349 grams of faunal shell (most if not all associated with shell bead manufacture) were recovered (Wiberg 2002). In addition, over 3,000 nutshell, berry, and other small seeds were recovered (Wiberg 2002). Dating using *Olivella* shells and clam shell beads/C-14 pairs revealed AMS dates ranging from AD 1650 to 1810 (Wiberg 2002). The most intensive use of the cemetery is thought to be during the historic period.

Most of the features of the Yolo County site were located on the periphery of the burial area. A possible butchering/processing station or disposal pit was discovered that was comprised mostly of elk remains. A canid burial was also discovered. Faunal remains from the site indicate a subsistence economy the emphasized the hunting of ducks, geese, deer, antelope, rabbits, canids, and fish (Wiberg 2002). Plant remains are dominated by acorn, but of interest to this discussion is the evidence for filaree and wheat food remains, both introduced by the Spanish. Faunal remains do not indicate Spanish influence or incorporation of domestic food types, however there are other indicators of the affect of missionization on this outlying aboriginal village. There were 221 glass "trade" beads recovered from the site. These beads were offered to Native Americans by the Spanish and Russians and were a highly valued item for trade. An indirect influence of the Spanish can be related to the high infant mortality rate reported at the site. Over 40 percent of the population recovered was comprised of subadults, and most (85%) were less than 24 months of age (Wiberg 2002). Historical accounts note that children were especially susceptible to the European diseases introduced by the Spanish (Milliken 1995). This burial ground may represent one of many pandemics that swept over Northern California during the mission era decimating much of the Native American population.

The Yolo county site does not indicate the incorporation of domestic/Spanish introduced animals. There are other indicators that indicate Native American lifeways were being affected both directly and indirectly. The lack of influence on foodways may be a result of the site's distance from the missions of the time. Influences like trade beads and disease may have moved across the landscape more quickly, as they could be introduced from neighboring tribes through trade networks or by the Spanish and

Russians explorers visiting more inland locations of California. Seeds could have been introduced by migrating birds.

Located within the territory of the Ohlone, a protohistoric cemetery was discovered (Hildebrandt et al. 1995). The site is located near Gilroy in Santa Clara County. It is recorded on the California Register as CA-SCL-714/H. Work conducted at the site included the digging of a utility trench that encountered five burials. Based on bead types and other information, the site is thought to date between 1795 and 1805 (Hildebrandt et al. 1995). Beyond glass beads and H-series shell beads, all artifacts are of non-European origin. Faunal remains were recovered at the site. All of the remains appear to be native species, with elk and smaller amounts of deer figuring heavily in the assemblage. The report suggests that most of the faunal remains discovered are associated grave offerings (Hildebrandt et al. 1995). Some of the elk and deer bone was burned. It was also reported that a small amount of saw cut bone (mostly large mammal) was spread sporadically throughout the trench. This bone was not associated with any artifacts, so it is difficult to determine its age, but based on the location of the bone near the surface of the trench it was concluded that it was of recent origin (Hildebrandt et al. 1995).

It has been suggested that the Santa Clara County site could be a hide-out for Native Americans during the mission era because of the presence of elk in the assemblage (Hildebrandt et al. 1995). Elk rangeland in California was typically in lowland, marshy plains. Prehistoric sites Native American sites of the area are typically located in adjacent alluvial fans. It not typical to find this type of site in the marshy plains, and therefore it is assumed that these sites were “hide-out” areas for non-Christian

Native Americans from the missions. A side note about the proto-historic archaeological studies, is that elk bones are very similar in morphology and thickness to cattle bones. If the bone remains are highly fragmented, or the faunal analyst is not specially trained or accustomed to noticing the differences in morphology between the two species, it may be possible to confuse cattle remains as elk (Bowen 2005). Thus, it may be possible that cattle or horse bones were present at the sites and were mistaken as elk by the identifier. This is supported by the fact that other European influences, such as glass beads and introduced botanicals were recovered at the sites.

Historical and documentary records make up much of what can be understood about the affects of missionization. Although no specific accounts are known from Mission San Juan Bautista, general ideas about the affects can be gleaned from other missions of the time. The present-day museum at Mission San Juan Bautista contains a list of the Native American tribes that the population of the mission came from. There are 27 villages listed and some are thought to correlate to modern day cities. Unfortunately, the precise location of these villages has never been confirmed. Missions were set-up in areas that contained large populations of Native Americans and were often located at existing villages. As mentioned earlier in this chapter, Mission San Juan Bautista was located at a known Mutsun Ohlone village. Some people believe that Mutsun that escaped from the mission were living in the hills and mountains a few miles away, however these hide-outs have never been located.

It is well documented that the introduction of domesticated animals and agriculture forever altered and destroyed the native California landscape (Castillo 1989; Harwood Phillips 1993; Hurtado 1988; Millken 2005). Environmental degradation intensified as a result of livestock grazing as well as suppression of controlled burning traditionally used by aboriginal groups. In the pueblo of San Jose the problem of overgrazing of cattle was such a source of antagonism between non-Christian native villages and Spanish settlers that Lieutenant José Argüello ordered settlers to keep their cattle together as a single herd (Milliken 1995). The cattle and plantings of the settlers of San Jose were destroying the greens and habitats the Santa Clara Valley natives were accustomed to eating.

Native American survival depended on adapting to the Spanish presence on the coast of California. The development of Native American livestock raiding illustrates this point. Soon after Spanish colonization began native people started stealing and eating mission livestock (Harwood Philips 1993; Hurtado 1988). Native Americans learned to ride horses and used them the hunt antelope and elk. In addition, it is noted that Native Americans commonly ate horse meat. Spanish expeditions into the interior of California noted evidence of horse raiding throughout the valley areas by the presence of horse carcasses and bones (Hurtado 1988). Horse raiders were actively sought out and punished by Spanish military, something commonly reported in mission documents of the time.

There are some examples of trade between the Native Americans and Spanish, such as at the pueblo of San Jose. In 1790, food and metal axes were traded to Native American groups. However, with fear of Native American attack, Governor Fages ordered the commissioner of San Jose to negate the trade saying, "No one is to go to the villages to, except to look for livestock, definitely not to look for sea otter pelts. That you take back any axes that the pagans have, paying them for them" (Milliken 1995: 98).

With fear of increasing attack, trade was ceased at San Jose and Fagan ordered, "No one is to give them (Native Americans) axes, plow blades, or other weapons or iron tools" (Milliken 1995: 98). This example shows that outlying Native Americans were mostly restricted in their access to Spanish foods and materials. It seems that access was limited out of fear of attack or reprisal. It may be that use of domesticated foods was only obtainable through violent measures such as raids and stealing.

There is some indication that neophytes at the missions were allowed to return to their homeland villages (Milliken 1995). However, after the Yuma victories on the Colorado River in 1781, neophytes were made to carry a pass whenever they left their mission communities. Those who did not return could be subject to punishment and death if caught. Fugitvism was also a commonly reported occurrence. Many times runaways from the mission were forcibly returned and punished by the Spanish. "We note that the pagan aggregate at these mission are generally people from their local environ. Those whose native lands are farther than six or seven leagues (16 to 20 miles), or those who have not been baptized are hard put to remain at the missions" (Milliken 1995: 96). Foodways, materials, and especially cultural practices could have been introduced to outlying communities by visiting neophytes or escapees.

Even native people that did not desire to join the mission were interested in obtaining Spanish manufactured goods. The only thing that they could offer in trade was their labor. There are many accounts of non-Christian Native Americans working at the presidios and pueblos. Milliken (1995) notes that men of the Santa Clara Valley villages were hired to help in the construction of the Monterey Presidio. At their arrival at the presidio provisions were given to the men on the king's account. Cotton blankets, trade beads, slaughtered cattle, and mules were all exchanged. This is another possible way that Spanish material goods may have been introduced into the outlying communities.

The Spanish settlement and conquest of California influenced Native American life outside of the missions by creating a new natural and social environment. Direct influences such as trade and indirect influences such as disease forever altered how Native Americans functioned, especially in their subsistence practices. Although archaeological evidence is minimal, historical and documentary evidence indicates that the use of domestic animals and Spanish foodways became important and was utilized outside the missions.

3.0 ARCHAEOLOGY

Archaeology at the California Missions is relatively recent. In the 1890s, a move arose to preserve and restore mission buildings as part of California's romantic historical past. Private benefactors made funds available to Catholic Church to renovate missions, but the early reconstructions were often based on inaccurate information. Larger scale, systematic reconstructions were carried out by state and local authorities, with some archaeological work, in the 1940s and 1950s. In the 1960s many university field schools focused on mission research (Costello & Hornbeck 1989). There was a shift from a sole concern with architecture to an interest in the cultural record, but it was not until the 1970s that the culture of the mission became the main research aim (Deetz 1978).

The following section is intended to give the reader a general understanding of the types of archaeological investigations that have taken place specifically at Mission San Juan Bautista. In doing this, it displays what little work has been conducted in and around the immediate vicinity of the mission and thus how little existing archaeological evidence the author had for comparative context.

The first documented archaeological work at Mission San Juan Bautista was conducted by John Clemmer in 1961 (Clemmer 1961). Clemmer investigated the Neophyte Housing Area and although his excavations were small, he was able to provide construction details and correlations between census reports and building construction records. His study was limited to defining the placement of the Neophyte Housing. He did not provide artifact analysis for the materials that he recovered. In 1985, the San

Cruz Archaeological Society, under the direction of Rob Edwards of Cabrillo Junior College, conducted an archaeological salvage recovery project in the plaza area of Mission San Juan Bautista (Simpson-Smith 1985). This project was conducted after artifactual material was noted in the backdirt of a trench dug by the Catholic Church during gardening activities. The main focus of the 1985 project was to recover material from the backdirt of the trench, profile the statigraphy of the trench and map the trench in relation to the surrounding structures. There is no known analysis of the materials recovered. In 1989, archaeologist Herb Dallas, with assistance from May Doane, undertook a study in the Neophyte Housing Area to learn more about the subsurface variance of cultural material spread spatially across the lot (Dallas 1989). Dallas dug 68 auger holes attempting to define the extant of the Neophyte Housing buildings. Some archaeological materials were recovered during boring, but no known analysis exists.

In addition to the aforementioned work at the mission, there have been over 11 archaeological and architectural studies in and around the mission, and there are seven, not including the mission and Neophyte Housing Area, archaeological sites recorded within a ½ mile of the mission listed on the California Historical Resources Information System for the State Historic Preservation Office (see Table 1). These are sites are discussed to provide the reader with an idea of the existing landscape around Mission San Juan Bautista, as well as to indicate the lack of mission era related sites in the area that could provide context and comparative data for the assemblages found at the mission. Most of these sites are adobes and other early homes of the first settlers of the area that post-date the mission era occupation. One recorded site of interest (P-35-000296) are the possible remains of the brick and tile kiln associated with Mission San Juan Bautista. No remnants of outlying ranches or *estancias* associated with the raising of the mission livestock have been located to date. Archaeological studies and sites at and near Mission San Juan Bautista are listed in Table 1.

Table 1. Archaeological Studies and Sites at or within a ½ mile of Mission San Juan Bautista

Study or Site?	**Title**	**Conducted By**	**Date**	**Location**
Site	CA-SBN-1H (Formal Archaeological Site Record for Mission SJB)	Pilling and T.Q. Sample	1949	Mission SJB
Study (s-3279)	The Archaeology of the Neophyte Indian Village at Mission San Juan Bautista	Clemmer	1961	Neophyte Housing Area
Site	National Register Nomination for the San Juan Bautista Historic District, California	Thompson	1971	In and within a ½ mile of Mission SJB
Study (s-3280)	History of the Plaza Hotel	St. Louis	1976	Within a ½ mile of Mission San Juan Bautista
Site	CA-SBN-87 (Formal Site Record for Juan De Anza Adobe built ca. 1820-1840)	Cooper	1979	Within a ½ mile of Mission SJB
Site	CA-SBN-861 (Formal Site Record for San Juan Bautista plaza erected between 1813 and 1874)	Cooper	1979	In and within a ½ mile of Mission SJB
Site	CA-SBN-111H (Formal Site Record for the Pico Adobe built ca. 1851)	Cooper (updated by Fitzgerald)	1979 (update in 1999)	Within a ½ mile of Mission SJB
Study (s-3293)	Archaeological Investigation at Plaza Hotel, San Juan Bautista	Younts	1979	Within a ½ mile of Mission San Juan Bautista

Table 1. Archaeological Studies and Sites at or within a ½ mile of Mission San Juan Bautista				
Study or Site?	**Title**	**Conducted By**	**Date**	**Location**
Site	CA-SBN-137H (Formal Site Record for the Benjamin Wilcox House, built ca. 1858)	McGregor	1981	Within a ½ mile of Mission SJB
Site	CA-SBN-136H (Formal Site Record for the Rozas House built ca. 1856)	McGregor	1981	Within a ½ mile of Mission SJB
Study (s-7516)	Archaeological Salvage Recovery Project at Mission San Juan Bautista	Simpson-Smith	1985	Mission SJB
Study (s-10309)	Contributions to the Master Plan EIR on Rancho San Benito	Breschini	1988	In and within a ½ mile of Mission SJB
Study	Archaeological Site Assessment of Mission San Juan Bautista SHP, FY 1988-89	Dallas and Doane	1989	Neophyte Housing Area
Study	Archaeological Testing in the Neophyte Housing Area at Mission San Juan Bautista	Farris	1991	Neophyte Housing Area
Site	CA-SBNJ-193H (Formal Site Record for the Neophyte Housing Area/ Taix Lot)	Farris and Hines	1991	Neophyte Housing Area
Study	P-35-000296 (Primary Record Site Form for possible location of Mission SJB's brick and tile kiln)	Berg and Costello	1999	Within a ½ mile of Mission SJB
Site	P-35-000294 (Primary Record Site Form for historical grove of trees associated with the entrance to a cluster of buildings including the home occupied by Antoine Taix in the 1870s.	Wheeler	2000	Within a ½ mile of Mission SJB
Study	San Juan Bautista: An Archaeologist's View of an Early California Mission	Mendoza	2002	Mission SJB
Study (s-26214)	Cultural Resources Evaluation of the San Juan Bautista Improvements Project in the City of San Juan Bautista	Cartier	2002	Within a ½ mile of Mission SJB

Table 1. Archaeological Studies and Sites at or within a ½ mile of Mission San Juan Bautista				
Study or Site?	**Title**	**Conducted By**	**Date**	**Location**
Study	Romancing the Potshard: A GIS Visualization of Ceramic Distribution at Mission San Juan Bautista	Gotshalck-Stine	2003	Mission SJB

3.1 Current Study Undertakings

The faunal study conducted for this thesis looked at materials from two separate excavations from two different areas of Mission San Juan Bautista. One part of the current study focused on materials recovered from the Neophyte Housing Area. These materials were recovered in 1991 by Dr. Glenn Farris of the California Department of Parks and Recreation. Dr. Farris had written an analysis of materials recovered from his excavation, but no formal analysis of faunal materials had been conducted. The current study also analyzed faunal materials recovered from excavations in the Courtyard Area of the mission. Excavations had been conducted in this area from 1995 to 2001 by Dr. Ruben Mendoza of California State University, Monterey Bay. No formal analysis of any of the recovered materials from these excavations had been conducted at the time the author received the faunal materials.

The following sections will discuss in detail the methods employed by Dr. Farris and Dr. Mendoza. This section is intended to provide a background for better understanding of the contexts from which the faunal materials were recovered and to support theories about the use of domestic animals at the mission and subsequent deposition.

3.1.1 Neophyte Housing Area

The Neophyte Housing Area is of interest because it is a known location that converted Native Americans occupied during the existence of the mission. It was the hopes of archaeologists, such as Dr. Farris, that not only would the architectural foundations of the housing be discovered, but also that associated artifactual material might provide examples of the adaptations of Native Americans to Spanish technology. It was hoped that examples of resistance or retention of cultural traditions of the Native Americans might be observed in the collection of material remains from the site.

In 1991, Dr. Glenn Farris with the Department of Parks and Recreation began excavations at the Neophyte Housing Area. Previous work by Clemmer (1961) and Dallas (1989) had determined the potential locations of the Neophyte Housing. Drawing from this work, Dr. Farris began his investigation.

Mission records report that in 1822 and 1824, 22 adobe rooms with tile roofs were built to house Native American converts at the mission (Farris 1991). These building likely housed neophytes for at least 10 years, until secularization of the mission. The buildings were described as standing in rows and being about 300 feet long with a common roof (Farris 1991). Each room of the building row was a separate apartment with a single door and window. Some records indicate that the Neophyte Housing Area housed both married and unmarried adults and children and that the doors to the apartments were locked at night (Farris 1991). However, it is likely that the Neophyte Housing Area actually housed converted Native American families that had lived at the mission for a considerable period of time. These families were Christianized. There subsistence and material practices were different than the newly arriving Native

Americans. New Native American converts and unmarried women were kept close the mission quadrangle complex and within the convento walls.

After secularization of the mission in 1834, the Neophyte Housing Area was abandoned. The buildings may have been used to house animals (Farris 1991). Many of the buildings were stripped of their roof tiles for the construction of adobes in the town of San Juan Bautista by newly arriving Mexican and American settlers. By 1850, the Neophyte Housing Area buildings fell to ruin and collapsed (Farris 1991). The land where the row housing once stood was utilized for animal grazing and crop cultivation until it was obtained by the California Department of Parks and Recreation in 1970. Although a storage shed was placed in the vicinity of the Neophyte Housing, no other development has taken place up to present.

Dr. Farris's excavation was able to locate two structures previously identified by Clemmer in 1961. One structure, deemed Building A, measured 216 feet long by 20 feet wide. The second structure, deemed Building B, measured 222.5 feet long by 37.5 feet wide. The two structures were roughly parallel with approximately 38 feet of space between them (Farris 1991). Trenching with a backhoe was conducted in perpendicular lengths to the foundations of the two structures. The trenches were dug to the yellow clay subsoil of the area to expose the sterile soil and allowed for a view of the native statigraphy. Inside the room blocks hand excavation was utilized.

Excavation was done by natural strata, also known as cultural strata, rather arbitrary levels. A system of expected strata was configured beforehand using a model of stratification also utilized at excavations of the Neophyte Housing Area of the Santa Cruz Mission adobe (Farris 1991). The projected stratigraphic layers and events are listed in

Table 9. Projected Stratigraphic Layers/Events at Taix Site Project. Each unit and stratigraphic layer was given a lot number for the purposes of cataloguing. Materials from the layer considered to be associated with post-destruction of the buildings was screened using quarter inch mesh. It was assumed that artifacts contained in this layer had lost a large degree of their provenience (Farris 1991). Layers associated with the building occupation were screened using eighth inch mesh. All sub-floor and hearth features were sampled for wet screening and floatation under more controlled conditions of the laboratory.

Overall, the amount and variety of artifacts recovered during the 1991 excavation were small. Table 2. Counts of Inventoried Materials – Neophyte Housing Area, summarizes the total counts of types of materials discovered. Dr. Farris attributes the artifact amounts to the simple level of material culture among Neophytes (Farris 1991). All of the dateable materials date to the first half of the 19^{th} century or earlier. Items include materials typically associated with pre-contact Native American material life, as well as materials introduced by the Spanish. The artifact assemblage paints a picture of Neophytes taking on several aspects of mission culture, but at the same time, trying to hold on to some of their pre-contact cultural traditions.

Table 2. Counts of Inventoried Materials – Neophyte Housing Area

Count		**Count**	
Construction Ceramics		**Ecofacts**	
Ceramic Tile	125	Unburned Bone	1214
American Period Brick	1	Carbonized Bone	275
Subtotal	**126**	Calcined Bone	496
		Shell	344
Household Ceramics	**59**	Shell Beads	3
Subtotal	**59**	Botanicals	244
		Subtotal	2576
Lithics		**Other Materials**	
Fire-affected Rock	1	Concrete/Asphalt	2
Groundstone	5	Adobe	1
Flaked Lithics	10	Wood	7
Other Lithics	12	Other	88
Subtotal	**28**	**Subtotal**	**98**
Metal		**Glass**	
Ferrous Metal	5	Glass Beads	22
Non Ferrous Metal	28	Glass	13
Subtotal	**33**	Flaked Glass	14
		Subtotal	**49**

Overall, the materials recovered from the Neophyte Housing Area seem to show a close relationship to food, including preparation, storage, and consumption. Faunal materials, including shellfish, make up over 78% of the total recovered assemblage. Following faunal materials, are botanicals at 8.2%, construction ceramics at 4.2%, and household ceramics at 2.0%. The original faunal analysis undertaken by Dr. Farris in his report summarized class sizes of the bones (i.e., cow sized, deer sized, dog sized). The faunal analysis did not specify further details. Other items recovered include: two pestles, one mano, two metates, two iron kettles, two iron knives, barrel hoops, and over 100 pieces of ceramics (including mission ware, Mexican lead-glaze wares, olive jar fragments, majolica, guanajuato wares, pearl ware, annular ware, edge decorated, underglaze floral designs, transfer print wares, Chinese export porcelain, white porcelain, and ironstone). Manos and metates are Spanish implements utilized to grind corn into meal and flatten tortillas. They are similar in shape and function to pestles utilized by the Ohlone and other Native American groups to grind acorns, seeds, and roots. Pestles, as well as manos and metates, were found in the Neophyte Housing Area rooms. The kettles and knives were probably used to cut-up and cook food and the barrel hoops were probably from barrels used to store foodstuffs. The variety of ceramics in the rooms indicates the availability of foreign ceramics that were likely traded for with foreign ships. In fact, there is no evidence for locally produced mission made ceramics at the Neophyte Housing Area of Mission San Juan Bautista, meaning most, if not all, ceramics were procured from outside sources.

Tools associated with the Neophyte Housing Area include chert and obsidian flakes (a by-product of stone tool production), flaked bottle glass, shaped ceramic pieces (possibly utilized as tools, an auger, a ramrod, scissors (similar to ones found at Mission San Antonio), two brass thimbles, and spent English gunflint). These tools indicate that pre-contact traditions of stone flaking (chert and obsidian) continued to be utilized by the mission Native Americans, but that new materials, such as glass and ceramics, were also being utilized for the same purposes. This has been seen in other California Mission assemblages including, Mission San Antonio, Mission Santa Cruz, and Mission La Purisima (Allen 1998; Deetz 1962; Hoover and Costello 1985). These new tool forms are seen as adaptation by Native Americans living at the mission to their new material world, and some say the creation of new "type" of material culture. The scissors and thimbles may hint at female work at the mission such as weaving and sewing, although it should be noted that one thimble recovered was very small and may have been made for a child's hand (Farris 1991). Thimbles were an item regularly noted on the cargo lists of trading ships (Farris 1991).

In addition to the mentioned materials, personal ornaments such as glass trade beads, olivella shell beads, a clamshell chione pendant, a rectangular shell bead, a phoenix button, and an ivory pin were recovered. Children's playthings included a black clay marble and a clay figurine. These materials indicated that one or more children were living at the Neophyte Housing Area.

3.1.2 Mission Courtyard Area

In 1995, Dr. Ruben Mendoza, a professor of archaeology, was contacted by Reverend Edward Fitz-Henry, pastor of Mission San Juan Bautista, about conducting work at the mission (Mendoza 1999). In an effort to better understand the architectural history of the mission, the Institute of Archaeology, directed by Dr. Mendoza, was charged by the diocese of San Juan Bautista with undertaking a multi-year project to excavate and interpret the architectural history of the mission (Mendoza 1999). As there was little record of building and construction in historical documents, it was the hopes that archaeological excavation could uncover some of the mission's past. Dr. Mendoza began work in the interior quadrangle of the mission, known as the Mission Courtyard in 1995. He conducted annual field programs and summer schools from 1995 to 2002. Dr. Mendoza hoped to test the premise that Mission San Juan Bautista was built on a convento-centered quadrangle, and that the dates of construction at the mission recorded by Fray Arroyo de la Cuesta in the annual *Informes*, might be matched with specific structures (Mendoza 1999). The architectural history of Mission San Juan Bautista is of special interest because only the Southeast Convento wing of the mission stands today. Additionally, documentary evidence such as photographs from the 1870s, and illustrations dating to as early as 1840, fail to provide depictions that a quadrangle ever stood at the mission (Mendoza 1999). Archaeological excavation was the only way to confirm that the quadrangle existed.

Dr. Mendoza placed excavation units in the Mission Courtyard arbitrarily using random sampling of a two-by-two meter grid he had digitally created using GPS. Units were dug in arbitrary 20-by-20 meter levels. All soils were passed through quarter inch mesh screens. No features or levels were sampled for wet screening of flotation in the laboratory. Auger tests conducted in the Courtyard Area confirmed that associated strata of the excavation units were consistent, and that strata were relatively uniform across the site (Mendoza 2004). The uppermost strata of the units appeared to be associated with trash deposits dumped into the abandoned room blocks after the structures went into ruin. The living floor or mission era occupation of the buildings, lay at a depth of approximately 50 cm. Sterile, native soil was encountered at approximately 60 cm throughout the site. All cultural material recovered was grossly sorted by material type (i.e., lithics, ceramics, bone, roof tiles, etc.) in the field and bagged by unit and level.

Excavations in 1995 revealed a massive 1.2 meter wide and 1.0 to 1.5 meter deep siltstone foundation footing in the southwest area of the Mission Courtyard (See Figure 3. Map of Mission San Juan Bautista Complex). It was concluded that this was the missing Southwest Convento wing of the mission. Originally, the Southwest Convento was believed to be a single barrel room block, but excavations in 2001 revealed that room was actually a double-barreled room block (Mendoza 2004). A large quantity of *tejas* (roofing tiles) were recovered on the uppermost layers of excavation. Underlying this was a five to ten centimeter layer of ash and charcoal containing carbonized wood and hand-forged iron nails. This ash layer was found throughout the site and it was concluded that this may represent a fire that collapsed this section of the mission quadrangle (Mendoza 1997).

In 1997, excavations in the southern corner of the Mission Courtyard revealed a siltstone foundation that Dr. Mendoza believed to be part of two-storied tower. Early illustrations of the mission from the 1850s indicate the presence of tower in the area, but later illustrations from the 1860s and 1870s do not depict the tower (Mendoza 1997). No specific documentation exists that speaks to the construction or destruction of a tower, nevertheless, Dr. Mendoza continued to excavate the area on the premise that the discovery was the foundation of the tower. He surmised that the tower was expanded to a double-barreled room block when the Southwest Convento wing was expanded circa 1812. Ash and rubble, as well as the discovery of two intact feather/shell edged earthenware platters and two American silver coins dating to 1868, provide key chronological indicators as to when and how the tower may have been destroyed.

A well feature was also discovered in the Courtyard Area. It is theorized that the well was in use throughout the mission period occupation of the area and that the well went dry sometime in the 1860s or 1870s. Lead works, scrap materials, fragments of oxidized and melted metal, and coal and coke fragments were found towards the bottom of the well. All of this materials are associated with the forging of metals. From 1870 to 1925 the well was used as a trash receptacle, this is evidenced by associated and dateable materials in the well. Additionally, architectural and kitchen debris were noted in high amounts in the well.

Although Dr. Mendoza has yet to publish a complete and comprehensive report about excavations taking place at the mission, some ideas about the activities taking place in the Courtyard Area can be derived from smaller reports he has presented at various disciplinary conferences and posted on his project website (Mendoza 1997; 1999; 2002). Animal bones are noted in large amounts throughout the units of the Mission Courtyard. Areas of high concentration include a trash pit area noted in units n12w42 and n12w44 and a rock lined hearth in unit n10w38 of the Southwest Convento wing. The trash pit is postulated to be from 1916 or later based on a 1916 dime found in the upper layers of the feature. The rock lined hearth had associated burned ceramics that date to the occupation of the mission and the room it is located in shows evidence of a barrel making workshop (Mendoza 2002). In Trench 3 of the Southwest Convento the articulated hindquarter of an immature calf was recovered. The calf remains were found to be in direct contact with the roof-tile shard layer created when the wing was burned and collapsed. In association with the calf were several stone tools, both primary and retouched flakes and related cutting tools which could have been used to butcher the calf. The cultural layer overlying the calf hindquarter consisted primarily of windblown silts and sands, suggesting that the area was largely abandoned as an area of activity immediately following the destruction of the Southwest Convento (Mendoza 1999). It also indicates that Native Americans using traditional technologies, were utilizing the mission for some sort of activity after the secularization of the mission. Additionally, the burned out area of the Southwest Convento closest to the tower area revealed the articulated tarsal and metatarsal bone of a cow.

Besides bone, a considerable amount of materials suggesting mission era occupation and possibly later of the Courtyard Area were recovered. Ceramic shards of majolica, Spanish colonial earthenware, Flo Blue, transfer print, shell-edged earthenware, galera, and possibly locally produced ceramic types were identified in excavated units. Majolica, galera, and other Spanish earthenwares were among the least types recovered. Transfer prints were relatively common, with the Willow Ware design pattern being the most common. Shell-edged earthenware were the most commonly recovered ceramic, and there were over a half dozen distinct variety types identified. Shell-edged earthenware was among the oldest of the ceramic types identified and it likely represents mission era occupation of the area.

The tower area units have revealed mostly burned artifactual material. Glass trade beads, pre-1830s era porcelains, and two 1860 silver coin all speak to a varied and long occupation of the tower. Other materials noted by Dr. Mendoza in various reports include, a hand-carved antler knife handle with copper rivets, an Ohlone Mutsun "gaming disk" fashioned from a floor tile fragment, a number of hand-blown Spanish colonial wine bottles, worked chert flake debitage, kaolin tobacco pipe stem fragments, glazed terra-cotta tobacco pipe bowls, various military ordinance (including two cannonball fragments for a 24" gun and two musket balls, one musket ball displaying evidence of impact scars), an iron adze head, a L-shaped door stop or related adobe wall anchor, a metal door hinge, various glass trade beads, and a terra-cotta figure of a matador. Recovered throughout the excavated units were large numbers of collapsed roof tiles and associate hand-forged iron nails. The variety and abundance of artifacts in Courtyard Area seems to indicate a location of active and heavy use. There is also evidence from the recovered materials that suggests the mission was used as a dumping area post-secularization and may have been occupied by Mexican, American and even Native American squatters throughout this later era (1840 to 1900).

It remains unclear as to how these buildings were destroyed. Some have suggested that hostilities arose between a Mexican administrator who owned several of the *ranchos* of the area and one of the Native American groups that occupied the eastern portion of the San Benito Valley (Mendoza 1997). It has been suggested that in 1838 the town of San Juan Bautista was raided by this Native American group and many of its buildings were set to fire. Perhaps the tower and Southwest Convento were victims of this raid? Dr. Mendoza has suggested that the Mexican administrator mentioned above occupied the Southwest and Northwest Convento wings of the mission (Mendoza 1997). Alternatively, it has been suggested that mission buildings fell to ruin after the secularization and abandonment of the mission and that a squatter's camp fire resulted in destruction of the buildings (Gotshalck-Stine 2003). It is plausible that the buildings caught fire during mission era activities, as cooking and fires were taking place in the room blocks (as evidenced by hearth features), and there were an abundance of flammable materials around, such as candles and the tallow used to make them.

Like the Neophyte Housing Area, the majority of materials recovered from the Courtyard Area seem to be faunal. Artifacts like flaked stone tools and traditional gaming pieces indicate a Native American presence at the site. Introduced European materials such as iron, ceramics, and glass confirm the overwhelming presence and influence of Spanish cultural adaptations. A complete catalog of recovered materials from Dr. Mendoza's excavations, as well as a more formal and specialized analyses of artifact groups, will help to determine the history of the Courtyard Area and the activities that may have taken place there.

4.0 METHODOLOGY: IDENTIFICATION AND RECORDING OF FAUNAL REMAINS

Identification of the faunal remains took place at Archaeology laboratories of the Anthropology Department of the University of California (UC) Santa Cruz, as well as at the California State Parks and Recreation Laboratory in Sacramento, California. Identification was assisted with the aid of two type collections. One was prepared and maintained by Dr. Diane Gifford-Gonzalez of UC-Santa Cruz. The second was prepared and maintained by Dr. Glenn Farris of California State Parks and Recreation. Where applicable, identifications were made to family, genus, or species level. However, the majority of the specimens could not be identified to such taxonomic levels and are indicated at class level distinctions where applicable. Whenever possible, bones and fragments recorded at the class level were sorted into size categories.

Each fragment of bone was given a unique catalog number, known as a Unique Bone (UB) number for recording purposes. Identifiable bones were recorded. Indeterminate mammals were classified as small, medium and large. Bones were separated and analyzed first by division within the mission (i.e., Mission Courtyard and Neophyte Housing Area), and second by associated time period contexts (i.e., mission period, post-mission occupation). Associations with specific features such as architectural elements and hearths were noted. The associations factor into later discussions in this thesis of the interpretation of the faunal assemblage.

Resources consulted for the purpose of identification included the following: Brown 1979, Daly 1969, Gilbert 1993; Gilbert et al. 1985; Glass 1951; Hillson 1986; Jameson and Peeters 1988; Klien and Cruz-Uribe 1984; Laundenslayer et al. 1991; and Marshall. All identifications were hand-recorded into a spreadsheet based on a faunal coding system developed by Greg Brown and Joanne Bowen of the Colonial Williamsburg Foundation (Bowen 2001). Identified fragments were then placed in a sealed bag, labeled with the assigned code and catalog number. The hand written spreadsheet was then transcribed into an Excel database, thus provenience of each bone was preserved in triplicate.

Whenever possible, bones and fragments recorded at the class level were sorted into size categories. Mammals are classified as small, medium and large. The small mammal category includes those mammals approximately the size of jackrabbit, raccoon, cottontail, or smaller. The medium mammal category includes animals the size of coyote/dog, deer, pronghorn, and sheep-sized animals. The large mammal category refers to animals the size of cattle, horse, mules, elk, and bear. Birds and fish were not recorded in size levels. It should be noted that in the case of all taxonomic classes, the size categories are subjective and are based on the size and thickness of each particular piece of bone; therefore, it is expected that the categories may overlap depending on the specific fragment in question.

In addition to element and taxon, other characteristics for each analyzed piece of bone include: portion of element; side, location of bone; age/fusion; relative size; condition of the bone surface (weathering); natural modification; cultural modification; and the presence and degree of burning. Bones of fragments exhibiting evidence of natural and cultural modification were generally examined under a microscope. Natural modifications include the presence of cut marks and butchering. Burned and possibly burned bone was recorded as charred, calcined, or indeterminate discolored. Calcine bone is white in color, the result of burning to a degree that the organic constituents of the bone are destroyed (Marshall 1989).

Both the Number of Identified Specimens (NISP) and the Minimum Number of Individuals (MNI) were calculated for the taxa from the site. The NISP is simply the tally of the bones and fragments identified to a particular taxon. The MNI refers to the minimum number of individuals necessary to account for all the bone pieces (NISP) identified for each taxon. No MNI numbers are generated at the more general taxonomic levels (i.e., order or family) if the bone pieces present could potentially be accounted for by individuals at a more specific taxonomic level (i.e., genus or species). MNI is not calculated for unidentifiable pieces (identified to only subphylum or class).

4.1 Recovery and Preservation

The majority of faunal remains from both the Courtyard and the Neophyte Housing Area were sieved through one-quarter inch mesh. Zooarchaeological research has indicated that one-quarter inch screening does bias faunal recovery toward “larger” bone specimens (Shaffer 1992). Shaffer (1992) concluded that mammals with live weights less than 140 grams are almost completely lost by one-quarter inch screening. Specimens weighing from 71 to 340 grams are poorly represented, and those weighing from 340 to 3,100 grams are represented by most elements, except the foot bones. Taxa greater than 4, 500 grams are represented by almost all of the elements of the body. Does this mean that cattle at Mission San Juan Bautista are overrepresented in the faunal assemblage? It should be considered when viewing the evidence presented in this thesis, however it is still very likely that the mission relied heavily upon cattle for subsistence based on documentary and historical documents of the time. Any additional archaeological studies at Mission San Juan Bautista should use smaller screen size fractions to gain a more accurate representation of small animals such as birds and fish.

Although cattle were the most identified taxa in the Mission San Juan Bautista assemblages, elements that are most likely to degrade and are more fragile (i.e., ribs, vertebrae, tarsals, and carpals) were actually the most identified. This helps to clarify questions about the overrepresentation of cattle in the assemblages due to differential preservation of elements, as well as, species types. An experimental study conducted by Nicholson (1996), indicates preservation varies between animals of similar size, that the state of remains before burial is of critical importance to their preservation, and that bird bone and fish appear to be particular resilient. Common assumption is that smaller or less dense (more porous) bones will be the first lost in an archaeological site, however there is evidence that intrinsic properties such as the amount of flesh, skin, fur, feathers, tendons, etc. on a bone affect its rate of preservation. Also, the amount of lipids and the porosity of its cortical layer affect preservation (Nicholson 1996). Experiments demonstrate that the cortical bone of smaller birds and fish will be less rapidly broken down than the cortical bone of large mammals. The Haversian bone of larger mammals actually provides a relatively easy pathway for penetrating fungae that destroys the bone (Nicholson 1996). Therefore, preservation does not reasonably explain the abundance of cattle bones at Mission San Juan Bautista. It may also strengthen the argument that cattle bone was the most utilized species, not just overrepresented because of recovery methods.

4.2 Number of Individual Specimens (NISP)

The relative frequency and/or abundance of species at a site can be determined in a variety of ways. Each method has its own limitations and sources of error. Thus, it is common to use several methods, recognizing that no single technique provides a completely accurate picture. There are problems with the NISP method (Grayson 1973; Klein and Cruz-Uribe 1984). In general, NISP values are particularly vulnerable to the effects of fragmentation that are different for each size and species. As a result, NISP will often exceed the actual number of animals represented in a sample, because the calculation does not discriminate between bones of the same or different individuals. Thus, one could count the same animal several times. NISP also automatically weights a species according to the number of identifiable bone present in the skeleton. Animals with more identifiable part in the skeleton will automatically be over-represented in the count (Daly 1969). Furthermore, this method gives large values to those animals that tend to reach the site intact or were butchered on site than those that are butchered and have selected parts brought to the site. Larger animals tend to be more heavily butchered (more pieces) than smaller ones. This leads to a problem of "interdependence" for NISP, because not every fragment comes from a different animal. Despite these problems, NISP may be an adequate measure of the rank order of abundance of species and broad patterns of presence in the site assemblage.

4.3 Minimum Number of Individuals (MNI)

MNI calculation is based on the most commonly recovered element of each taxon in the sample analyzed. In its traditional form, it is a raw count of the number of individuals necessary to account for all the identifiable bones (Reitz and Wing 1999). Often it incorporates information on the age and sex of the animals. It cuts through the problem of interdependence associated with NISP (Reitz and Wing 1999). MNI is based on the principle of paired elements. Since most animals are symmetrical; the number of paired elements from each side or from the midline indicated the minimum number of individuals needed to account for those elements. An example of this would be if there were five right humeri from the same species, at least five individuals would be included in the original faunal assemblage. While MNI is a standard zooarchaeological quantification medium, the measure has several problems.

The underlying assumption of MNI is that the entire animal carcass was consumed at the site. This is not always true. Unless the entire animal was butchered at the site, is it likely that the entire skeleton is present at the site. Finding one element does not mean the entire animal was consumed. However, MNI can be tested by examining distribution of elements from the entire faunal assemblage (Casteel 1976-77). Another drawback of MNI is that it overemphasizes the value of small animals (Odum 1971). Meaning one cow carcass would contribute more meat to the diet than 20 squirrel carcasses. MNI does not allow the researcher to get at the question of diet, as there is a major problem with aggregation.

The way in which archaeological excavation units are combined affect the number of individuals predicted to have been part of the collection (Grayson 1973).

Typically, either of maximum or minimum distinction method is used. With the maximum distinction method, the number of individuals is calculated for every excavation unit, level, and feature. With the minimum distinction method, the number of individuals is determined for the entire site. With the first method the number of individuals is probably too high and with the second method the number of individuals is probably too low. The zooarchaeologist needs to understand the relationship between contexts and functions. For the current zooarchaeological analysis at Mission San Juan Bautista, context and function factored greatly into the way that units and groups were divided. MNI calculations were grouped together for each area of the mission, the Courtyard and Neophyte Housing Area.

4.4 Biomass

In addition the aforementioned methods, the biomass method was also employed in the analysis of the faunal remains from Mission San Juan Bautista. Biomass is quickly becoming a standard procedure in zooarchaeology. Unlike the other methods, this method is based on the biological premise that the weight of the bone is related to the amount of flesh it supports. The method has its grounding in biological analysis. It was developed for zooarchaeological analysis by Elizabeth Reitz and other scholars (Reitz and Cordier 1983; Reitz et al. 1985, Reitz and Scary 1985). The method can be used to estimate the amount of biomass represented by a measure quantity of skeletal mass. The weight of the archaeological bone is used in an allometric formula to predict the quantity of biomass for the skeletal mass recovered rather than the total original weight of the individual animal represented by the recovered bone.

The biomass method provides a balance between NISP and MNI methods. It requires that each bone be weighed individually, however fragmentation of elements is not a problem as each species type grouping (i.e., mammal, bird, fish, etc) has a predetermined weight calculation. Biomass particularly counters the problem of interdependence, because it accounts for the presence/absence of partial and complete skeletons. Problems with biomass include the weight of the bone can be influenced by depositional factors, such as leaching, mineralization, burning, and excessive encrustation. However, it is a very useful method for comparison on a percentile basis within a site (Reitz and Scary 1985). As with MNI, allometric results will be related to archaeological sample size.

4.5 Element Distribution

Additional information about subsistence can be obtained by examining how elements were distributed across the site. Lee Lyman has found that butchering units defined from the recovered bone can be an informative way to estimate the amount of meat consumed (Reitz and Scary 1985). Some researches believe that certain cuts of meat are more desirable than others and thus could be status markers. Other have discovered correlations between the cost of meat, cuts, ethnic groups, and butchery patterns (Schulz and Gust 1983). At Mission San Juan Bautista element distribution is calculated for the Mission Courtyard assemblage as a whole and the Neophyte Housing Area as a whole. Smaller divisions are indicated in the interpretation of the faunal remains. Elements distribution at Mission San Juan Bautista indicates how domestic animals were being utilized.

4.6 Age Determinations

Determination of age at which an animal was killed is important because it provide data critical to the study of animal husbandry and agricultural economies. For the Mission San Juan Bautista analysis, epiphyseal fusion was noted where complete bones were present (O'Connor 2000; Reitz and Wing 1999). The process of epiphyseal fusion is based on the general development morphology of the bone. The epiphyses are the ends of the bone that fuse to the shaft of the bone as it grows. The rate at which the epiphyses fuse varies on either end of the bone and among different elements. The rate of epiphyseal fusion also varies from species to species and even within different breeds of the same species. The rate of epiphyseal fusion can be influenced by diet and environmental factors. There are some inherent problems with using epiphyseal fusion that were taken into account in this analysis (Watson 1978). Another way of aging an assemblage includes the rate of wear on teeth, but due to the largely fragmented nature of the Mission San Juan Bautista assemblage and the lack of whole teeth, measuring teeth was not attempted.

4.7 Taphonomic Character

Taphonomy is the study of the natural and cultural processes that effect the deposition, preservation, condition, and sometimes identifiability of organic materials (faunal bone). It is critical to look at taphonomic features in the study of zooarchaeology. Zooarchaeologists look to natural and cultural processes to understand what happened to a bone after it was deposited in the ground. Bones are especially vulnerable to alteration, damage, and destruction as a result of taphonomic factors and thus it is critical that taphonomic be taken into account to get at the most accurate reasoning for how and why the animals were deposited at a site. Studies by Gifford (1978), Gifford-Gonzalez (1991), (Lyman 1987, 1994), and others has contributed to our overall understanding of how these processes work on bone.

4.7.1 Naturally Modified Bone

Once deposited in the ground, bones may be affected by natural forces such as wind, water, or burrowing animals. Other natural agents such as moisture, sunlight, and bacteria may erode of destroy bone materials. When a deposit of bones is left exposed to the elements like wind, rain, and sun, a process called weathering occurs. Gradually, over time and depending on the type of exposure, the bones begin to decompose, eventually crumbling to dust. This process occurs differently in different environments, but all bones go through the same weathering stages I-VI, with stage I indicating little to no weathering and stage VI indicating complete disintegration of bone (Behrensmeyer 1978). Normally weathering is attributed to natural elements, but the activities of humans can and often do exacerbate the weathering process. One such activity is heat alteration, whether by actions as boiling or roasting.

Other natural effects that can be displayed on bone include effects from scavengers and predators. Bone that has been scavenged by carnivores will show evidence of tooth pits, gnawing marks, or furrowing – all typical of creatures like coyotes, wolves, and bears that exploit bone for its nutrients (Binford 1981). In addition to gnawing on bones, rodents like rats, mice, and gophers tend to move bones and other artifacts from their original location into small discrete piles. This is particular for small artifacts and bones from small animals. Rodent gnawing tends to leave wide, parallel grooves caused by the two front incisors.

4.7.2 Culturally Modified Bone

Bone that has been culturally modified is of interest to archaeologists because it reflects man's direct interaction with animals. The most obvious taphonomic effects left on bones by humans are butchery marks associated with processing and cooking meat. These include cleaver cuts, knife scores, hammerstone blows, scrapes and sawmarks. All are typically caused by the use of a tool, usually stone or metal.

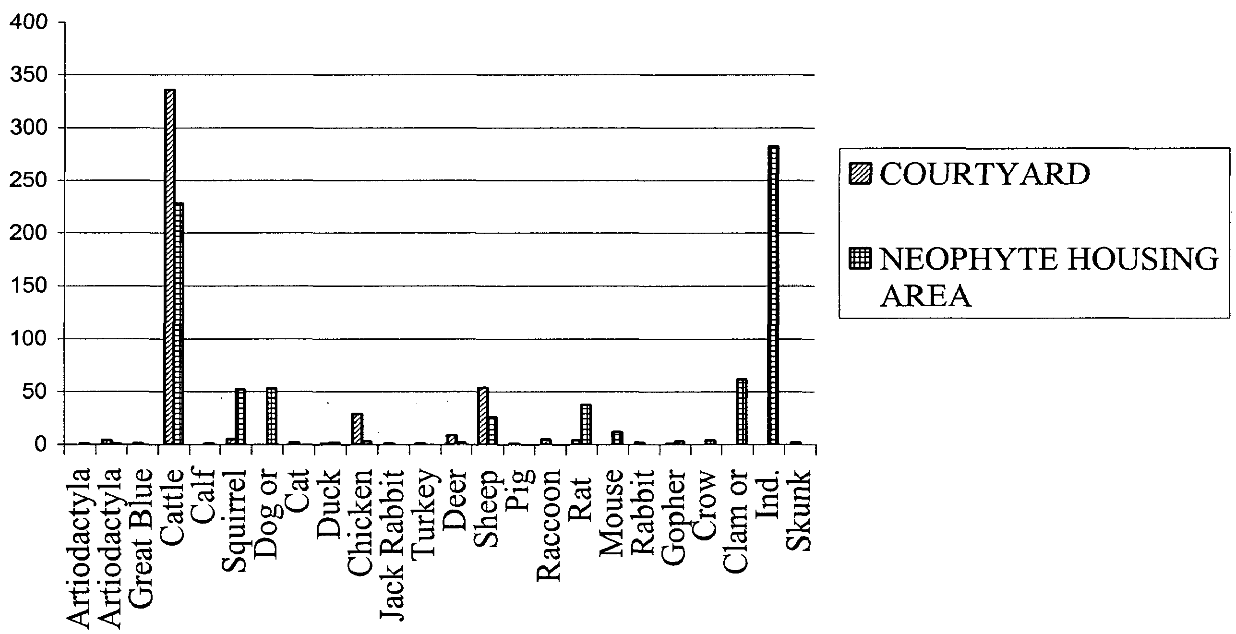
In most cases, the goals of butchery reflect the end-product goals, meaning the ways in which a carcass is butchered depend on the way is which the meat is meant to be processed, served and/or consumed (Gifford-Gonzalez 2004). These methods are sometimes cultural, but not always, and we should not assume that particular cultural groups would necessarily prepare food in pre-defined ways. Before making the leap from food to identity, we must consider that other factors influence those kinds of choices and actions. Access to availability of goods, power, and differences between who is preparing the food versus who is consuming the food are all some the factors that affect how animals are butchered and prepared.

The analysis of butchery marks at Mission San Juan Bautista took into account the presence of both metal and stone took utilization to butcher animals remains, as well as the difference in butchery techniques that possibly represents a time change at the site (i.e., the transition from metal tools used hack and cut bones during the Spanish era to metal saws to cut bones utilized in the American period). Sawcut bone was kept separate from other bones in the zooarchaeological analysis. Sawcut bone is used in a discussion involving a possible late period element at the site. Although there are not many studies that have assessed the distinction between metal and stone tool marks on bone, general observations, such as the fact that metal tools were more often utilized as percussive instruments to chop and cut bone, were noted. Stone tools were likely used in the skinning of animals and the slicing of meat. Use of tools to skin and slice may not leave distinct marks on the bones. Stone tool marks were never inferred to be on any of the bones analyzed from the assemblages. Rather, general commentary may have been made in instances where butchered elements were found in direct contact with stone tools and debitage (see Chapter 5). Overall, the distinction between the use of metal tools and stone tools to butcher animals at Mission San Juan Bautista was not made.

4.8 Identified Taxa

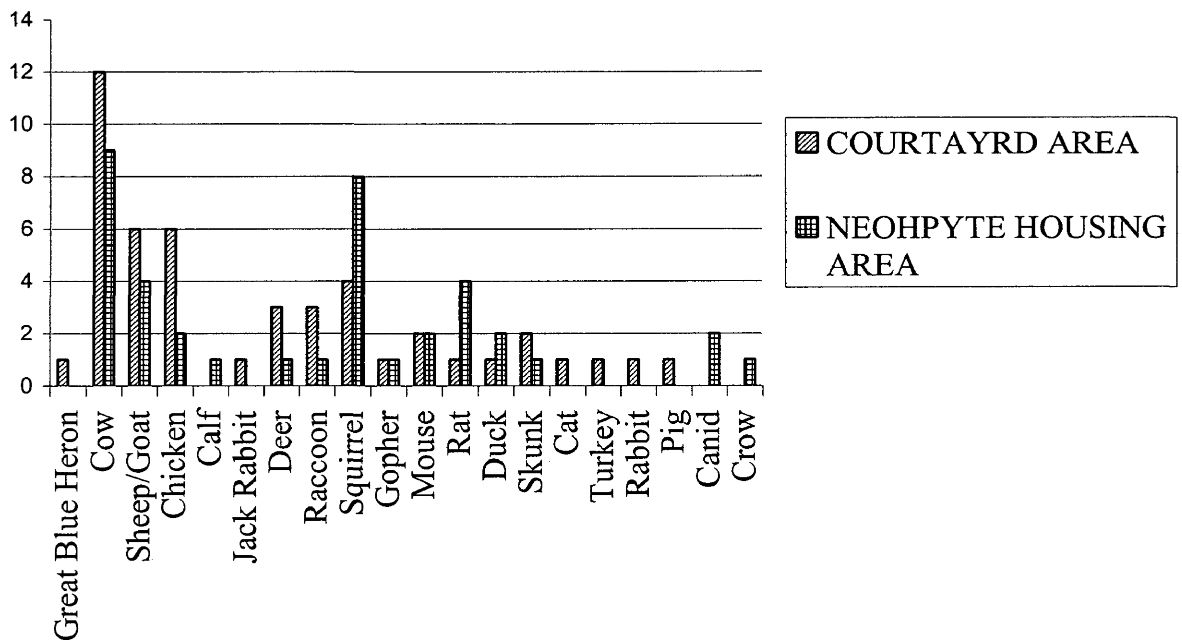
Of the 7,748 fragments of faunal remains recovered from the two areas of Mission San Juan Bautista, only 1,222 bones were identifiable to family, genus or species. This represents only 16% of the total assemblage. Fifteen genus and eight family classifications were made, with cattle (*Bos Taurus*) representing the most abundant, 46% (n=565). Other taxa identified include: squirrel (*Citellus beecheyi*), sheep or goat (*Ovis aries or Capra hircus*), pig (*Sus scrofa*), dog or wolf (*Canis spp.*), crow (*Corvus brachrhynchos*), duck (*Duck spp.*), chicken *(Gallus gallus*), deer *(Odocoileus hemionus*), mouse (*Peromyscus spp.*), rat (*Rat spp.*), gopher (*Thomomys bottae*), great blue heron (*Ardea herodias*), domestic cat *(Felis domesticus*), California jackrabbit (*Lepus californicus*), turkey (*Meleagris gallapavo*), skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), rabbit (*Rabbit spp.*) and various sea shells (*Bivalvia and Mollusca*) (See Table 3. Number of Identifiable Specimens). Approximately 84% (n=6,526) of the remaining assemblage could be assigned a class or order distinction (e.g. large mammal, medium mammal, small mammal, indeterminate bird, indeterminate fish, indeterminate bird or small mammal, (*Artiodactyla I* - sheep, goat or pig), (*Artiodactyla II* – Sheep, Goat or Deer), or indeterminate vertebrate). In some cases, skeletal elements were readily identifiable. These bones are known as minimally identifiable remains because they can be assigned to at least some taxonomic level.

Table 3. Number of Indentifiable Specimens (NISP)



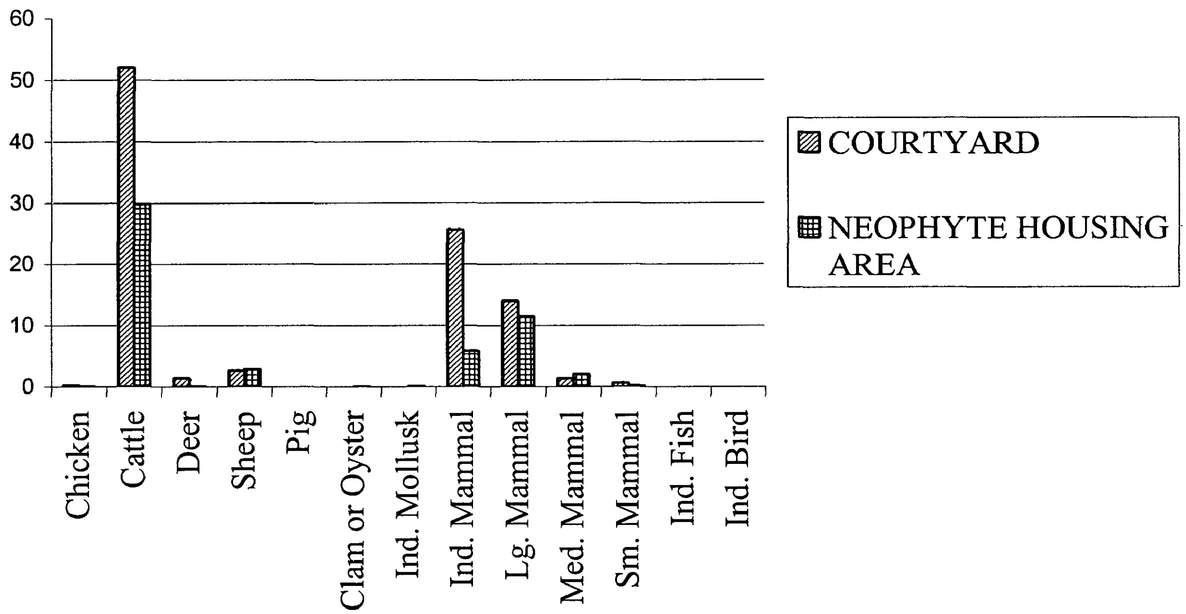
Of the minimally identifiable remains, unspecified mammals clearly dominate at 78% (n=6523). Large mammal remains follow this at 16% (n=1060), medium mammal remains at 3% (n=228), small mammal remains at 2% (n=110). Seven fragments identified as indeterminate bird are likely chicken bones from the Phasianidae, given that 32 identifiable remains belong to *Gallus gallus* (Chicken), the largest group of birds represented at the site. There were also two fragments identified as either bird or small mammal, being too small and obscure to distinguish between the two. Nine fragments were identified as indeterminate fish. Lastly, there were 11 fragments identified as indeterminate vertebrates. It was too difficult to determine what type of animal the remains came from.

Table 4. Minimum Number of Individuals (MNI)



Although the number of identified species is low, when combined with the biomass calculations, it is probable that the same proportion of the bones classified as cattle among the identifiable remains (i.e. 46%) can be assumed in the minimally identifiable bones classified as large mammal and possibly those classified as indeterminate mammal. That is to say, that of the 6,517 fragments identified to *mammal*, 94% (n=6,150) are very likely cattle remains that were too heavily fragmented for definitive identification. Element representation of identifiable remains at the site clearly indicate the presence of multiple distinct individuals (of *Bos Taurus*) in this deposit, and thus it is plausible that even with a low identification percentage, it can be proposed that the majority of the minimally identifiable remains are in fact cattle.

Table 5. Biomass



4.9 Taphonomic Origin of the Faunal Remains

The bones from the two deposits at Mission San Juan Bautista were in fairly good condition, with 35% of the bones weathered to stage IV, the majority of that (25% being from the Neophyte Housing Area): patches of fibrous bone with moderate flaking and cracking (Behrensmeyer 1978). It is likely that the weathering observed on the bones from the Mission San Juan Bautista assemblages was the result of heat alteration given the high percentage (26% of the total assemblages) of burning modifications recorded from both areas of the mission. The two deposits at Mission San Juan Bautista contained thousands of bones that may have attracted non-human consumers. However, out of the combined faunal assemblages only five bones show signs of carnivore modification. Given the close proximity of the deposits to the living quarters of the mission residents (sometimes within the buildings), as well as the high degree of burning exhibited on the bones, this is not surprising. Burning which destroys all organic matter, tends to make bones less desirable to scavengers (Lupo 1995; Pearce and Luff 1994). The presence of possibly wolf or dog remains in the Neophyte Housing Area deposit is interesting; given the presence of multiple skeletal remains. It is possible that the animal was a wolf. It may have been killed while feeding or attempting to feed on the remains discarded outside of the living area. It is also just as plausible that the remains were those of domesticated dog living in the area. Of the combined assemblages, only two bones could be identified as being gnawed by rodents. The presence of rat, mouse, and gopher remains in the two assemblages are likely intrusive. The fact that so few of the bones appear to be modified by either carnivores or rodents is a good indication that the deposit is undisturbed and intact.

Of interest was the lack of butchery marks on the bones from the Mission San Juan Bautista assemblages. Out of 7, 748 fragments, only 109 or 1.4% of the combined assemblages displayed signs of butchery. The majority (61% of the combined assemblage) of these marks are hackmarks, alternatively described as chopmarks (See Table 6. Distribution of Butchery Marks on Total Faunal Remains). The rest of the marks are either cutmarks or sawmarks and all of the marks seem to be made with metal tools. The sawmarks are of special interest, as they are not typical of a Spanish era assemblage and possibly represent a later occupation of the site. A few bones show signs of percussion blows and scratches that may have been caused by stone tools or at least non-metal tools, although the marks are indeterminate. Most of these bones are associated with articulated hind-quarter of a primitive calf that was found to be in direct contact with the occupation layer of the Courtyard assemblage buildings and associated with a possible obsidian scraper and various other lithic reduction flakes (Mendoza 1999). There is evidence of disarticulation of animal remains at the mission, with rib and invertebrae cuts being the most highly represented elements and butchered remains. It would also be expected that chops or cuts marks would show up on forelimb and hindlimb connections, as well as splits to the backbone. All of these dismemberments of a carcass are necessary to butcher a carcass, no matter who is performing the task.

4.10 Species and Element Representation

The following section will address specific species types that were recovered at the mission, the methods used to quantify the presence of this species at the mission, specific taphonomic characteristics of the bones, and a general discussion for the possible presence, or lack there of these animals at the site. This section is intended to provide a detailed analysis of the species present to further the discussion of the importance of domestic animals at the mission and how they contributed to the missionization of the aboriginal population.

4.10.1 Cattle

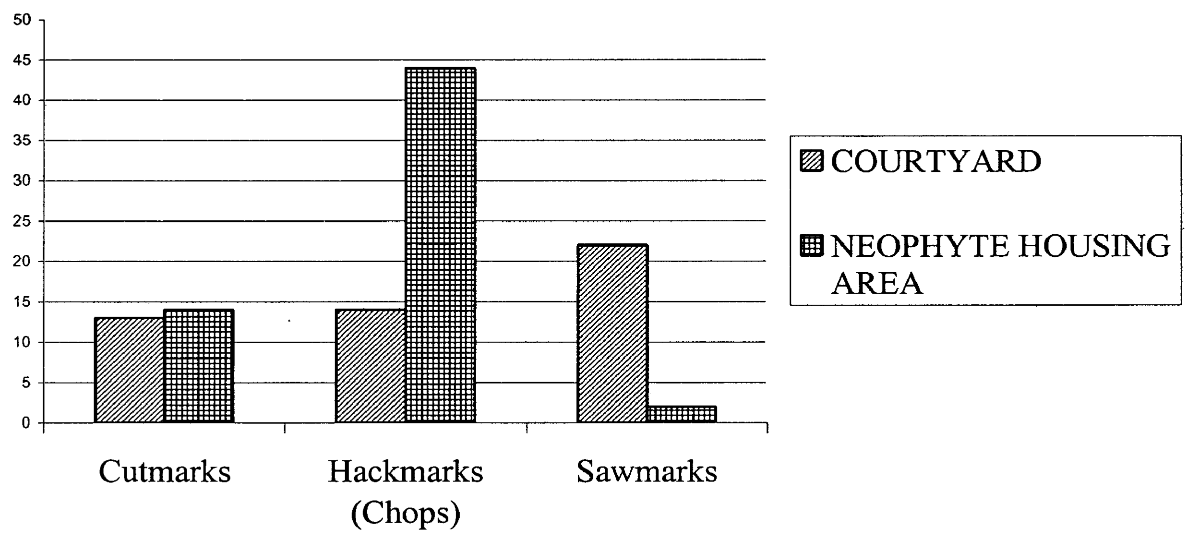
The NISP for cattle remains is 337 fragments for the Courtyard Area and 228 fragments for the Neophyte Housing Area, making up a total of 565 fragments. However, when overlaps, siding, sex, and age are accounted for, the MNI for cattle for the Courtyard Area is 12 (including one calf) and for the Neophyte Housing area, nine. That means that at least twenty-one animals are represented by the identifiable bones at the assemblages, and given the high volume of faunal remains recovered, although they are not definitively identifiable, it is very possible that more than twenty-one individuals are represented. As discussed previously, the high number of individuals that result out of just 565 bones can indicate that the majority of the unspecified mammal remains are in fact cattle remains. An estimate of the biomass represented by the identifiable cattle fragments indicated that 52.08 kilograms of cattle meat from the Courtyard Area and 29.84 kilograms of cattle meat from the Neophyte Housing Area, for a total of 81.92 kilograms.

Only 39 of the identified cattle remains from the Courtyard Area and 34 of the identified cattle remains from the Neophyte Housing Area exhibit butchery marks. Although it appears the majority of cattle remains were used in food-related activities, because of the intensity of burning, it is probable that some bones were utilized for other purposes. Of interest is the overall comparison of types of butchery marks. Although both assemblages contained saw marked bones, the Courtyard Area of the mission contained the majority (14% of the butchered cow bone). This may be an indication of a later period, post-mission era occupation of the site. It may be associated with habitation of the area post-secularization and abandonment of the mission.

At the Mission San Juan Bautista assemblages contain some very young specimens, <6-10 months, and some very mature specimens, >84-108 months, but most of the specimens that could be aged fell between 24 months and 48 months, or two to four years of age.

The elements represented by the identifiable cattle remains include nearly every element in the skeleton. The most abundant element was the ribs, followed by the carpals, tarsals, sesamoids, and phalanges; all bones of the wrist and foot areas. Bones ranged from highly fragmented in some areas of the mission, to almost complete in other areas. The presence of the wrist and foot bones is not surprising, as these are the densest bones in the skeleton, and they are the most likely to survive taphonomic effects like the extreme heat alteration that is observed in the deposit. Also fairly represented with

Table 6. Distribution of Butchery Marks on Total Faunal Remains (Comparative)



nearly equal amount are the forelimbs, hindlimbs, vertebraes, and cranial fragments including teeth. Of most interest to this analysis, is the high frequency of rib elements at both assemblages. Forty-four percent (n=125) of the total cattle elements from the Courtyard Area are ribs. In comparison, 55% of the total identified elements from the Neophyte Housing Area are ribs. That means that ribs make up 44% of the total elements identified from the two areas. Ribs displayed clear chop and hack marks showing intentional butchery of the fragments, in fact, ribs were the most identified butchered element in the entire assemblage (reader is referred to Table 7. Distribution of Elements Butchered). It seems from the butchery marks that the rib elements are not the result of fragmentation from elements such as weathering or bone marrow extraction, but are rather the result of purposeful disarticulation and butchery from the cow carcass. Given that ribs and vertebrae are difficult to assign to species, it is surprising that when combined, these make up the majority of elements identified at the site. From the element identifications and the function of both analyzed areas, it is not likely that whole cow carcasses were deposited. Thus, this shows a favoritism toward consumption or some other type of activity that utilized rib elements.

4.10.2 Sheep or Goat

The NISP from either a sheep or goat was 54 for the Courtyard Area and 26 for the Neophyte Housing Area. These NISP numbers are very perplexing given the number of sheep and goats reported to be present at Mission San Juan Bautsita throughout the occupation of the mission (Clough 1996) (See Table 10. Material Results at Mission San Juan Bautista for Agricultural Products and Livestock 1797-1832). Throughout a 35 year span, from 1797 (the founding year of the mission) until 1832 (secularization of the mission), sheep were shown to be present in equal or greater amounts to cattle. There is evidence that the flocks of sheep were kept away from the mission grounds in the surrounding plains. An 1827 report from Mission San Juan Bautista filed to the governor, states that over 10,500 sheep are maintained at ranchos to the north, south, east and west of the mission (Webb 1982). Mission San Juan Bautista had five or six ranchos for sheep by 1828 (Webb 1982). Groups of neophyte men occupied these outlying ranchos, maintaining the mission herds and were overseen by *alcalades.* Sheep were utilized more often for their wool, then for the meat they could provide at the California missions (Allen: 1998; Assad-Hunter: 1997; Cheever: 1983; Gust: 1982; Lagenwalter and McKee: 1985; Walth: 1990). It is likely that when and if sheep were butchered, it was done away from the Mission Courtyard and Neophyte Housing Area. There is also some evidence that beef was preferred over sheep meat by the Native peoples (Allen: 1998; Lagenwalter and McKee: 1985). Others have suggested that sheep meat was not eaten because there was such a bountiful supply of beef as a result of the intensive hide and tallow production that necessitated the killing of large amounts of cattle (Webb 1982).

Although much has been published about the industry of hides and tallow from cattle utilized in foreign trade, the production of wool related products cannot be overlooked. Woolen blankets and clothing were produced by women and children. Sheep were most likely sheared at outlying ranchos and the fleece was then carried to the mission in *carretas* or carts drawn by oxen. Once the fleece arrived at the mission it was placed in large kettles or cauldron with soap to wash away as much grease as possible. The fleece was hung on racks to dry and then carded for weaving. This process is evidenced at Mission San Juan Bautista by the presence of a mission period carder on display at the mission museum. Women were expected to weave at least 10 yards of woolen cloth a day and often worked from sunrise to sunset during the weaving season of March through October (Webb 1982).

Archaeological work conducted by Farnsworth (1987) at Mission Soledad indicated a mission primarily centered on wool production with lesser production of hides and tallow from cattle. Unfortunately, Farnsworth only presents documentary evidence about the presence of sheep in comparison to cattle at the mission. He does not conduct a faunal analysis that reflects that actual amounts present in the material assemblage of the mission. Archaeological work conducted at Mission Santa Cruz by Allen (1998) indicates the presence of sheep in lesser amounts to cattle during the early mission period, and interestingly, in the late mission period there are no individual sheep specimens reported in comparison to 23 cattle individuals. The current faunal analysis at Mission San Juan Bautista is likely to date to the late mission period, and therefore would correlate well with the findings from Mission Santa Cruz, where sheep is present in extremely lesser amounts to cattle in the faunal assemblages.

In contrast, Cheever's (1983) work at the San Diego Presidio found sheep to be present in equal amounts to cattle. Could this be representative of a population not exploiting the sheep for wool? Could this also represent a population with more "Spanish" type practices (i.e., soldiers and families) that preferred sheep or mutton for consumption? Cheever (1983) does note that both sheep and cattle bones displayed signs of intensive processing including breaking of the bones for access to marrow. This would correlate with the utilization of sheep for consumption.

Given the minimal representation of sheep remains at Mission San Juan Bautista, sheep may have been raised and processed for wool, not food. Thus would explain some of the discrepancies to other Spanish era assemblages like presidios and pueblos who weren't as actively exploiting and producing domestic animals for by-products to trade and supply. We have little documentary information about the wool industry at the missions before 1792, as padres were not required to report on this industry in their annual reports (Webb 1982). Webb (1982) has suggested this is why there is little documentary evidence of the process. What information can be gleaned form historical records must be done in a round-about way such as viewing Fray de la Cuesta's constant requests to Mexico for sheep shears, sewing implements and looms and loom parts as part of the importance of sheep and the wool industry at Mission San Juan Bautista

(Engelhardt 1931). Records indicate that a new weaving room was constructed at Mission San Juan Bautista in 1823 (Englehardt 1931). There is also evidence that suggests a "fulling mill" was built at the mission in 1817 (Webb 1982). The fulling process helped to felt and soften the fibers of wool, and if one was constructed at the mission it was one of only two known to be constructed at all of the California missions.

The sheep MNI was very high for such a small amount of bones. MNI calculations surmised there were six separate sheep or goat individuals present at the Courtyard Area and an additional four individuals present at the Neophyte Housing Area. The MNI count is so high, because there were quite a few of the same elements present in the assemblages. This may result in a biased representation, as it is very likely that there were not 10 complete sheep or goat individuals at the mission, but rather these cuts of meat were more highly represented. This is further illustrated by biomass calculations. Although MNI calculates that six individuals were present at the Courtyard Area, biomass calculates that only 2.64 kilograms of meat are represented by the total bone assemblage. Similarly, MNI calculations for the Neophyte Housing Area project that there were four individuals present, but biomass calculates 2.84 kilograms of meat. Nonetheless, these very highly fragmented sheep remains indicate at least some sheep were consumed at the mission.

Minimally identifiable remains do indicate the presence of medium sized animals in the assemblages. At the Courtyard Area, medium mammals represent 1.3% of the total assemblage (N=70), and the Neophyte Housing Area, medium mammals represent 6.8% of the total assemblage (N=158). It is not unreasonable to assume that the unidentifiable bone fragments represent sheep or goats. However, it must be kept in mind that these remains could also represent other medium sized species such as deer or pigs.

The age of the sheep or goats present at the site averaged >84-108 months, which is mature for consumed sheep and indicates that mutton, not lamb may have been consumed. It also indicates that that sheep were likely being utilized for the wool that they could provide, and only may have been consumed in times of shortage or need.

Butchery marks show up on 4 sheep elements from the Courtyard Area and 12 elements from the Neophyte Housing Area. Of these elements, the majority of the butchered remains are ribs. Two of the elements from the Courtyard Area exhibit sawmarks. These elements are a cervical vertebrae and a lumbar vertebrae. Because saws were not typically used until the later half of the nineteenth century in California, it is likely that these elements represent a later occupation period at the site. Both elements were recovered from the first 20 centimeters of excavations, and both came from the tower area of the Courtyard. This is an area that was likely burned and collapsed post-secularization (Mendoza 1999). The area was possibly inhabited by squatters that used the collapsed building as a refuse area (Mendoza 1999). This would explain the typically "English" style of butchery, as by this time American and English squatters had invaded the area.

All of the sheep or goat elements from the Neophyte Housing Area exhibit hack and cut marks more typical of the Spanish style of butchery. Most of these remains are rib elements, but also include a radius and sacral vertebrae. All of the remains are associated with the room A-9 of the Neophyte Housing and none display signs of burning or heat alteration. The ribs were likely butchered in the same fashion as cattle, with meat around the ribs utilized in traditional Spanish style soups and stews.

It is not surprising to find sheep or goat remains at the different areas of the mission, however it is interesting to view the lack of this species represented, when analyzed in conjunction with historical records of the time. Sheep at mission San Juan Bautista may have been maintained at *estancias*, or outlying mission ranches. Usually, neophyte *vaqueros*, or cowboys, lived in outlying adobe structures, maintaining mission herds of cows, sheep, and pigs, as well as crops such as wheat, corn, beans, or grapes. Sheep may have been brought closer to the mission for fleecing, but likely were not involved in weekly slaughters or annual *mantanzas*, as cattle were. Perhaps the larger amount of sheep in the Neophyte Housing Area represents a *vaquero* returning to his family living at the mission with mutton from the herds he maintained.

4.10.3 Pig

A single femur from a pig was identified from the Courtyard Area, and thus the NISP and MNI both equal one. The presence of a single pig bone is perplexing, although as mentioned previously, the minimally identifiable remains do indicate the existence of medium sized mammals. Because the NISP and MNI are so low, however, it is not advisable to assume that those remains are pig as well. The age of the pig was >15-24 months. The femur fragment would have represented a biomass estimate of only 0.01 kilograms of meat yield. The bone is also extremely calcined.

Interestingly, the fragment exhibits a hack mark. Since no other pig bones were recovered from the two assemblages, it seems possible that this bone is intrusive. We do know from historical records that pigs were present at the mission, although in much smaller numbers in comparison to cattle and sheep (Clough 1996) (See Table 10. Material Results at Mission San Juan Bautista for Agricultural Products and Livestock). Pigs brought to the missions from Baja California were originally from China by way of Philippine galleons (Webb 1982). Pigs were likely kept away from the mission dwellings and may have been used to eat scraps and waste from food production.

Other faunal analyses preformed at California Missions and Colonial Spanish sites have also found a lack of pig in their assemblages (Allen: 1998; Assad-Hunter: 1997; Cheever: 1983; Gust: 1982; Lagenwalter and McKee: 1985; Walth: 1990). This lack of pig elements has yet to be explained. It may be that the pig element at Mission San Juan Bautista represents food waste tossed into the Courtyard Area at a different time.

4.10.4 Chicken

The bones from chickens include 29 various elements from the Courtyard Area representing 1% of the total assemblage for that area, and three elements from the Neophyte Housing Area, representing only 0.1% of the total assemblage. All of the remains are distinctly chicken, and none of the remains exhibit butchery marks. MNI from the Courtyard Area calculates six different individuals present, and at the Neophyte Housing Area calculates two individuals. Burning was observed on a single calcined bone from the Courtyard Area. This bone is from an area where a concentration of calcined bone is present. An estimate of biomass for the chickens is 0.25 kilograms from the Courtyard Area and 0.07 kilograms from the Neophyte Housing Area. The unspecified bird remains indicate the presence of seven additional fragments of bird bone. The fragments could be chicken, but as with the sheep/goat, it should not be assumed.

4.10.5 Canidae (Dog or Wolf) and Cat

Canidae and cat remains at the mission likely represent domesticated species brought to Alta California with the Spanish. The cat is from the well area of the Courtyard Area and has a NISP of two. Its MNI represents one individual, and biomass was not calculated as it is very unlikely that cats were consumed at the mission.

The presence of cats is attested to with the existing *gatera* or cat door still standing at Mission San Juan Bautista today. Small openings were cut into doors to accommodate the comings and goings of resident cats. The first cats were brought to California in 1776 by the Anza expedition at the specific request of the missionaries "who urgently asked...for them, since they are very welcome on account of the great abundance of mice" (Honig 1997). The rodent population near missions was exploding in response to new food sources such as wheat, oats and corn being grown in mission fields. Cats were requested to keep the rodent population at bay. The small NISP for cats may indicate that these bones are intrusive into the site, as it likely that a cat carcass would be deposited as a whole. The elements may have been introduced through the burrowing activities of rodents present at the site.

The Canidae elements are concentrated entirely at the Neophyte Housing Area of the site. The elements were rather large and may represent a domestic dog or a wolf. The NISP for Canidae is 53 fragments. These fragments represent an MNI of two distinct individuals. Again, biomass was not calculated as there is no record of either the missionaries or the Native Americans of this area consuming dog meat. The 53 fragments represent various elements including: left and right mandibles, femur, tibia, verterbrae, humeri, innominate, ribs and various carpals and tarsals.

All of the elements were found concentrated inside Room A-9 of the Neophyte Housing Area. For the most part elements were concentrated near the top surface layers, with the exception of three elements from lower levels. It is likely that the three bones were moved to lower levels through the burrowing activities of rodents and are associated with the concentration of bones near the surface. Although no bones show signs of burning, many appear to be lightly weathered, possibly from exposure to the elements such as sun and rain. One of the bones found at the lower levels of the feature has evidence of rodent gnaw marks, supporting the theory that these bones were moved by rodent activities.

In the work of guarding livestock, particularly sheep, dogs played an important part. Mission records of 1817 speak of shepherd dogs (Webb 1982). Dogs were present in California before the coming of the Spanish. The remains of dogs have been found at several prehistoric sites (Webb 1982). Fray Crespi in writing to Fray Palou in 1770 notes that, "The Indians have many dogs" (Webb 1982). Native dogs may have breeded with dogs brought to California by the Spanish. One observer, Richard Henry Dane noted at Mission San Diego that dogs helped to guard drying adobe, fields and orchards, and particularly horses, cattle and sheep from predators such as coyotes, mountain lions, and other wild animals that prowled the pastures (Webb 1982). Are the dog bones at the Neophyte Housing Area from the faithful companion of one of the Native American *vaqueros* who worked the sheep pastures? It may also be that dogs or wolves were drawn to the Neophyte Housing Area after its abandonment. Because the Neophyte

Housing Area was used as dump site after its abandonment, dogs or wolves may have been attracted to the area by the smell of trash and subsequently killed by individuals living at or near the area. It is highly unlikely that the remains reflect a dog kept by the Neophytes while living at the mission and then buried upon death inside the house. They may represent remains that were found in outlying areas that were later disposed of in the abandoned buildings during some sort of cleaning activity.

4.10.6 Various Burrowing Rodents

Various rodent species were identified from the two site assemblages including: California Ground Squirrel, gopher, mice and rat. These rodents may or may not have been contemporaneous with the site deposit and may or may not been part of the consumption activities of the mission. The *Informes* from 1813-1815, indicate that at Mission San Juan Bautista the Native Americans, "catch rats, squirrel, moles, rabbits and other small animals which they formerly ate and even now continue to consume" (Geiger and Meighen 1976).

A total of 103 burrowing rodents were recovered from the combined assemblages, with over 90% of the rodents associated with the Neophyte Housing Area (n=93). Based on MNI calculations, at least 8 individuals are present in the Courtyard Area and 15 individuals are present in the Neophyte Housing Area. The combined assemblages yielded 0.51 kilograms of meat based on biomass calculations. The majority of the bones are identified as California Ground Squirrel. Only 4% of the burrowing rodent bones display signs of burning. All of the bones are charred except for one that is calcined. No bones show signs of butchery. The burrowing rodent bones are found throughout both site areas, with no distinct concentrations of bone.

The presence of rodents at the mission is questionable. It is not clear whether these bones are associated with consumption activities or are naturally present. There is some indication that a few of the other bones in the assemblages have been gnawed by rodents, but the damage is minimal. Rodent bones are very small and delicate and are easily crushed. It may be that the unspecified small mammals remains represent other burrowing rodents. It also possible that not all of the rodent bones are the site were recovered given the ¼" screen recovery methods used at both of the sites.

4.10.7 Other Wild Animals

The wild animal category consists of a various animals including: crow, duck, deer, jack rabbit, turkey, skunk, raccoon and cottontail rabbit. Shellfish remains will be discussed separately. Together, wild animals represent less than 1% of the total analyzed assemblage.

Mission records indicate that Native Americans were commonly excused to pursue traditional gathering activities and would often leave in great numbers for seasonal harvests (Geiger and Meighan 1976). However, various California mission archaeological contexts have yielded small amounts of deer, rabbit, bird, and fish in comparison to domesticated species quantities (Farnsworth 1987; Langenwalter and McKee 1985; Walker and Davidson 1989). Scholarly opinion as to the quantity and quality of the Native American diet in the missions varies. Sherburne Cook noted that even with the inclusion of domesticated meats, the mission diet was deficient, below the optimum in calories and nutritional balance for providing the body with sufficient resistance to disease (Cook 1976). In some missions Native Americans supplemented the food distributed by the missionaries with wild foods obtained through hunting or gathering, and in periods of poor crops or crop failures, they were sent out by missionaries to collect wild foods. However, others such as anthropologist David Huelsbeck argue that wild foods were not a necessary element in the Native American diet, but were in fact a luxury item (Huelsbeck 1986).

The NISP for deer remains from the Courtyard Area is nine fragments and from the Neophyte Housing Area is two fragments, with MNI from the Courtyard Area representing at least three individuals and one individual from the Neophyte Housing Area. Biomass calculations calculate approximately 1.48 kilograms of meat would be yielded from the combined elements of both areas. None of the deer bones exhibited signs of butchery or burning, so it is difficult to determine if these bones represent consumption activities, although it seems likely that the remains do.

Of interest, are the four leg and foot bone elements (tibiotarsus, tarsometarsus, and phalanx) of a crow present in the Neophyte Housing Area. At Mission San Antonio, the presence of birds such as the crow were suggested to represent aboriginal ceremonial activities by the neophytes (Lagenwalter and McKee 1985). Crows were not known to be consumed at Spanish sites, and were not generally eaten in aboriginal California, however they were closely associated with a number of ceremonial activities and attributed supernatural powers. These species were generally revered or feared and not regularly taken as game except for use in ceremonial contexts and regalia manufacture (Lagenwalter and McKee 1985). The presence of the crow at Mission San Juan Bautista is suggestive, but the evidence is circumstantial. It also very likely that the crow was scavenger at the site.

Although the presence of wild mammals at the two site assemblages is minimal it is indicative of activities taking place outside of the mission. If these animals were consumed, it is apparent that they contributed little nutritional value to the diet. It must also be noted that recovery techniques at the two assemblages may have biased the recovery of larger fragments (i.e. cattle and large mammal remains). Perhaps if smaller screens such as 1/8" and 1/16" fractions were consistently used, recovery of often smaller wild mammal bones would have increased.

4.10.8 Shellfish

The presence of shellfish at the site cannot be discussed in a comparative context, because shellfish remains were only analyzed from the Neophyte Housing Area. Shellfish was present in the deposits at from the Courtyard Area of the site, but were not undertaken for the analysis due to the inexperience of the author at shellfish identification at that time. The NISP for shellfish from the Neophyte Housing Area remains totals 344 highly fragmented pieces. Shellfish remains identified include various pacific clams and other unidentified mollusk species. No MNI was calculated for the shellfish, but it should be noted that the remains were very fragmented and do not represent many individuals. In fact, biomass calculations yield only 0.19 kilograms of meat weight from the 344 fragments.

Shellfish remains may further indicate the consumption of wild foods by Native Americans living at the mission. Perhaps shellfish were brought back to the mission during trips to the coastal port of Monterey for trade of hides and tallow. There is also evidence of shell bead and pendant manufacture at the Neophyte Housing Area site (Farris 1991). It has also been suggested that shellfish were utilized in lime production for hides (Costello and Hornbeck 1990; Schulz 1987). Without comparative evidence from the Courtyard Area of the mission it is difficult to speculate about the utilization of shell at the site.

4.10.9 Unspecified Mammal, Bird, Fish, and Vertebrates

Although unspecified mammal, bird, fish and vertebrates have been touched upon, it is important to note that 84% of the total combined assemblages fall into one of these aforementioned categories. Of utmost importance in this discussion are the mammal remains and their potential association with the identifiable cattle remains. Based on MNI calculations, at least 21 cattle are present in the assemblage, but the NISP (n=565) is very low (See Table 3. Number of Identifiable Specimens in comparison to Table 4 Minimum Number of Individuals). This points towards two possibilities: 1) the majority of identifiable cattle remains are still underground or deposited elsewhere, or 2) the majority of the fragmented mammal remains probably represent cattle. Both seem logical, as the Courtyard Area and Neophyte Housing Area are probably not the primary butchery location of the cattle and thus, bones of the cattle may be located elsewhere.

Supposing the same proportion of unspecified mammal remains are cattle as are in the total number of identified specimens (i.e. 94% of the 6,517 identified remains are cattle), how does that change the data? Like cattle, rib and vertebrae elements are well represented in the large and indeterminate mammal remains. Long bones and teeth are also represented. If the unspecified mammal remains are (i.e. 94% of the total unspecified mammal remains postulated as cattle) computed for the biomass estimate, they equal 57.08 kilograms of available meat (See Table 5. Biomass). Combined with the identifiable cattle remains, that makes 139 kilograms of available cattle meat from both sites. When we look at the combined biomass estimate, even with only 565 identifiable cattle bones, the presence of 21 individual animals makes more sense, although the amount of meat yield still seems too low. Given the high degree of burning, some of the original cattle bones may have disintegrated. Or, as indicated earlier, this represents only a sample and the rest of the cattle carcass is deposited elsewhere. It does seem plausible that 94% of the unspecified mammal remains are cattle remains.

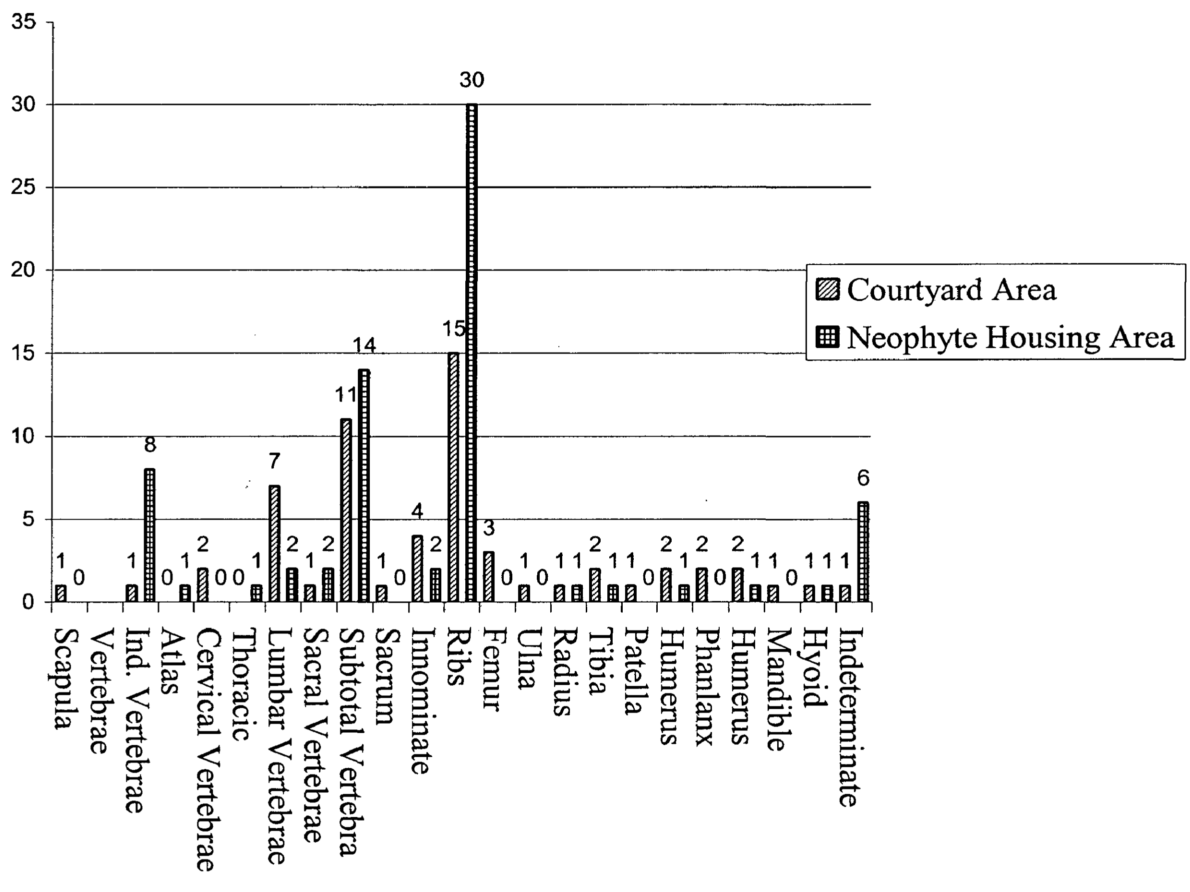
5.0 Interpretation and Discussion

It has already been suggested that the bulk of faunal remains from the Courtyard Area and Neophyte Housing Area represent the remains of typical food activities at the mission. The element distributions, species distributions, and butchery are the clearest pieces of evidence that attest to this. This section will address even more specific data, drawing from other characteristics of the bones, historic accounts, comparative faunal studies and anthropological theory, to suggest that two distinct time periods are represented in the assemblages: (1) primary food waste from cattle and other domestic meat during the Mission Period and (2) waste disposal and evidence of squatters at the mission post-secularization. Interpretation of the faunal data will lead into a discussion of how the material may shed light on the economic practices of the mission.

5.1 Element Representation in the Assemblages

Taking a closer look at the faunal remains that show signs of butchery, it is observed that the majority of the cuts are from the rib and vertebrae portions of cattle. Also, when looking at the greatest portion of elements, both from the identified cattle, as well as from the indeterminate mammal and large mammal, the majority of the remains are ribs and vertebrae. This is surprising, as rib and vertebrae are more fragile than other elements and are more likely to fracture and fragment hindering identification. The survival of the rib and vertebrae elements is testament of the good to excellent overall condition of the bones. As mentioned in the previous chapter, the rib elements display the most signs of butchery (see Table 7. Distribution of Elements Butchered) and appear to be mostly whole, relatively large elements. The rib elements are the greatest butchered in both the Neophyte Housing Area and the Mission Courtyard areas, further confirming the importance of this meat cut in the diet.

Table 7. Distribution of Elements Butchered (Comparative)



Cattle were in high demand at the mission, not only for the meat that they could provide, but also for the hides, tallow and other by-products that were produced from them and vigorously traded with English and American trade ships at the Monterey Presidio. Cattle dominated the current study assemblages, and together with butchery evidence suggest a heavy reliance in the missionary and neophyte diet. Documentary evidence also supports this observation. When missionaries and travelers mention the neophyte diet, they often note the distribution of meat (Lasuen 1965; La Perouse in Margolin 1989; Asisara in Harrison 1892).

Zooarchaeological studies at other mission have shown a pattern of heavy reliance on domestic animals, especially cattle and sheep. Walker and Davidson (1989) noted a preponderance of cow and sheep bones at Mission Santa Inés. At Mission San Buenaventura, researchers estimated the importance of beef in the diet of neophytes at 80 to 90% based on the overall weight of the bones in comparison with the rest of the faunal assemblage (Romani and Toren 1975). The same large percentage of cattle remains in neophyte associated trash areas was found at Mission San Antonio (Lagenwalter and McKee 1985). Also of value to this study are faunal assemblages from later Mexican period sites. At the Cooper-Diaz Adobe in Monterey, Gust (1981) described a faunal assemblage made up of more than 80% cattle remains. Deposit areas form the Mission Adobe at Santa Cruz show a similar pattern for the Post-Mission Period (Walth 1990). Most recently, work at the Peralta Adobe, has revealed that an overwhelming 90% of the bones recovered are likely associated with cattle (Smith-Lintner 2004).

Historical evidence has revealed that Spanish style butchery took place with iron tools, most often a cleaver or axe, and additionally a knife for the stripping of the meat from the bones. It has been noted in the *Informes* that slaughters of cattle took place at Mission San Juan Bautista on a weekly basis (Geigher and Meighan 1976). It also known from documentary evidence that seasonal slaughters known as *mantanzas* took place in the summer months, with July and August being the most cited months (Belden 1878; Davis 1889; Gust 1982). Some missions slaughtered on average 1,000 cattle a year, others up to 2,000 (Davis 1889; Wessel 1980). In some cases, only a certain number were slaughtered at a time, for example 50-70 cattle would take approximately four days to complete (Davis 1889).

Historical evidence indicated that butchery was the same whether it was a small weekly slaughter or a large *mantanza*. Documents have provided description about how the *mantanzas* took place. Usually the cattle were corralled together in a specific area located away from the central mission grounds, possibly at nearby *ranchos*. Once the cattle were rounded up, the *mayordomo* selected which animals would be slaughtered and skinned. It has been described that butchering process began with Native American *vaqueros* lassoing the cow and throwing it to the ground (Wessel 1980). The animal was killed by cutting the neck and carotid artery. The carcass was butchered on the ground or on a butchering rack where it was hoisted and hung upside down to be skinned. The hide was removed as carefully as possible to prevent damage. The fattest portions of the bullock, the *manteca* and *sebo*, were removed to make cooking grease and tallow. Tallow would be made into soaps and candles. As fat was removed it was taken to another area of the mission to be boiled and processed. Cattle were typically slaughtered around 3 years of age (Davis 1889).

In addition to historical evidence, work by zooarchaeologist has been helpful in determining the specifics of Spanish butchery methods. Primary butchery of cattle involved removing meat from the carcass by cutting the attachments and then stripping away the bones (Gust 1982). The head and feet were probably cut away from the carcass for further processing (Lagenwalter and McKee 1985). The meat of the limbs was thoroughly stripped off after the muscle attachments to the bones were cut. The rib cage was probably separated as a unit and the vertebral column processed as well. It must be remembered, that Spanish butchery did not involve side pieces, plate pieces, or quarters of beef as traditional English and American butchery does. Stripping of the meat was conducting for drying and jerking of meat. Bones and other meats were reserved for primary water-based meals of *atole* and *pozole*, an easily prepared meal that could stretch to feed large groups of hungry neophytes.

There are multiple lines of evidence to suggest that the assemblages at Mission San Juan Bautista represent the remains of consumption activities. Because of the small size of the features and their proximity to the dwelling quarters of the mission, they probably do not represent primary butchery locales or an annual *mantanza* site. The species represented, the number of individuals, and the type of elements, suggest that cattle ribs and vertebrae dominate the two assemblages. Moreover, it is possible that the minimally identifiable bones are also cattle, thus potentially increasing the number of individuals in the deposit and the amount of ribs and vertebrae present. Comparison of the current assemblages to *mantanza* sites and other Mission Era sites leads to the conclusion that the deposits at Mission San Juan Bautista reflect the utilization of cattle for consumption.

Looking at the zooarchaeological work conducted at *mantanza* sites, an interesting picture of primary butchery locales in relationship to the current analysis begins to emerge. *Mantanza* sites differ from the Mission San Juan Bautista assemblages because they are primary butchery locations, whereas the faunal remains from the mission are suggestive of a secondary processing and consumption location. Gust's (1982) work at the Ontiveros Adobe characterized what she believed to be the primary observable archaeological characteristics of a *mantanza* site. She inferred primary butchery from the examination of historical documents, as well as observations from the faunal assemblage she analyzed. This included that the site location was separate from the adobe. It contained a large number of whole or partially articulated carcasses, and no other trash except associated tool debris was present at the site. In her conclusions from the Ontiveros Adobe report, Gust (1982) notes that the "types and numbers of bones present (in Feature 1) indicate differential disposal of elements of the carcass. The ribs and vertebrae were noted to be absent in particularly high frequency. They appear to have been segregated from the mass of butchering debris for disposal elsewhere. Whether special processing preceded this disposal is not known. The bone elements that are missing at this primary butchery locale (ribs and vertebrae) are the same bone elements that are found with such high frequency at Mission San Juan Bautista.

Another zooarchaeological study that echoes Gust's work is a recent study conducted by Smith-Lintner (2004) at the Peralta Adobe in Oakland, California. Although the Peralta Adobe represents a site that was occupied post-secularization by a Mexican family, the process of Spanish style butchery remains the same. Smith-Linter believes the deposit at the Peralta Adobe represents a primary, one-time use, *mantanza* site. She notes that, "The only elements that appear to be consistently absent from the identifiable remains are the vertebrae and ribs." (Smith-Lintner 2004). Unlike Gust, who suggests the rib and vertebrae elements were processed in another area, Smith-Lintner suggests that the bones are fragile and are likely part of the unspecified mammal fragments that make up the bulk of the assemblage. She is suggesting that the cattle are deposited whole at the site, and that this one-time butchery event represents procurement of hides, and no other by-products, for trade. Yet, upon further analysis of occupation areas of missions, presidios, and ranchos, it may behoove Smith-Lintner to postulate that ribs and vertebrae from the Peralta Adobe cattle were taken from the carcasses for further processing and possible consumption in another area.

In comparison to the *mantanza* site are the zooarchaeological studies conducted in the living quarters of missions, including room blocks within the mission quadrangle and neophyte housing areas. Archaeological work conducted at the Neophyte Housing Area of Mission San Antonio found that rib, vertebrae, and smaller bones such as carpals, tarsals, dentines, and phalanges, bones that would adhere to meat tissues, were present in the greatest abundance (Lagenwalter and McKee 1985). Lagenwalter and McKee (1985) observed a recurrent pattern of butchery on both rib bones of cattle and sheep. Butchery involved included the segmentation of ribs by cutting with a cleaver or fracturing with a blunt tool. The yield of this cutting was segments of rib from the area below the neck of the rib, midshaft and distal end that were from seven to 15 centimeters in length (Lagenwalter and McKee 1985). The cut of meat is analogous to the spare rib cut of American meat-cutting tradition. One other aspect of rib cutting at Mission San Antonio reported was the breakage of ribs at the neck so that the head was separated (Lagenwalter and McKee 1985). Lagenwalter and McKee concluded that this was done to facilitate removal of the rib cage from the carcass during the primary butchery phase. No evidence of marrow extraction from the rib bones was noted.

Zooarchaeological work at the Angled Adobe of Mission Santa Cruz was conducted by David Huselbeck from 1981 to 1984 (Huselbeck N.D.). He conducted basic faunal identifications on deposits that likely date to the early mission period. Although identification was minimal, general trends were noted, including that limb and rib bones were the most common among the large mammal bones, likely cattle (Allen: 1998). He also noted many vertebrae breaks at weak points in the joints, and that the rib elements were highly fragmented (Allen 1998).

Unpublished zooarchaeological work conducted at the Sonoma Mission and Barracks resulted in a preponderance of rib elements in comparison to other elements recovered (Supancic 1980). Together, ribs and vertebrae represent almost 37% of the elements identified. Although not a mission, work at the San Diego Presidio also yielded high amounts of rib and vertebrae fragments (Cheever 1983). Cheever (1983), faunal analyst of the San Diego Presidio collection, noted that vertebrae and rib fragments were highly fragmented, something not observed at the majority of mission sites from this same era. She attributed this as a sign of dietary stress, and that soldiers stationed at the presidio were extracting marrow from these bones by breaking them (Cheever 1983). This is possible as it has been frequently noted in historical documents that presidio agrarian practices were largely a failure, and relied heavily on missions for food supplies. Increased stress may have resulted in the utilization of every part of the animal, including the marrow. Other explanations of fragmented rib bones may be explained by the burning of the bones for sanitary purposes, grease extraction for butter, production of lard to tan cattle hides, or poor preservation at the site.

Also of interest is zooarchaeological work conducted by Wessel at the Ontiveros Adobe (1980). This faunal analysis was conducted on two pit features located near the adobe walls, as well as from a feature located within the interior rooms of the adobe. This study was separate from that of Sherri Gust, who conducted work on a *mantanza* site located further away from the actual adobe complex at Ontiveros (Gust 1982). Wessel noted the presence of rib and vertebrate elements in higher proportion to other recovered elements (Wessel 1980). He concluded that the entire loin of cattle was removed during butchery and treated as a single meat yielding unit. Today, the loin is used to produce steaks, such as the T-bone, porterhouse, and sirloin cuts, but during the Mission period the loin was probably cut into strips and dried or jerked. Bones at the Ontiveros Adobe showed signs of being shattered and splintered to gain access to marrow. Wessel suggests the marrow was not accessed for consumption, but for the fat and lard it could provide to increase the amount of tallow rendered from the carcasses (Wessel 1980). The Ontiveros Adobe site demonstrates that much of the cow carcass was utilized including marrow extraction and meat for consumption.

Looking to the theory of the "Schlepp Effect" in zooarchaeology, surprising information about the transport of ribs to the mission emerges. O'Connell and Hawkes (1988) study of the Hadza's butchering and bone transport practices bring up some interesting implications. O'Connell and Hawkes observed that at Hadza butchery sites bones that were stripped of their edible tissue were discarded during the butchery process (O'Connell and Hawkes 1988). They note that some elements like long bones can be completely stripped of flesh in a very short time, while others, like vertebrae (and ribs) require more effort. As a result of this study, it is postulated that once cattle were stripped of their hides for leather and fat for tallow, they likely were stripped of their meat attachments at the limbs. Thus, limb bones would have been discarded at the butchery location. This meat may have been hung for drying in the field or transported back to the mission, sans the bones, for processing. Documentary and historical evidence indicates the predominance of drying or "jerking" meat at the missions (Gust 1982; Webb

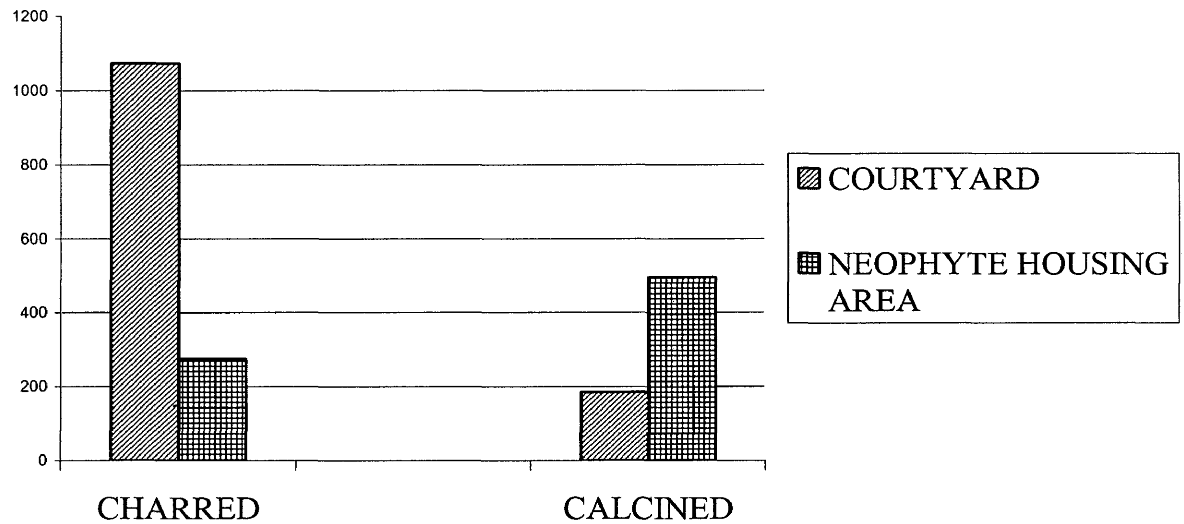
1982). Ribs cuts with vertebrate attachments, notably the most difficult to process in a short time, were then transported back to the mission for consumption, where the bones would have either been stripped or used in soups and stews. Therefore, rib meat may actually have not been the consumed cut of meat, but is the most represented in the faunal assemblages due to methods of butchery practiced by the Spanish.

5.2 Distribution of Burning

A second topic of discussion that cannot be ignored at the mission is the prevalence of burnt bone in both of the assemblages. The following provides explanation for the high frequency of burned faunal remains at the mission. It also indicates that the burned bone at the Courtyard area may represent a later temporal element in the faunal assemblage related to the post-secularization occupation of the mission.

The general cooking techniques of the Mission Period, include boiling meat on and off the bone, jerking and drying meat, and occasionally roasting meat. Only meat left on the bone during cooking would expose it to the effects of fire, and only roasting, a technique not in general practice in Spanish culinary recipes, would expose the bone to fire. Also, cooking activities do not cause bones to become carbonized and calcined, which are caused from exposure to high and long durations of heat. Therefore, it is highly unlikely that the bones in the assemblages were subject to fire through the processes of cooking. This is interesting, as it has previously been concluded that the majority of bones from the assemblages represent the remains of consumption activities. It means the bones may have been subsequently subjected to the effects of heat and fire after consumption.

Table 8. Distribution of Burning on Total Faunal Remains (Comparative)



The majority of the calcined bone remains are concentrated in the Neophyte Housing Area assemblage (See Table 8. Distribution of Burning on Total Faunal Remains). On the other hand, the majority of the charred bone remains are concentrated in the Courtyard Aréa assemblage (See Table 8. Distribution of Burning on Total Faunal Remains). What does this say about the different activities taking place at the mission, and the way the bones were utilized? Both areas of the mission looked at for the current faunal analysis were likely areas of occupation for converted Native Americans. The operating assumption of looking at the function of the areas analyzed, is that kitchen waste, for the most part, tends to be discarded near the cooking area and that this can seen archaeologically. The Courtyard Area was a center of activity for the mission quandrangle and the concentration of rooms along the southwest convento most likely housed unmarried and widowed female neophytes and possibly storage of provisions and supplies (Mendoza 1997). The tower area of the Courtyard Area was utilized as a guard shack by the mission soldiers and served to protect missionaries and Native American converts from attack by outlying Native American raids (Mendoza 1997).

The Neophyte Housing Area was a set of small room blocks designed to house converted Native American families. These apartments housed only a small fraction of the mission population and so it was therefore a select group, probably comprised of long-term mission residents, skilled craftspersons, and the mission *alcalades* (trusted native converts who were placed in positions of authority by mission priests) whom inhabited the Neophyte Housing (Allen 1998; Kimbro 1988; Voss: 2000). Farris, calculated an average of five people per household in the 17 by 14 foot, one room apartments and determined that the entire Neophyte Housing complex at the mission would account for only 270 people, or 20 percent of the entire mission population of the time (Farris 1991). He believes that the Neophyte Housing was not intended for newly arriving Native Americans, but rather those that were moving toward integration in the Christian community after as much as 25 years at the mission (Farris 1991).

It is important to first look at the use of the function of the rooms in historical context. Archaeological data from the various Alta California missions, including Mission San Juan Bautista suggests that within each apartment, a central stone hearth was set into the floor. Many rooms also suggest evidence of secondary fire pits. The arrangement of these secondary pits does not conform to a set pattern (Allen 1998) and suggest innovations in adapting to light and heat requirements of a rectangular adobe apartment. Artifactual evidence indicates that many activities were conducted within the adobe rooms, including food processing and consumption, stone tool manufacturing, shell bead production, and gambling (Allen 1998; Farris 1991). While cooking, eating and craft production also certainly occurred outdoors, the indoor location of some subsistence and craft activities is of interest to the current study.

Two of three rooms from the Neophyte Housing Area of Mission San Juan Bautista contained definitive evidence of indoor hearths. The Neophyte Housing Area rooms also contained two iron kettles (in two separate rooms) similar to those found at the Santa Cruz Mission Adobe (Farris 1991), two iron blades, two pestles, one mano, and three metate fragments. All of these artifacts are associated with the preparation of food. Interestingly, one of the iron kettles had been incorporated into the foundation of the room and underlay the adobe foundation. This feature was likely part of the original construction of the room block.

The Courtyard Area of the mission quadrangle also contains evidence of indoor hearths. It is likely that food preparation and other activities were taking place within the room blocks. It was the Southeast Convento wing that contained the main mission kitchen. The kitchen is still standing today. It is likely that food was prepared inside and outside this kitchen, and there is historical evidence that suggests food for priests and guests was prepared inside, while food for the neophytes was prepared in the courtyard (Webb 1982). Although it is likely that large meals for the entire mission were prepared in the kitchen, it is not unreasonable to assume that individual meals were prepared within the room blocks of the Southwest Convento too. Faunal remains from the Courtyard Area likely represent the smaller day-to-day meal preparations taking place in the individual room blocks of the Southwest Convento.

Further analysis of the distribution of the burnt bone in the two assemblages may shed some light on possible reasons for the high degree of burnt bone in the assemblage.

In the Courtyard Area, over 75% of the charred bone is concentrated in the tower area. Mendoza has postulated that a devastating fire took down the Southwest Convento and tower (Mendoza 1997). In every unit excavated Mendoza found a five to ten centimeter thick layer of ash and charcoal underlying the tile roof fall layer. In several units an ash layer was noted in the sidewall exposure.

From 1809 to 1833 Fray Felipe Arroyo de La Cuesta oversaw the operations at Mission San Juan Bautista. In 1833, de La Cuesta was replaced by Fray Jose Antonio Anzar. Anzar grew bored with his assignment and took up almost permanent residence with his brother in the town of Watsonville, a half day's journey away. The year following Anzar's arrival, the California missions were secularized. It is hypothesized that due to changes brought about by secularization and the absence of Anzar, the mission fell to ruin. This is when the Southwest Convento and tower are believed to have burned and collapsed. Laying virtually untouched for as much as 10 to 20 years, it has been reported that American squatters eventually set-up camps in the remains of the mission (Mendoza 1997). Gotshalck-Stine (2003) analyzed ceramic materials from the tower, and concluded that virtually of the ceramics present date to the second quarter of the 19th century, indicating a post-mission occupation of the area. She concluded that the collapsed tower area was being used as a trash receptacle by American Period squatters inhabiting the Southwest Convento rooms. The majority of the saw cut bones identified in the Courtyard Area assemblage are associated with the tower, which further supports that an American Period component in this area.

In comparison to recent work conducted by Smith-Lintner (2004) at the Peralta Adobe Assemblage, the majority of bone recovered from the Courtyard Area appears to have been burned without the flesh. Experimental studies have addressed the different characteristics of dry bone versus fleshed bone cremations. Burning of dry bone tends to produce shallow surficial crack and straight-sided longitudinal fractures (Binford 1972; Buikstra and Swegle 1989; McKinley 1989; Pearce and Luff 1994; Thurman and Willmore 1980-81). Smith-Lintner observed that most the bones from the Peralta Adobe appeared to be fully-fleshed cremations, associated with a one-time slaughter of cattle for removal of hides. She speculates that the carcasses were burned as a sanitary measure common at Spanish colonial sites through out California (Smith-Lintner 2004). Alternatively, the bone from the Courtyard Area of Mission San Juan Bautista appears to have been accumulated over a period of time and fleshed before deposition and subsequent burning.

Artifacts found associated with the tower are problematic in that they span a broad time period and date from the early 1830's (when the mission was still inhabited by priest and neophytes to the early 19th century (when the town of San Juan Bautista has developed around the mission and included settlers from all over the world). Some of the most diagnostic artifacts include: Native American shell beads, two pre-1830's manufacture porcelain plates, and two 1860's American silver coins.

It can be concluded that the burned bone primarily associated with the tower area of the Courtyard is the direct result of activities taking place at Mission San Juan Bautista either around or after secularization and abandonment of the mission. The most plausible explanation is that the majority of bones represent mission era activities in the courtyard and were subject to heat alterations upon contact with a fire that destroyed the Southwest Convento and tower causing the roof to collapse and capping the archaeological deposit underneath. However it also possible that the bones are the result of refuse that was accumulated from consumption activities of American Period squatters, deposited in the collapsed room block, and burned for sanitary measures. The deposit in this area does appear to be disturbed with the mixing of artifacts from two distinct eras in California history. Further analysis of artifacts from the feature and additional studies in the mission courtyard may explain how this area was utilized.

The bone from the Neophyte Housing Area of the mission is primarily calcined, meaning it has been exposed to extremely high temperatures for extended periods of time. Like charring, calcined bone is not typical of cooked bone, and is likely caused by other factors. The calcined bone from the Neophyte Housing Area is primarily associated with the hearth features of Rooms B-11 and B-12. The calcined bone is heavily fragmented and assigned to the indeterminate mammal or large mammal groupings. The most likely conclusion for the causation of calcinations on the Neophyte Housing bone was its direct association with the hearths located within the rooms. Like burned bone from the Courtyard Area, the Neophyte Housing Area burned bone does not show warping and splitting associated with fully-fleshed bone. Instead, it appears the bone was deposited, un-fleshed in the hearths post-consumption. The bone is likely the result of deposition into the hearth as part of a sanitary or house cleaning measure. There is also some evidence that bone was used as fuel and may have been used to heat the room (Smith-Lintner 2004). Unlike the bones from the Courtyard Area that was exposed to a single periodic burning episode, the bones from the Neophyte Housing Area were exposed to high heat for extended periods of time, resulting in the calcinations. Calcined and burned bone from this area is restricted for the most part to the hearth features. In sum, the burned bone from the Neophyte Housing Area paints a much clearer picture than that of the Courtyard Area, as it is closely associated with known hearth features where it has been repeatedly exposed to high levels of heat that would cause the amount of calcinations that were observed.

5.3 Mission as a Commercial Institution

It has been postulated that the faunal remains analyzed from Mission San Juan Bautista represent two distinct time periods, mission occupation and post-secularization, however, it can be further hypothesized that the majority of the remains represent a very distinct period when the mission began to become intensively involved in commercial trading and shifted its primary focus and functioning to cattle for the production of hides and tallow. The faunal remains analyzed have a broader significance, when viewed in terms of the economic changes taking place in Alta California.

The economic development and change of the mission system can be viewed as a complex network of causes and effects through time. At the outset of Spanish settlement in Alta California, missions were not considered economic entities, rather they were viewed as acculturation institutions supported by the church and government. The missions were founded to convert, protect, and civilize the California Indians, aiming to produce loyal Spanish subjects who would populate the California frontier (Engelhardt 1930). But the mission system began to change overtime as did its relationships with the Native American, civilian, and military populations. The mission system of the 1780s was completely different than that of the 1830s and this was due to a variety of factors.

Beginning in the later 1790s and into the 1800s, supply ships from Mexico became less frequent. Not only missions, but also military and civilian populations could not rely on the resources being brought on these ships. Because the missions had free reign to two key economic assets, 1) unlimited land access and 2) an unpaid labor base (Native Americans), they were the most successful of the three established institutions. Military and civilian populations began to rely increasingly on the surpluses produced by the missions. In fact, many of the later established missions, including Mission San Juan Bautista founded in 1797, were established to not only convert Native Americans, but to also provide support to adjoining presidio and pueblo populations. This may provide some explanation for the success of Mission San Juan Bautista from its founding, as it was always intended to produce surpluses. Production of surpluses became an integral part of the mission's success, as surpluses could not be entirely consumed within the mission. Missions came to dominate all aspects of the frontier economy, something they were never intended to do.

Emphasis began to shift in the early 1800s at the missions from acculturating Native Americans to producing animals, agriculture, and products that could be utilized not just by the mission, but also by the entire population of Alta California. This is emphasized on the mission records by a decline in the rate of conversion and recording of baptisms and high death rate of the mission population (Hornbeck 1989) (See Table 11. Results of Missionaries Activities at Mission San Juan Bautista in the Spiritual Order from 1797 to 1832). Less and less Native Americans were coming to the mission, even as the population was declining. The only consistent population at the mission was based on internal births rather than external converts. There was also an increasing demand from the civilian and military populations for agricultural and manufactured goods, meaning the missions had to devote increasing amounts of the labor force to producing for the outside demand. Native Americans became more skilled at their jobs. Artisans were sent from Mexico in the 1790s to teach trades such as metal working, weaving, hide and tallow procurement, etc. to the Native Americans. As missions began to specialize in types of products produced, the need for a large labor force declined.

The biggest change was brought to the missions in 1823, when Mexican rule began and trade was legalized. It was at this time that the mission completed the transition from social to commercial institution. English and American ships established trading posts along the Atlantic seaboard and the demand for hides and tallow escalated. The production of surpluses at the missions shifted from various products to money making hides and tallow. Missions began to concentrate solely on domestic livestock, which required less labor inputs than the planting of produce such as wheat and beans. At Mission San Juan Bautista this can be seen in the decrease of wheat, barley, corn, beans, and peas planted and harvested (See Table 10. Material Results at Mission San Juan Bautista for Agricultural Products and Livestock 1797-1832). On the other hand, we see a steady increase in cattle and sheep at the mission starting in 1806 (See Table 10. Material Results at Mission San Juan Bautista for Agricultural Products and Livestock 1797-1832). Herds seem to increase at an average of 500 head per year. Interestingly, in 1822 both cattle and sheep numbers seem to take a large decline, with sheep decreasing from 10,000 in number to 9,000 and cattle decreasing from 10,200 to 8,000 in number. Can this large decrease be explained by the concurrence of legal trading taking place that same year? Perhaps a large number of livestock were used for trade or to fulfill the new contracts that were established with missions and trading firms throughout Alta California. Physical changes that may be observed at the missions include lack of construction of new facilities at this time, as well as shifting uses of existing facilities to support the hide and tallow industry. At missions like San Antonio this is evidenced by the fact that in the 1820s the tile kiln no longer in demand for heavy construction, began to be used to burn bone for production of fine lime used in soaking cattle hides (Costello 1985; Lagenwalter and McKee 1985). In a letter written by Father de la Cuesta on August 10, 1826, he seems very perplexed by the changes at Mission San Juan Bautista,

> "There is hardly anything of the Religious in me, and I scarcely know what to do in these troubled times. I made vows of a Friar Minor; instead, I must manage temporalities, sow grain, raise sheep, horses and cows. I must preach, baptize, bury the dead, visit the sick, direct the carts, haul stones, lime, etc. These are things incompatible, thorny, bitter, hard, unbearable. They rob me of time, tranquility, and health of both the body and soul. I desire with lively anxiety to devote myself to my sacred ministry and serve the lord." (Clough 1996).

Were the missionaries perplexed by their new roles? It may be that some became distracted by the surplus of goods and the power related to controlling this surplus. The missions were becoming extremely wealthy by supplying not only foreign trade, but continuing to supply the military and civilians. The Alta California missions became a business institution relying on the free labor of the Native Americans as its economic base.

Some researchers suggest that the trade conducted by the mission was not for goods to be consumed by the Native Americans, but was for luxury supplies for the missionaries and for capital accumulation (Serra 1995). Some have suggested the missionaries horded gold, others suggest that they later sold acquisitions to the pueblo and presidio residents for a profit (Serra 1995). Costello (1989) has suggested that English ceramics, French wine, champagne, English gin, and whiskey were the main items exchanged to the mission. Either way, the missions came to serve as the sole financial establishment of the Alta California during the Mexican period, lending money to governors, officers and civilians. All of this wealth certainly caused jealousy.

In the 1830s the military and civilian populations began petitioning the Mexican government for mission lands. It was the hopes of these peoples to participate in the very lucrative hide and tallow industry of the time. The change was brought about in 1834 with the secularization of the missions. Although the emphasis on cattle for hides and tallow remained of utmost importance, it shifted from the grips of the missions to the civilians at individually owned ranchos.

The faunal assemblages analyzed in the current study suggest that Mission San Juan Bautista was a key player and participant in the hide and tallow industry of the time. In fact, it would not be unreasonable to assume that the majority of the faunal remains at Mission San Juan Bautista represent the time period from 1823 ca. to 1834, and were associated in some way with the production of surpluses for trade. This can be assumed from the majority of the assemblage being comprised of cattle bones, but also may be attributed to the lack of other domestic animals in the assemblage such as sheep and pigs. Associated artifacts of these areas also are telling of the trade industry including the abundance of foreign produced ceramics in both areas, bottle glass from foreign wine and liquor bottles, as well as the tools likely used in the production of hides and tallow such as iron knives, lithic tools that may have been used to scrape and cut hides, and modified glass and ceramic tools that could have been used to work hides. The associated artifact assemblages at both areas of the mission suggest that material life in these areas was simple, but representative of trade activities.

Overall, the interpretation of Mission San Juan Bautista as a business or commercial operation stand in sharp contrast and offsets the predominate views of missions as conversion institutions meant to "educate" and "civilize" Native American populations. The faunal materials recovered from the mission may suggest the extant of exploitation of free Native American labor at the mission. Converts provided the economic base to make the missions as successful as they became. It can be seen from the bones at Mission San Juan Bautista that domestic stock raising was a successful endeavor. This paper demonstrates how zooarchaeology can have much father reaching effects for the implications of archaeological and anthropological study than just presenting a list of the types of animals found at a site. The faunal remains at Mission San Juan Bautista have allowed speculation of the importance of domestic animals to the mission economy and overall functioning.

6.0 CONCLUSION

This thesis analyzed faunal materials from two separate areas of Mission San Juan Bautista. The area investigated included the Neophyte Housing Area and the Courtyard Area of the mission. This thesis is important, as there have previously been few opportunities at California mission to conduct comparative analyses. Additionally, this thesis is important because it takes an in-depth and detailed approach to zooarchaeological analysis by looking at processing techniques of animals, modifications on bones, and spatial distribution. It provides evidence that is lacking in historical documents, account records, and inventories of the time. Most importantly, it gets at how Native American diet and subsistence was changed by the process of missionization.

This thesis and faunal analysis attempts to make a statement about what animals were utilized at the mission for food and other products. It looks for indications of certain butchery patterns, as well as determines the extent to which indigenous animal species played a role as a food source. What was discovered was that domesticated animals, especially cattle were relied upon heavily for consumption. Cattle were also critical to the economic functioning of the mission for trade of hides and tallow. The faunal analysis revealed that rib elements were apparently the most utilized and butchered element present in the assemblages. It was concluded that the rib elements are one of the elements not discarded at the butcher site because they could not be easily stripped of their meat. Ribs with attached vertebrae were transported as a larger unit back to the mission where they were further processed or incorporated into soup and stew-based meals.

The faunal remains from Mission San Juan Bautista did not contain large amounts of sheep remains, even though documentary evidence suggests their presence in greater or equal numbers to cattle. This thesis concluded that the lack of sheep is directly related to the processing of the sheep for wool, not food, as well as the likelihood that the sheep were kept in pastures away from the mission. Indirectly, the importance of domestic animals at Mission San Juan Bautista was inferred from the lack of wild animal remains in the faunal assemblages. At both the Courtyard Area and the Neophyte Housing Area wild animal remains make up less than one percent of the total assemblage. Wild animals may have been used to supplement the diet.

The study of two distinct areas of Mission San Juan Bautista has allowed for intra-site comparison at the mission, something not attempted at many Alta California mission sites previously. Although distinct differences of the two sites were expected, what was found was that food selection and animal utilization at both areas was strikingly similar. This may indicate that the Native Americans residing in the Neophyte Housing Area, as previously suggested by Farris (1991) were the more acculturated groups who had lived at the mission over a period of generations. When other recovered artifacts are considered from both areas, we do see glimpses of traditional technology of Native Americans, such as lithic tools and shell beads, but there is also progression or adaptation to new material types, as is evidenced by modified glass and ceramic pieces at the Neophyte Housing Area. Intra-site comparison at the mission emphasizes how domestic animals use predominates missionary and Native American realms of the mission and further emphasizes their importance.

In addition to the processes and uses of domestic animals at Mission San Juan Bautista indicated, another interesting point is made from the faunal remains. The distribution of burning at the Neophyte Housing Area, but more so at the Courtyard Area may indicate two distinct occupation periods at the site. The high amount of burning on mammal remains concentrated in the tower area of the Courtyard may be representative of the burning and collapse of the tower and the occupation of the area by squatters after the secularization of the mission. This provides an interesting glimpse into a period not often studied by mission scholars. It also indicates the continuing importance of domestic cattle to the Alta California economy during this time.

The overall dependence on domestic animals at Mission San Juan Bautista led this thesis into a discussion of the importance of domestic animals to the mission economy as a whole. The success of the domestic animal has led to the success of the mission and its ability to become self-sufficient, self-supporting, and eventually supportive of the entire Alta California frontier. Discussions of the domesticated animal at Mission San Juan Bautista also allowed for the greater view of how introduced species affected the California landscape as a whole, with the influence of the domesticated animal even permeating aboriginal populations outside of the missions.

It is important to note that acculturation theories of the past do not work in the analysis of faunal remains for this thesis. Acculturation is seen as an asymmetrical process and the result is usually absorption of one culture into the other. The theories of acculturation rationalize that the process is carried out by one dominant society over a weaker society. It is brought about by direct contact between the individuals of these societies. However, the data generated from this thesis raises new questions about adaptation, exchange, and interaction between Native Americans and the Spanish in California. There is a negotiation of new society, in this case brought about by the introduction of domestic animals. This faunal analysis demonstrates that while it is undeniable that the domesticated animals were important to the mission economy, how Native Americans chose to interact with them both inside and outside the mission was negotiable. Historical, documentary, and archaeological evidence on non-Christian Native Americans societies living outside the mission, as well as archaeological evidence of the adaptation of Spanish materials goods and retention of traditional practices by Native Americans living at the mission, attest to a society not as black and white as acculturation theory suggests. This thesis hopes to raise further questions about the role of domestic animals at the Alta California missions, as well as related presidio, pueblo, rancho, and even protohistoric Native American sites.

TABLE 9.
PROJECTED STRATIGRAPHIC LAYERS/EVENTS AT TAIX SITE PROJECT*

LEVEL NUMBER	DESCRIPTION OF LEVEL
1	Current surface with modern detritus
2a	Adobe melt from disintegrating walls and plow zone
2b	Adobe blocks still visible over foundations (feature)
3	Roof tile layer from demolition/stripping of building
4a	Occupation layer (inside building) above adobe or ladrillo flooring
4b	Occupation layer (outside building)
5	Sub floor occupation level (within building)
6a	Intrusive foundation trench
6b	Foundation fill mounded up inside
6c	Layer of foundation debris on outside of building
7	Fire pits within rooms (feature)
8	Borrow pits for clay with refuse thrown in (feature)
9	Pre-construction ground surface

* Taken from Glenn Farris, Archaeological Investigations of Neophyte Housing Area, Department of Parks and Recreation, 1991.

Table 10.

Material Results at Mission San Juan Bautista for Agricultural Products and Livestock (1797-1832)

Taken From: Charles W. Clough, *San Juan Bautista: The Town, The Mission, and the Park,* Fresno, California: World Dancer Press, 1996.

MATERIAL RESULTS AT MISSION SAN JUAN BAUTISTA
AGRICULTURE PRODUCTS.—1797 TO 1832.

Year	Wheat		Barley		Corn		Beans		Peas		Total Fanegas		Bu.
	Plt.	Hrv.	Plt.	Hrv.	Plt.	Hrv.	Plt.	Hrv.	Plt.	Hrv.	Plt.	Hrv.	Hrv.
1797	...	...	...	...	...	...	...	...	...	...	...	...	...
1798	32	157	4	91	9	5	1	1	1	1	47	285	475
1799	55	241	4	3	1	140	3	20	1	2	64	406	676
1800	64	1010	5	83	4	681	3	21	3	20	79	1815	3025
1801	100	867	6	197	3	150	2	3	1	11	109	1248	2080
1802	52	100	6	100	5	500	3	30	2	3	68	733	1222
1803	118	1200	1	18	3	800	3	30	1	10	126	2058	3430
1804	121	2000	3	41	3	400	3	23	3	25	133	2489	4148
1805	...	...	...	...	...	...	...	...	...	...	...	...	...
1806	150	2420	...	...	3	300	3	30	5	55	161	2805	4675
1807	200	2300	6	200	2	30	1	9	1	5	210	2544	4240
1808	200	2200	6	300	3	100	4	11	4	78	217	2689	4482
1809	200	1309	6	70	6	7	1	1	6	11	219	1398	2330
1810	350	3972	15	254	5	400	3	70	7	270	380	4966	6277
1811	124	857	26	125	12	1000	8	130	9	55	189	2167	3612
1812	118	730	6	72	5	803	5	66	9	84	143	1755	2925
1813	72	1827	6	60	4	300	3	36	8	188	93	2411	4018
1814	29	400	2	30	4	170	2	14	5	126	42	740	1233
1815	40	421	...	...	2	...	2	2	13	155	57	578	883
1816	60	1600	1	14	2	200	2	4	13	24	78	1842	3070
1817	59	1500	...	...	2	337	2	142	3	105	66	2084	3473
1818	77	1872	4	41	3	500	5	144	7	192	96	2749	4582
1819	70	2516	3	116	3	700	4	4	6	93	86	3429	5715
1820	90	2954	7	368	3	884	2	134	2	112	104	4452	7420
1821	58	2957	3	92	3	700	2	103	2	84	68	3936	6560
1822	114	686	7	119	2	70	2	...	2	...	127	875	1463
1823	90	1474	21	704	9	300	3	...	9	...	132	2478	4130
1824	...	...	...	...	...	...	...	...	...	...	216	3360	5600
1825	...	...	...	...	...	...	...	...	...	...	117	3599	5998
1826	142	3095	5	420	3	100	2	14	5	76	157	3705	6175
1827	106	932	12	200	3	80	2	10	8	19	131	1241	2068
1828	70	439	14	100	3	90	2	9	10	4	99	642	1070
1829	50	...	29	...	3	50	4	6	3	7	89	63	105
1830	...	...	...	...	...	...	...	...	...	...	...	...	...
1831	84	840	23	255	4	170	3	40	8	6	122	1315	2192
1832	...	...	...	...	...	...	...	...	...	...	114	1396	2327

MATERIAL RESULTS AT MISSION SAN JUAN BAUTISTA
LIVE STOCK.—1797 TO 1832.

Year	Cattle	Sheep	Goats	Pigs	Mules	Horses	Total
1797	115	140	...	4	6	21	236
1798	172	499	...	8	5	69	753
1799	253	1108	...	14	5	237	1617
1800	379	2035	...	45	3	329	2791
1801	441	2423	...	50	4	367	3285
1802	618	3800	...	56	6	454	4934
1803	1036	4660	...	22	8	540	6306
1804	1530	5040	...	0	27	1123	7720
1805	...	...	...	...	...	...	...
1806	3100	7200	...	50	35	1600	11985
1807	3700	10000	...	50	30	600	14380
1808	4000	10000	...	48	32	619	14699
1809	5200	7199	...	58	23	457	12937
1810	5600	9630	...	70	37	586	15943
1811	6000	11500	...	81	34	493	18108
1812	6701	11805	...	91	38	593	19228
1813	7500	12000	...	90	34	530	20154
1814	7400	11200	...	66	33	519	19218
1815	8000	13400	...	50	34	588	22072
1816	10000	13000	...	54	33	702	23789
1817	10500	12000	...	33	33	611	23181
1818	10800	12000	...	18	30	537	23485
1819	10000	10100	...	36	22	638	20796
1820	11000	9500	...	30	24	675	21229
1821	11000	11500	...	60	26	794	23380
1822	10200	10000	...	70	30	803	21103
1823	8000	9000	...	50	36	820	17906
1824	8320	9300	...	40	42	808	17510
1825	8224	9367	...	45	44	869	18589
1826	6206	9526	...	46	53	872	16703
1827	6400	10500	...	50	37	682	17669
1828	6000	11871	...	51	18	737	18677
1829	5899	7503	...	40	6	177	13625
1830	...	...	...	...	...	...	...
1831	7070	7017	...	17	6	397	14507
1832	6000	6004	...	20	12	296	12332

Table 11.

Results of Missionary Activities at Mission San Juan Bautista (1797-1832)

Taken From: Charles W. Clough, *San Juan Bautista: The Town, The Mission, and The Park,* Fresno, California: World Dancer Press, 1996.

RESULTS OF MISSIONARY ACTIVITIES AT MISSION SAN JUAN BAUTISTA IN THE SPIRITUAL ORDER FROM 1797 TO 1832

YEAR	BAPTISMS		MARRIAGES		DEATHS		NEOPHYTES		EXIST.	CONFESSIONS	COMMUNIONS	VIATICUM	CONFIRMA-TIONS
	Wh.	Ind.	Wh.	Ind.	Wh.	Ind.	M.	F.					
1797	..	87	..	12	..	2	55	30	85	..	..	..	..
1798	1	269	..	58	1	18	176	120	296	..	..	..	..
1799	..	347	..	76	..	51	202	146	347	..	..	..	..
1800	2	641	..	109	..	66	341	240	586	..	..	..	..
1801	..	813	..	148	..	99	428	295	723	..	..	..	..
1802	2	1079	..	206	..	184	507	403	910	..	..	..	..
1803	..	1239	..	258	..	287	522	454	976	..	..	..	..
1804	2	1430	..	329	1	393	550	523	1073	..	..	..	..
1805	..	1647	..	368	..	503	572	540	1112	..	..	..	..
1806	3	1701	1	392	1	703	500	568	1068	..	..	..	..
1807	..	1829	..	418	..	798	..	..	1072	..	..	..	..
1808	3	1856	..	448	2	892	..	470	510	980	150	..	..
1809	..	1886	..	459	..	971	..	..	..	902	12	..	..
1810	6	1915	..	468	2	1055	368	332	700	12	..	..	..
1811	1	1947	..	478	1	1119	354	312	666	37	11	..	..
1812	3	1981	1	494	1	1179	345	293	638	78	12	..	..
1813	1	2028	2	517	4	1231	349	284	633	194	204	..	..
1814	1	2051	1	526	2	1280	330	277	607	189	8		
1815	1	2091	..	537	3	1344	330	250	580	195	23	1	..
1816	7	2147	..	555	2	1400	328	247	575	220	11	5	..
1817	4	2217	2	572	..	1435	346	262	608	399	79	2	..
1818	9	2255	2	591	3	1490	330	252	582	342	48	1	..
1819	6	2407	..	600	2	1561	362	298	660	291	36	2	..
1820	4	2625	1	659	1	1598	442	401	843	280	53	5	..
1821	12	2996	1	747	4	1708	563	535	1098	200	43	9	..
1822	8	3270	3	823	3	1853	621	601	1222	188	51	6	..
1823	10	3396	2	858	1	1942	641	607	1248	206	57	6	..
1824	4	3481	..	881	3	2038	631	590	1221	..	..	..	..
1825	9	3538	..	900	5	2163	618	548	1166	390	30	5	..
1826	7	3626	3	921	4	2257	611	535	1146	296	8	8	..
1827	..	3692	..	935	..	2343	..	..	1108	290	10	2	..
1828	..	378.	.	949	..	2577	..	..	986	200	11	17	..
1829	13	3838	1	962	8	2644	552	417	969	..	..	..	..
1830	..	3896	..	974	..	2697	557	407	964	4	22	..	..
1831	17	3847	3	993	5	2781	531	397	928	210	72	6	..
1832	16	4017	3	1003	..	2854	520	396	916	..	..	..	..

Figure 1.

Map of the Missions of California

Taken From: Charles W. Clough, *San Juan Bautista: The Town, The Mission, and the Park,* Fresno, California: World Dancer Press, 1996.


THE OLD FRANCISCAN MISSIONS IN CALIFORNIA.
OREGON
PACIFIC OCEAN
MEXICO
SACRAMENTO
M. SAN FRANCISCO SOLANO
M. SAN RAFAEL
M. SAN FRANCISCO OR DOLORES
M. SAN JOSE
M. SANTA CLARA
M. SANTA CRUZ
M. SAN JUAN BAUTISTA
M. SAN CARLOS
M. SOLEDAD
M. SAN ANTONIO DE PADUA
M. SAN MIGUEL
M. SAN LUIS OBISPO
M. LA PURISIMA CONCEPCION
M. SANTA INEZ
M. SANTA BARBARA
M. SAN BUENAVENTURA
M. SAN FERNANDO
M. SAN GABRIEL
Los Angeles
M. SAN JUAN CAPISTRANO
M. IMMACULATA CONCEPTION
M. SAN LUIS REY
M. SAN DIEGO
San Diego
M. SAN PEDRO Y SAN PABLO
Lake Tahoe
Mono Lake
Owens Lake
Death Valley
Tulare Lake
Yosemite Valley
Honey Lake
Clear L.
Santa Barbara Channel
Colorado River
Scale of Miles.
0 50 100 150
Rand, McNally & Co.

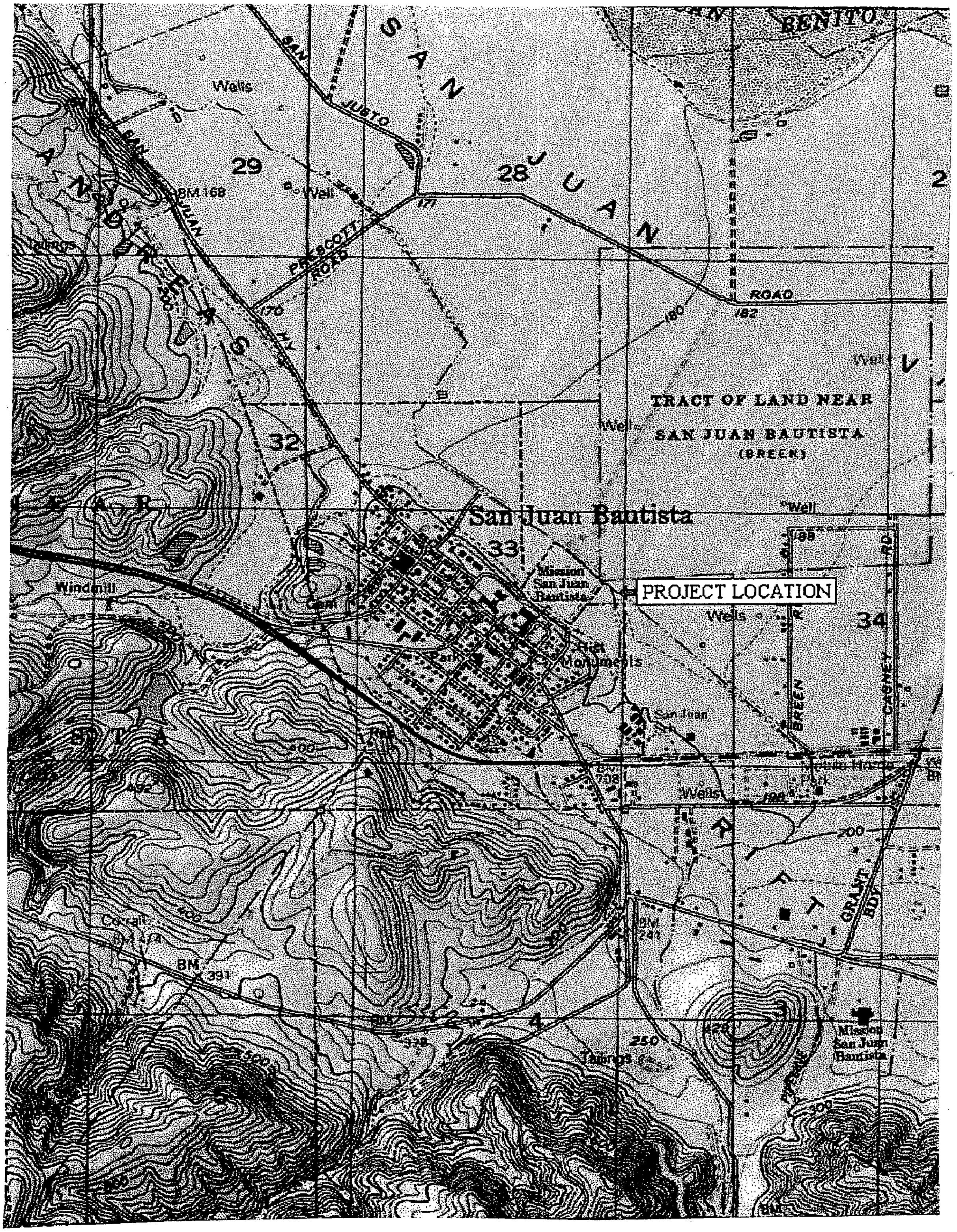
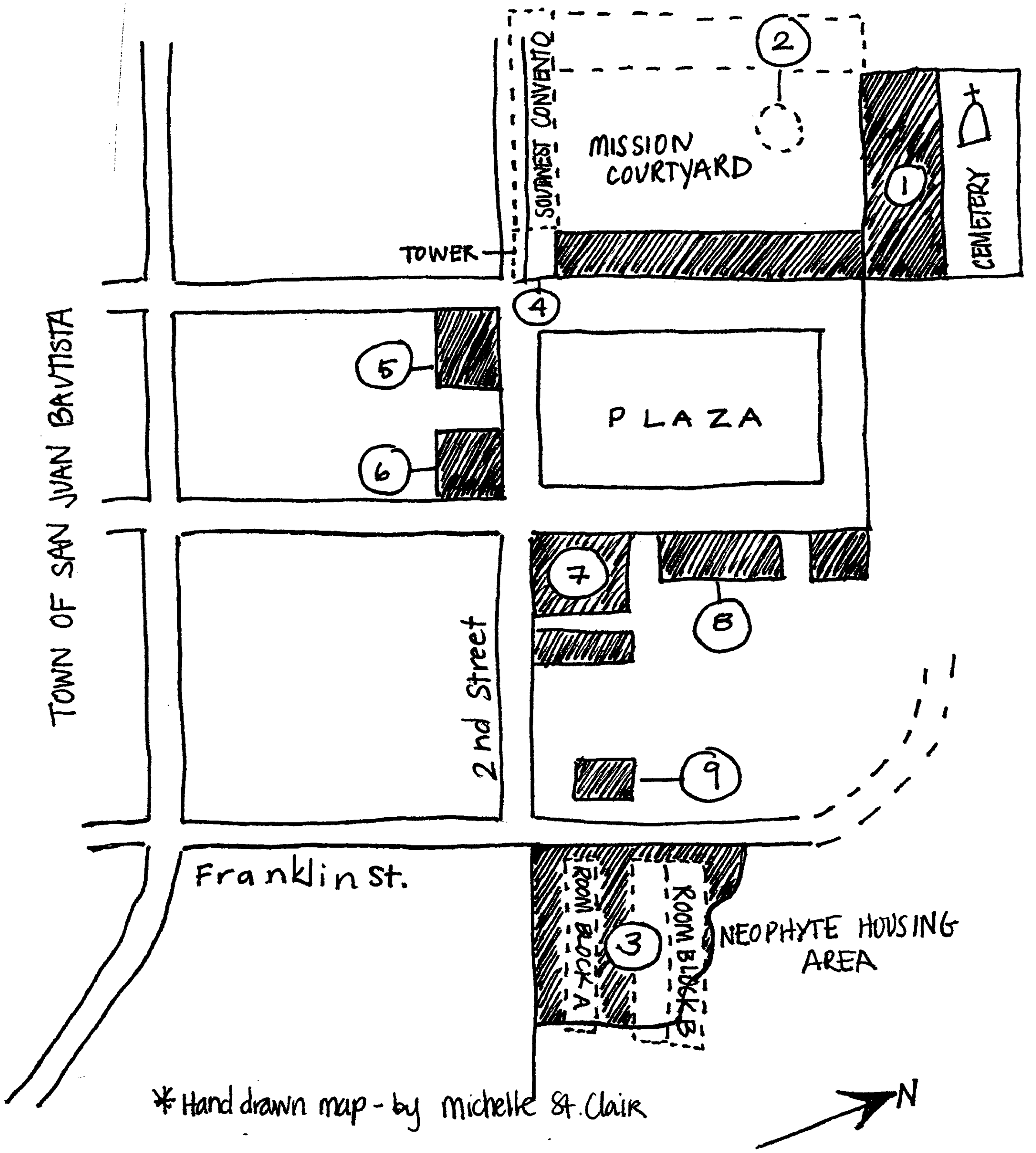


Figure 2. Project Area Map
U.S.G.S. 7.5' Topographic Map, San Juan Bautista Quadrangle

Figure 3.

Map of Mission San Juan Bautista Complex



Key:
1) Mission SJB/Church
2) Well
3) Neophyte Housing Area/Taix Lot
4) Tower
5) Plaza Hotel
6) Castro House
7) Stable
8) Zanetta House
9) State Park Head Quarters

APPENDIX A
COURTYARD AREA
Faunal Spreadsheets

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
N10W42								
001	2336.01	Odocoileus hemionus	L	Main metatarsal	F	Adult	1	28.2
002	2303.01	Ind Mammal	Ind	Ind	Ind	Ind	45	8.8
003	2303.02	Bos taurus	Ind	Mandible	Ind	Adult	1	0.6
004	2303.03	Bos taurus	Ind	Mandible	Ind	Adult	1	0.3
005	2303.04	Ind Mammal	Ind	Mandible	Ind	Adult	1	1.4
006	2303.05	Ind Mammal	Ind	Mandible	Ind	Adult	1	0.6
007	2303.06	Ind Mammal	Ind	Mandible	Ind	Adult	1	0.2
008	2303.07	Ind Mammal	Ind	Cranium	Ind	Adult	1	1.2
009	2303.08	Bos taurus	Axial	Cervical Vert	Unf	Imm	1	4.7
010	2303.09	Gallus gallus	R	Furculum	Fl	Adult	1	0.4
011	00272.01	Ind Mammal	Ind	Limb bone	Ind	Ind	4	5.8
012	00272.02	Bird/small mammal	Ind	Limb bone	Ind	Ind	1	0.1
013	00272.03	Ind Mammal	Ind	Cranium	Ind	Ind	5	2
014	02337.01	Bos taurus	Ind	Rib	Ind	Adult	1	18.7
015	02337.02	Ind Mammal	Ind	Cranium	Ind	Ind	7	2
016	02337.03	Ind Mammal	Ind	Rib	Ind	Ind	2	1.6
017	02229.01	Bos taurus	Ind	Mandible	Ind	Adult	1	1.2
018	02229.02	Ind Mammal	Ind	Ind	Ind	Ind	1	0.4
019	02250.01	Med Mammal	Ind	Limb bone	Ind	Ind	1	1
020	02250.01	Ind Mammal	Ind	Limb bone	Ind	Ind	1	0.3
021	01303.01	Med Mammal	Ind	Cranium	Ind	Ind	2	2
022	01664.01	Ind Mammal	Ind	Ind	Ind	Ind	2	0.7
023	02234.01	Ind Mammal	Ind	Cranium	Ind	Ind	3	1.3
024	0220.01	Sm Mammal	Ind	Ind	Ind	Ind	1	0.3
								0
T3-5								0
025	01422.01	Bos taurus	Ind	Rib	Ind	Adult	1	5.9
026	01422.02	Bos taurus	Ind	Rib	Ind	Adult	1	20
027	01422.03	Bos taurus	Ind	Rib	Ind	Adult	1	21.4
028	01422.04	Bos taurus	Ind	Rib	Ind	Adult	1	1.3
029	01422.05	Bos taurus	Ind	Rib	Ind	Adult	1	1.8

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo.	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
030	01422.06	Bos taurus	Ind	Rib	Ind	Adult	1	1
031	01422.07	Bos taurus	Ind	Rib	Ind	Adult	1	0.6
032	01422.08	Lg Mammal	Ind	Rib	Ind	Adult	5	0.4
033	02952.01	Bos taurus	Ind	Rib	Ind	Adult	1	7
034	02952.02	Bos taurus	Axial	Lumbar vert	Ind	Adult	1	8.9
035	02952.03	Bos taurus	Axial	Lumbar vert	Unf	Adult	1	22.6
036	02952.04	Bos taurus	Axial	Lumbar vert	Unf	Adult	1	5.1
037	02952.05	Bos taurus	Axial	Lumbar vert	Unf	Adult	1	4.9
038	02952.06	Bos taurus	Axial	Lumbar vert	Ind	Adult	1	2.3
039	02952.07	Lg Mammal	Ind	Ind vert	Ind	Ind	12	6.7
040	02952.08	Lg Mammal	Ind	Rib	Ind	Ind	3	2.3
041	02952.09	Ind Mammal	Ind	Ind	Ind	Ind	9	5
042	01378.01	Bos taurus	Ind	Rib	Ind	Adult	1	7.9
043	01378.02	Ind Mammal	Ind	Rib	Ind	Ind	8	4.9
044	01378.03	Ind Mammal	Ind	Ind vert	Ind	Ind	13	7.9
045	01378.04	Ind Mammal	Ind	Ind	Ind	Ind	16	1.3
046	02610.01	Artiodactyla II	Axial	Thoracic vert	Ind	Adult	1	2.6
047	02610.02	Bos taurus	Axial	Ind vert	Unf	Imm	1	2.9
048	02610.03	Ind Mammal	Ind	Limb bone	Ind	Ind	1	2.1
049	02610.04	Ind Mammal	Ind	Ind vert	Ind	Ind	1	1.6
050	02610.05	Ind Mammal	Ind	Ind	Ind	Ind	3	1.9
051	00704.01	Gallus gallus	R	Carpometacarpus	F	Adult	1	0.6
052	00704.02	Ovis aries/capra hircus	R	Radius	Ind	Adult	1	1.6
053	00704.03	Artiodactyla II	Axial	Ind Vert	Unf	Adult	1	2.5
054	00704.04	Ind Mammal	Ind	Ind	Ind	Ind	21	14.3
745	00704.05	Ind Mammal	Ind	Limb bone	Ind	Ind	3	4
746	00704.06	Ind Mammal	Ind	Cranium	Ind	Ind	24	12.7
747	00704.07	Ind Mammal	Ind	Innominate	Ind	Ind	2	1.3
055	02963.01	Ind Mammal	Ind	Ind	Ind	Ind	8	3.2
056	01390.01	Ovis aries/capra hircus	Ind	Rib	Ind	Ind	1	1.5
057	01390.02	Sciuridae	L	Femur	Ind	Adult	1	0.1
058	01390.03	Gallus gallus	Axial	Lumbar vert	F	Adult	1	0.3

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
059	01390.04	Gallus gallus	Axial	Lumbar vert	F	Adult	1	0.4
060	01390.05	Ind Mammal	Ind	Limb bone	Ind	Ind	5	3.4
061	01390.06	Ind Mammal	Ind	Ind	Ind	Ind	26	7.5
062	01390.07	Ind Mammal	Ind	Cranium	Ind	Ind	6	4.4
063	01370.01	Artiodactyla II	Ind	Rib	Ind	Adult	1	0.5
064	01370.02	Ind Mammal	Ind	Ind	Ind	Ind	2	0.1
065	01419.01	Ind Mammal	Ind	Ind	Ind	Ind	5	1
066	02940.01	Bos taurus	R	Ulna	Ind	Adult	1	9.1
067	02940.02	Bos taurus	R	Ulna	Ind	Adult	1	0.5
068	01375.01	Thomomys talpoides	R	Mandible	Ind	Adult	1	0.6
069	01375.02	Ind Mammal	Ind	Ind	Ind	Ind	78	8.5
070	01375.03	Ind Mammal	Ind	Limb bone	Ind	Ind	2	0.9
071	01375.04	Ind Mammal	Ind	Cranium	Ind	Ind	6	5.6
072	01382.01	Bos taurus	R	Innominate	Ind	Adult	1	14.5
137	02952.10	Ind Mammal	Ind	Innominate	Ind	Adult	3	4.7
138	01378.05	Bos taurus	Ind	Scapula	F	Adult	1	10.5
139	01378.06	Bos taurus	Ind	Main metatarsal	Ind	Adult	1	18.1
								0
T3-2								0
073	02948.01	Bos taurus	Ind	Rib	Ind	Adult	1	41.8
074	02948.02	Phasianidae	L	Tarsometatarsus	F	Adult	1	2
075	02948.03	Ovis aries/Capra hircus	Ind	Rib	F	Adult	1	4.2
076	02948.04	Ovis aries/Capra hircus	Ind	Rib	Ind	Adult	1	2.4
077	02948.05	Ovis aries/Capra hircus	Ind	Rib	Ind	Adult	1	0.7
078	02948.06	Bos taurus	L	Ulna	Main metacarpal	Adult	1	11.4
079	02948.07	Bos taurus	Ind	Patella	Ind	Adult	1	17.4
080	02948.08	Bos taurus	L	Innominate	Ind	Adult	1	33.4
081	02948.09	Ind Mammal	Ind	Ind	Ind	Ind	1	2.6
082	1823.01	Bos taurus	Axial	Sacrum	F	Adult	1	15
083	02964.01	Bos taurus	L	Scapula	Ind	Adult	1	25.7
084	00602.01	Bos taurus	Ind	Rib	F	Adult	1	4.4
085	00602.02	Bos taurus	Ind	Rib	Ind	Adult	1	22.5

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
086	00602.03	Bos taurus	R	Mandible	Ind	Adult	1	2.7
087	00602.04	Ind Mammal	Ind	Ind	Ind	Ind	15	3.4
088	01389.01	Bos taurus	L	Mandible	Ind	Imm	1	1.4
089	01389.02	Bos taurus	Ind	Scapula	Unf	Imm	1	5
090	01389.03	Bos taurus	R	Astragalus	F	Adult	1	15.8
091	01389.04	Bos taurus	R	Astragalus	F	Adult	1	6.5
092	01389.05	Bos taurus	R	Astragalus	F	Adult	1	6.7
093	01389.06	Bos taurus	R	Astragalus	F	Adult	1	13.3
094	01389.07	Lg Mammal	Ind	Ind	Ind	Ind	14	16.5
095	01406.01	Bos taurus	Ind	Rib	Ind	Adult	1	4.7
096	01408.01	Bos taurus	Axial	Sacral Vert	F	Adult	1	6.4
097	01360.01	Bos taurus	L	Innominate	Unf	Adult	1	33.6
098	01360.02	Ind Mammal	Ind	Ind	Ind	Ind	14	4.2
099	01360.03	Ind Mammal	Ind	Limb bone	Ind	Ind	3	7.9
100	01360.04	Ind Mammal	Ind	Cranium	Ind	Ind	2	0.6
101	1746.01	Phasianidae	Axial	Thoracic vert	F	Adult	1	0.2
102	1746.02	Lg Mammal	Ind	Ind Vert	Ind	Ind	2	2.3
103	1746.03	Ind Mammal	Ind	Cranium	Ind	Ind	3	1.4
104	1746.04	Ind Mammal	Ind	Limb bone	Ind	Ind	3	5.2
105	1746.05	Ind Mammal	Ind	Ind	Ind	Ind	29	10.1
106	02903.01	Gallus gallus	L	Coracoid	Ind	Adult	1	0.4
107	02903.02	Gallus gallus	L	Tibiotarsus	Ind	Adult	1	0.3
108	02903.04	Gallus gallus	R	Ulna	Ind	Adult	1	0.7
109	02903.05	Bos taurus	Ind	Lower incisor		Adult	1	0.7
110	02903.06	Ovis aries/Capra hircus	Ind	Rib	Ind	Adult	1	2
111	02903.07	Bos taurus	Ind	Rib	Ind	Adult	1	5.8
112	02903.08	Bos taurus	Ind	Rib	Ind	Adult	1	7
113	02903.09	Bos taurus	Ind	Ind tooth		Adult	1	0.3
114	02903.10	Ind Mammal	Ind	Limb bone	Ind	Ind	3	3.3
115	02903.11	Ind Mammal	Ind	Cranium	Ind	Ind	2	1.4
116	02903.12	Ind Mammal	Ind	Ind vert	Ind	Ind	2	3
117	02903.13	Ind Mammal	Ind	Ind	Ind	Ind	24	10.1

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
118	01791.02	Ind Mammal	Ind	Limb bone	Ind	Ind	6	25.9
119	01791.03	Ind Mammal	Ind	Ind vert	Ind	Ind	10	21.8
120	01791.04	Ind Mammal	Ind	Rib	Ind	Ind	2	1.9
121	01791.05	Ind Mammal	Ind	Cranium	Ind	Ind	1	3.2
122	01791.06	Ind Mammal	Ind	Ind	Ind	Ind	19	11.5
								0
T3-A2								0
123	02967.01	Bos taurus	Ind	Rib	Ind	Adult	1	2.3
124	02967.02	Ind Mammal	Ind	Ind vert	Ind	Ind	2	1.5
125	01397.01	Bos taurus	Ind	Rib	Ind	Adult	1	11
126	01397.02	Bos taurus	Ind	Rib	Ind	Adult	1	1.9
127	01397.03	Bos taurus	Ind	Rib	Ind	Adult	1	2.4
128	01397.04	Bos taurus	Ind	Rib	Ind	Adult	1	1.9
129	01397.05	Bos taurus	R	Innominate	Unf	Adult	1	14.3
130	01397.06	Lg Mammal	Ind	Rib	Ind	Ind	2	1.7
131	01350.01	Ind Mammal	Ind	Rib	Ind	Ind	1	0.6
132	01350.02	Ind Mammal	Ind	Limb bone	Ind	Ind	2	3.9
133	02947.01	Ind Mammal	Ind	Ind	Ind	Ind	3	0.4
134	02942.01	Ind Mammal	Ind	Ind	Ind	Ind	1	0.4
135	02959.01	Ind Mammal	Ind	Ind	Ind	Ind	4	1.7
136	01354.01	Ind Mammal	Ind	Ind	Ind	Ind	1	0.2
140	02946.01	Bos taurus	Axial	Ind vert	Unf	Imm	1	4.4
141	02946.02	Lg Mammal	Ind	Ind vert	Ind	Ind	3	8.3
142	02946.03	Lg Mammal	Ind	Ind	Ind	Ind	1	5.2
143	01380.01	Ind Mammal	Ind	Rib	Ind	Ind	2	2.4
144	01380.02	Ind Mammal	Ind	Ind	Ind	Ind	11	18.2
145	01368.01	Bos taurus	Ind	Sesamoid	Ind	Adult	1	12.4
146	02961.01	Bos taurus	Ind	Main metacarpal	Ind	Adult	1	14.7
147	02979.01	Bos taurus	R	Tibia	Ul	Imm	1	18.6
148	02979.02	Bos taurus	l	Femur	Ul	Adult	1	11.2
149	02979.03	Bos taurus	Ind	Rib	Ind	Adult	1	13.2
150	02979.04	Bos taurus	Ind	Femur	Ind	Adult	1	1.8

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
151	02979.05	Bos taurus	Ind	Femur	Ind	Adult	1	1.7
152	02979.06	Bos taurus	Ind	Femur	Ind	Adult	1	1.3
153	02979.07	Bos taurus	Ind	Femur	Ind	Adult	1	3.3
154	02979.08	Lg Mammal	Ind	Limb bone	Ind	Ind	2	17.3
155	02979.09	Lg Mammal	Ind	Ind	Ind	Ind	26	17.5
156	01370.01	Bos taurus	Ind	Phalanx	F	Adult	1	7
157	01370.02	Bos taurus	Ind	Phalanx	F	Adult	1	2.3
158	01370.03	Bos taurus	Ind	Phalanx	F	Adult	1	2.3
159	01370.04	Ind Mammal	Ind	Ind	Ind	Ind	23	10
160	01392.01	Bos taurus	Ind	Phalanx	F	Adult	1	16.1
161	01392.02	Ovis aries/Capra hircus	Axial	Ind vert	Unf	Adult	1	0.7
162	01392.03	Odocoileus hemionus	Ind	Main metatarsal	Ind	Adult	1	1.8
163	01392.04	Odocoileus hemionus	Ind	Main metatarsal	Unf	Adult	1	5.3
164	01392.05	Odocoileus hemionus	Ind	Main metacarpal	Ind	Adult	1	1.6
165	01392.06	Odocoileus hemionus	Ind	Main metacarpal	Ind	Adult	1	5.1
166	01392.07	Bos taurus	Ind	Rib	Ind	Adult	1	6.9
167	01392.08	Bos taurus	Ind	Rib	Ind	Adult	1	17.1
168	01392.09	Bos taurus	Ind	Rib	Ind	Adult	1	4.7
169	01392.10	Bos taurus	Ind	Rib	Ind	Adult	1	9.5
170	01392.11	Bos taurus	Ind	Rib	Ind	Adult	1	3.2
171	01392.12	Bos taurus	Ind	Rib	Ind	Adult	1	4.7
172	01392.13	Bos taurus	Ind	Rib	Ind	Adult	1	4.4
173	01392.14	Bos taurus	Ind	Rib	Ind	Adult	1	1.7
174	01392.15	Bos taurus	Ind	Rib	Ind	Adult	1	2.1
175	01392.16	Bos taurus	Ind	Rib	Ind	Adult	1	2.3
176	01392.17	Bos taurus	Ind	Rib	Ind	Adult	1	3.5
177	01392.18	Bos taurus	Ind	Rib	Ind	Adult	1	3.8
178	01392.19	Bos taurus	Ind	Rib	Ind	Adult	1	2.3
179	01392.20	Bos taurus	Ind	Rib	Ind	Adult	1	3.2
180	01392.21	Bos taurus	Ind	Rib	Ind	Adult	1	2.6
181	01392.22	Odocoileus hemionus	Ind	Rib	Ind	Adult	1	1
182	01392.23	Bos taurus	Ind	Scapula	F	Adult	1	0.9

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
183	01392.24	Ind Mammal	Ind	Rib	Ind	Ind	36	31.2
184	01392.25	Ind Mammal	Ind	Limb bone	Ind	Ind	9	12.5
185	01392.26	Ind Mammal	Ind	Ind	Ind	Ind	170	37.4
186	01358.01	Peromyscus californicus	Axial	Cranium	F	Adult	1	1.1
187	01358.02	Peromyscus californicus	R	Maxilla	F	Adult	1	0.2
188	01358.03	Peromyscus californicus	L	Maxilla	F	Adult	1	0.2
189	02962.01	Bos taurus	Ind	Rib	Ind	Adult	1	2.4
190	02962.02	Bos taurus	Ind	Rib	Ind	Adult	1	0.7
191	02962.03	Bos taurus	Ind	Rib	Ind	Adult	1	1.2
192	02962.04	Bos taurus	Axial	Thoracic vert	Ind	Adult	1	1.2
193	02962.05	Bos taurus	Ind	Rib	Ind	Adult	1	3.6
194	02962.06	Gallus gallus	R	Ulna	F	Adult	1	0.5
195	02962.07	Gallus gallus	R	Tibiotarsus	Ind	Adult	1	1.3
196	02962.08	Gallus gallus	R	Tibiotarsus	Ind	Adult	1	0.8
197	02962.09	Gallus gallus	Axial	Synsacrum	F	Adult	1	0.3
198	02962.10	Duck spp.	L	Ulna	IF	Adult	1	0.2
199	02962.11	Phasianidae	R	Femur	Ind	Adult	1	0.9
200	02962.12	Phasianidae	R	Femur	Ind	Adult	1	0.1
201	02962.13	Mephitis mephitis	Axial	Caudal vert	F	Adult	1	0.2
202	02962.14	Sm Mammal	L	Meatus acusticus	Ind	Adult	1	0.6
203	02962.15	Cricetidae	R	Tibia	Ind	Adult	1	0.1
204	02962.16	Ind Mammal	Ind	Cranium	Ind	Ind	15	8.4
205	02962.17	Ind Mammal	Ind	Ind	Ind	Ind	126	44.5
206	02962.18	Lg Mammal	Ind	Ind Vert	Ind	Ind	6	8
207	02962.19	Ind Mammal	Ind	Rib	Ind	Ind	13	8.2
208	02951.01	Odocoileus hemionus	Ind	Main metacarpal	Ind	Adult	1	3.7
209	02951.02	Odocoileus hemionus	Axial	Cervical vert	Ind	Adult	1	0.8
210	02951.03	Gallus gallus	L	Sternum	Unf	Imm	1	0.1
211	02951.04	Gallus gallus	L	Phalanx I, Digit II	Unf	Imm	1	0.1
212	02951.05	Gallus gallus	Ind	Ungual phalanx	Ind	Adult	1	0.4
213	02951.06	Ind Bird	L	Tibiotarsus	IF	Imm	1	0.3
214	02951.07	Ind Mammal	Ind	Ind	Ind	Ind	282	59.8

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
215	02951.08	Med Mammal	Ind	Limb bone	Ind	Ind	7	4.6
216	02951.09	Lg Mammal	Ind	Ind Vert	Ind	Ind	4	7.6
217	02951.10	Ind Mammal	Ind	Rib	Ind	Ind	22	14.6
218	02951.11	Ind Mammal	Ind	Cranium	Ind	Ind	4	2.2
219	02944.01	Ind Fish	Axial	Caudal vert		Adult	1	0.2
220	02945.01	Bos taurus	Ind	Ind tooth	Ind	Imm	1	1.6
								0
T3-B2								0
221	01403.01	Bos taurus	R	Ulna	Ind	Adult	1	30.7
222	01403.02	Bos taurus	R	Radius	Ind	Adult	1	157.9
223	01403.03	Ovis aries/capra hircus	Axial	Thoracic vert	Unf	Adult	1	4.8
224	01403.04	Ovis aries/capra hircus	R	Femur	IU	Imm	1	1.7
225	01403.05	Ovis aries/capra hircus	Ind	Molar		Imm	1	1
226	01403.06	Ovis aries/capra hircus	R	Paramastoid process	Ind	Adult	1	1.3
227	01403.07	Bos taurus	Axial	Ind vert	Ind	Adult	1	0.8
228	01403.08	Ind Mammal	Ind	Rib	Ind	Ind	3	1.6
229	01403.09	Sm Mammal	Ind	Cranium	Ind	Ind	1	0.2
230	01403.10	Ind Mammal	Ind	Ind	Ind	Ind	6	8.5
231	01381.10	Bos taurus	Ind	Rib	Ind	Adult	1	1.2
232	01405.01	Bos taurus	R	Calcaneous	F	Adult	1	90.9
233	01398.02	Bos taurus	R	Humerus	IF	Adult	1	56.1
234	01398.02	Bos taurus	R	Humerus	Ind	Adult	1	22.9
235	01398.03	Bos taurus	R	Humerus	Ind	Adult	1	3.7
236	01398.04	Bos taurus	R	Humerus	Ind	Adult	1	20.2
237	02850.01	Bos taurus	L	Innominate	Ind	Adult	1	11.5
238	02950.02	Gallus gallus	R	Scapula	F	Adult	1	0.4
239	02950.03	Procyonidae	Axial	Cervical vert	F	Adult	1	0.3
240	02950.04	Bos taurus	R	Mandible	Ind	Adult	1	4.9
241	02950.05	Bos taurus	R	Mandible	Ind	Adult	1	2.1
242	02950.06	Bos taurus	R	Mandible	Ind	Adult	1	3.2
243	02950.07	Bos taurus	Ind	Rib	Unf	Adult	1	12.6
244	02950.08	Bos taurus	Ind	Rib	Ind	Adult	1	12.1

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
245	02950.09	Bos taurus	Ind	Rib	Ind	Adult	1	4
246	02950.10	Bos taurus	Ind	Rib	Ind	Adult	1	4.5
247	02950.11	Bos taurus	Ind	Rib	Ind	Adult	1	2.8
248	02950.12	Bos taurus	Ind	Rib	Ind	Adult	1	2.6
249	02950.13	Bos taurus	Ind	Rib	Ind	Adult	1	1.9
250	02950.14	Bos taurus	Ind	Rib	Ind	Adult	1	2.4
251	02950.15	Bos taurus	Ind	Rib	Ind	Adult	1	1.1
252	02950.16	Bos taurus	Ind	Rib	Ind	Adult	1	1.3
253	02950.17	Bos taurus	Ind	Rib	Ind	Adult	1	1.5
254	02950.18	Ind Mammal	Ind	Ind vert	Ind	Ind	9	20.4
255	02950.19	Ind Mammal	Ind	Rib	Ind	Ind	6	6
256	02950.20	Ind Mammal	Ind	Ind	Ind	Ind	158	64
257	02971.01	Citellus beecheyi	R	Radius	FI	Adult	1	0.2
258	02971.02	Citellus beecheyi	Ind	Metatarsal, unknown	F	Adult	1	0.2
259	02971.03	Bos taurus	L	Scapula	F	Adult	1	29.2
260	02971.04	Ovis aries/capra hircus	L	Femur	UI	Adult	1	1.9
261	02971.05	Ovis aries/capra hircus	Axial	Cervical vert	Ind	Adult	1	1.8
262	02971.06	Ovis aries/capra hircus	R	Paramastoid process	Ind	Adult	1	1.2
263	02971.07	Ovis aries/capra hircus	R	Mandible	Ind	Adult	1	0.7
264	02971.08	Bos taurus	Ind	Rib	Ind	Adult	1	2.5
265	02971.09	Bos taurus	Ind	Rib	Ind	Adult	1	2.8
266	02971.10	Ind Mammal	Ind	Cranium	Ind	Ind	8	6.8
267	02971.11	Ind Mammal	Ind	Rib	Ind	Ind	20	14.6
268	02971.12	Ind Mammal	Ind	Ind	Ind	Ind	219	73.5
269	01361.01	Ind Mammal	Ind	Ind	Ind	Ind	54	39.2
270	01372.01	Ind Mammal	Ind	Ind	Ind	Ind	11	7.6
271	02982.01	Bos taurus	Ind	Rib	Ind	Adult	1	6.4
272	02982.02	Ind Bird	Ind	Limb bone	Ind	Ind	1	0.1
273	02982.03	Ind Mammal	Ind	Rib	Ind	Ind	12	6.4
274	02982.04	Med Mammal	Ind	Ind vert	Ind	Ind	2	0.8
275	02982.05	Ind Mammal	Ind	Ind	Ind	Ind	64	9.9
276	01374.01	Ind Mammal	Ind	Rib	Ind	Ind	1	0.5

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
277	01374.02	Lg Mammal	Ind	Limb bone	Ind	Ind	5	30.6
278	01374.03	Lg Mammal	Ind	Cranium	Ind	Ind	1	8.5
279	01374.06	Lg Mammal	Ind	Ind vert	Ind	Ind	1	2.8
280	01374.04	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.3
281	01374.05	Ind Mammal	Ind	Ind	Ind	Ind	142	112.1
282	01400.01	Ovis aries/capra hircus	L	Humerus	Ind	Adult	1	5.7
283	01400.02	Bos taurus	Axial	Ind vert	F	Adult	1	3
284	01400.03	Bos taurus	Axial	Ind vert	Unf	Adult	1	4.7
285	01400.04	Ind Mammal	Ind	Rib	Ind	Ind	8	7
286	01400.08	Lg Mammal	Ind	Limb bone	Ind	Ind	3	14.5
287	01400.06	Ind Mammal	Ind	Ind vert	Ind	Ind	6	21.4
288	01400.07	Ind Mammal	Ind	Ind	Ind	Ind	29	14.4
289	01377.01	Bos taurus	Ind	Rib	Ind	Adult	1	1.6
290	01377.02	Ovis aries/capra hircus	Ind	Astragalus	F	Adult	1	3
291	01377.03	Ind Mammal	Ind	Cranium	Ind	Ind	1	0.5
292	01377.04	Ind Mammal	Ind	Ind	Ind	Ind	3	2.2
293	02953.01	Ind Mammal	Ind	Ind	Ind	Ind	1	2.1
294	01392.01	Ind Mammal	Ind	Ind	Ind	Ind	58	16.8
295	02937.01	Ind Mammal	Ind	Cranium	Ind	Ind	8	5.1
296	02937.02	Ind Mammal	Ind	Ind	Ind	Ind	35	4.2
297	02974.01	Ind Mammal	Ind	Ind	Ind	Ind	8	5.5
298	02939.01	Ind Mammal	Ind	Ind	Ind	Ind	1	0.3
299	01387.01	Ind Mammal	Ind	Ind	Ind	Ind	9	7.5
300	01363.01	Ind Mammal	Ind	Cranium	Ind	Ind	1	0.3
301	01352.01	Ind Mammal	Ind	Cranium	Ind	Ind	4	1.7
302	01367.01	Ind Mammal	Ind	Cranium	Ind	Ind	2	0.2
303	01367.02	Bos taurus	Ind	Molar	Ind	Adult	1	1.3
304	01367.03	Bos taurus	Ind	Incisor	Ind	Adult	1	1.4
								0
T3-8								0
305	01137.01	Bos taurus	Ind	Main metatarsal	Unf	Adult	1	157.5
306	02938.01	Ind Mammal	Ind	Ind	Ind	Ind	4	1.1

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
307	02977.01	Bos taurus	L	Astragalus	Ind	Adult	1	19.7
308	02977.02	Bos taurus	L	Astragalus	Ind	Adult	13	5.3
309	01355.01	Bos taurus	Axial	Lumbar vert	F	Adult	1	18.4
310	01355.02	Ind Mammal	Ind	Ind	Ind	Ind	2	0.9
311	02960.01	Bos taurus	R	Calcaneous	Unf	Adult	1	56.8
312	02980.01	Lg Mammal	Ind	Ind Vert	Ind	Ind	4	12.9
313	02980.02	Ind Mammal	Ind	Ind	Ind	Ind	22	4.9
314	02980.03	Sm Mammal	Ind	Cranium	Ind	Ind	2	0.2
315	02985.01	Bos taurus	R	Ulna	IU	Adult	1	7
316	01359.01	Ovis aries/Capra hircus	Axial	Lumbar vert	Unf	Adult	1	13.5
317	01359.02	Ovis aries/Capra hircus	Axial	Lumbar vert	Ind	Adult	1	1.1
318	02976.01	Bos taurus	Axial	Lumbar vert	Ind	Adult	1	11.3
319	01396.01	Bos taurus	Axial	Cervical vert	Ind	Adult	1	26.8
320	01396.02	Bos taurus	Axial	Cervical vert	Ind	Adult	6	16
321	01396.03	Bos taurus	Axial	Lumbar vert	Ind	Adult	1	14.6
322	02965.01	Odocoileus hemionus	L	Humerus	FI	Adult	1	38.5
323	01402.01	Ovis aries/Capra hircus	Axial	Cervical vert	Unf	Adult	1	11.8
324	02949.01	Bos taurus	L	Ulna	Ind	Adult	1	8.3
325	02949.02	Lg Mammal	Ind	Cranium	Ind	Ind	3	2.3
326	02949.03	Lg Mammal	Ind	Ind	Ind	Ind	20	21.8
327	02970.01	Ind Mammal	Ind	Ind	Ind	Ind	4	1.3
328	01365.01	Procyon Lotor	R	Ulna	FI	Adult	1	2.9
329	01386.01	Bos taurus	Ind	Rib	Ind	Adult	1	23
330	01386.02	Bos taurus	Ind	Rib	Ind	Adult	1	3
331	01373.01	Ovis aries/Capra hircus	R	Rib	F	Adult	1	4.5
332	01373.02	Ind Mammal	Ind	Ind	Ind	Ind	3	1.4
333	01394.01	Bos taurus	R	Astragalus	F	Adult	1	65
334	01394.02	Bos taurus	R	Fourth tarsal	F	Adult	1	35.5
335	01397.01	Bos taurus	R	Fourth tarsal	F	Adult	1	34.3
336	02983.01	Bos taurus	R	Innominate	F	Adult	1	220.6
337	02983.02	Bos taurus	R	Innominate	Ind	Adult	1	16
338	02983.03	Bos taurus	R	Innominate	Ind	Adult	1	14.5

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
339	02983.04	Bos taurus	R	Innominate	Ind	Adult	4	7.7
340	02983.05	Bos taurus	R	Innominate	Ind	Adult	1	10.8
341	02983.06	Ind Mammal	Ind	Ind	Ind	Ind	1	2.4
342	01367.01	Bos taurus	Ind	Rib	F	Adult	1	14.1
343	01385.01	Bos taurus	Ind	Rib	Ind	Adult	1	5
344	02981.01	Ind Mammal	Ind	Ind	Ind	Ind	19	15.7
345	02981.02	Ind Mammal	Ind	Ind Vert	Ind	Ind	1	0.7
413	01592.01	Bos taurus	R	Tibia	UU	Adult	1	259.6
414	01592.02	Bos taurus	R	Femur	FI	Adult	1	384.7
								0
T3-1								0
346	01391.01	Bos taurus	Ind	Rib	Ind	Adult	1	30.8
347	02954.01	Bos taurus	R	Second phalanx ind	F	Adult	1	20.3
348	BLANK	Artiodactyla II	L	Femur	IU	Adult	1	4.8
349	00612.01	Ovis aries/Capra hircus	L	Scapula	F	Adult	1	3
350	00612.02	Bos taurus	L	Scapula	F	Adult	1	5.8
351	00612.03	Bos taurus	L	Scapula	Ind	Adult	1	7.3
352	00612.04	Bos taurus	L	Scapula	Ind	Adult	1	4.5
353	00612.05	Bos taurus	Axial	Ind vert	Unf	Adult	1	7
354	00612.06	Bos taurus	Axial	Ind vert	Unf	Adult	1	0.7
355	00612.07	Lg mammal	Ind	Ind	Ind	Ind	7	27.5
								0
T3-7								0
356	01399.01	Bos taurus	Ind	Rib	Ind	Adult	1	37.6
357	01399.02	Ind Mammal	Ind	Rib	Ind	Ind	3	3
358	01384.01	Bos taurus	Ind	Rib	Ind	Adult	1	29.9
359	01388.01	Bos taurus	Axial	Hyoid	F	Adult	1	4.9
360	01388.02	Ind Mammal	Ind	Ind	Ind	Ind	16	6.1
361	02969.03	Bos taurus	Ind	Rib	Ind	Adult	1	8.6
362	01376.01	Bos taurus	R	Upper premolar 2	Ind	Adult	1	8.2
363	01401.01	Ovis aries/Capra hircus	Axial	Lumbar vert	Ind	Adult	1	0.9
364	01401.02	Ovis aries/Capra hircus	Axial	Lumbar vert	Ind	Adult	1	1.1

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
365	01411.01	Bos taurus	Ind	Rib	Ind	Adult	1	18.5
366	01411.02	Bos taurus	R	Innominate	Ind	Adult	1	13.8
367	01411.03	Ardea herodias	R	Humerus	Fl	Adult	1	5.1
368	02957.01	Lg Mammal	Ind	Ind vert	Ind	Ind	12	22.5
								0
T3-B1								0
369	02973.01	Ind Mammal	Ind	Ind	Ind	Ind	3	4.8
370	01383.01	Ind Mammal	Ind	Rib	Ind	Ind	3	0.8
371	01383.02	Ind Mammal	Ind	Ind	Ind	Ind	6	2.4
372	02955.01	Med Mammal	Ind	Rib	Ind	Ind	1	1
373	01362.01	Lg Mammal	Ind	Ind	Ind	Ind	5	12.7
374	01371.01	Ovis aries/Capra hircus	Axial	Ind vert	Unf	Adult	1	1.3
375	01371.02	Rodentia	Ind	Phalanx	F	Adult	1	0.1
376	01371.03	Lg Mammal	Ind	Ind vert	Ind	Ind	14	20.5
377	01371.04	Ind Mammal	Ind	Ind	Ind	Ind	18	6.8
378	01371.05	Sm Mammal	Ind	Limb bone	Ind	Ind	5	1.7
379	01371.06	Med Mammal	Ind	Limb bone	Ind	Ind	1	2
								0
T3-3								0
380	01404.01	Ind Mammal	Ind	Ind	Ind	Ind	5	0.2
381	02978.01	Ind Mammal	Ind	Ind	Ind	Ind	2	2.9
382	01429.01	Bos taurus	Ind	Rib	Ind	Adult	1	2.9
383	01429.02	Bos taurus	Ind	Rib	Ind	Adult	1	2.6
384	01429.03	Bos taurus	Ind	Rib	Ind	Adult	1	4.9
385	01429.04	Bos taurus	Ind	Rib	Ind	Adult	1	2.1
386	01429.05	Bos taurus	Ind	Rib	Ind	Adult	1	1.6
387	01429.06	Ind Mammal	Ind	Rib	Ind	Ind	12	10.3
388	01429.07	Med Mammal	Ind	Limb bone	Ind	Ind	4	6.1
389	01429.08	Lg Mammal	Ind	Ind vert	Ind	Ind	3	6.3
390	01429.09	Ind Mammal	Ind	Ind	Ind	Ind	36	9.5
391	01410.01	Ind Mammal	Ind	Ind	Ind	Ind	3	0.6
392	01420.01	Ovis aries/Capra hircus	Ind	Femur	G	Ind	1	3.1

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
393	01413.01	Bos taurus	Ind	Carpal	Unf	Adult	1	19.1
394	01413.02	Ind Mammal	Ind	Rib	Ind	Ind	7	5
395	01413.03	Ind Mammal	Ind	Limb bone	Ind	Ind	2	4.3
396	01413.04	Ind Mammal	Ind	Ind	Ind	Ind	10	8.8
397	01416.01	Ovis aries/Capra hircus	Ind	Premolar	Ind	Adult	1	0.8
398	01351.01	Bos taurus	Ind	Incisor	Ind	Adult	1	0.6
								0
T3-6								0
399	02943.01	Ind Mammal	Ind	Ind	Ind	Ind	12	5.1
400	02943.02	Ind Bird	Ind	Limb bone	Ind	Ind	1	0.1
401	02956.01	Ind Mammal	Ind	Ind	Ind	Ind	5	2.3
402	01409.01	Bos taurus	Ind	Rib	Ind	Adult	1	7.9
403	01409.02	Bos taurus	Ind	Rib	Ind	Adult	1	18.9
404	01409.03	Ind Mammal	Ind	Ind	Ind	Ind	7	8.2
405	02975.01	Ovis aries/Capra hircus	R	Humerus	IU	Adult	1	10.2
406	02975.02	Ovis aries/Capra hircus	R	Scapula	Unf	Adult	1	5.3
407	02975.03	Lepus californicus	PXE	Femur	FI	Adult	1	0.6
408	02975.04	Ind Mammal	Ind	Cranium	Ind	Ind	1	0.6
409	02975.05	Sm Mammal	Ind	Limb bone	Ind	Ind	4	0.7
410	02975.06	Med Mammal	Ind	Limb bone	Ind	Ind	1	1
411	02975.07	Ind Mammal	Ind	Rib	Ind	Ind	4	8.2
412	02975.08	Ind Mammal	Ind	Ind	Ind	Ind	75	30.2
								0
s40e12								0
415	02909.01	Ind Mammal	Ind	Ind	Ind	Ind	1	1.4
416	02902.02	Lg Mammal	Ind	Rib	Ind	Ind	1	2.1
417	02907.01	Ind Mammal	Ind	Ind	Ind	Ind	10	2
418	02907.02	Gallus gallus	Ind	Tibiotarsus	Ul	Adult	1	1.9
419	02904.01	Ind Mammal	Ind	Ind	Ind	Ind	7	1.4
420	02910.01	Ind Mammal	Ind	Ind	Ind	Ind	20	1.5
421	02910.02	Gallus gallus	L	Coracoid	F	Adult	1	0.2
422	02905.01	Ind Mammal	Ind	Ind	Ind	Ind	5	1.5

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
423	02905.02	Lg Mammal	Ind	Ind	Ind	Ind	1	11.5
424	02908.01	Ind Mammal	Ind	Ind	Ind	Ind	7	3.3
425	02906.01	Ind Mammal	Ind	Ind	Ind	Ind	14	5.5
								0
s40e14								0
426	01826.01	Bos taurus	Ind	Rib	Ind	Adult	1	1
427	01826.02	Ind Mammal	Ind	Ind	Ind	Ind	1	0.3
428	02931.01	Ind Mammal	Ind	Ind	Ind	Ind	7	1.4
429	02923.01	Ind Mammal	Ind	Ind	Ind	Ind	5	0.4
430	02928.01	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.5
431	02924.01	Ind Mammal	Ind	Ind	Ind	Ind	2	0.9
432	00624.01	Lg Mammal	Ind	Ind	Ind	Ind	11	9.7
433	02920.01	Ind Mammal	Ind	Ind	Ind	Ind	4	0.4
434	02926.01	Ind Mammal	Ind	Ind	Ind	Ind	1	0.6
435	02927.01	Lg Mammal	Ind	Rib	Ind	Ind	1	4
436	02927.02	Ind Mammal	Ind	Ind	Ind	Ind	1	2.4
437	02922.01	Felis domesticus	L	Tibia	UI	Adult	1	0.9
438	02922.02	Felis domesticus	L	Tibia	IU	Adult	1	0.7
439	02922.03	Ovis aries/Capra hircus	Axial	Thoracic vert	F	Adult	1	6.5
440	02922.04	Ovis aries/Capra hircus	Axial	Thoracic vert	Ind	Adult	1	0.6
441	02922.05	Rabitt spp.	L	Femur	UI	Adult	1	0.4
442	02922.06	Rabitt spp.	L	Femur	Ind	Adult	1	0.3
443	02922.07	Med Mammal	Ind	Ind vert	Ind	Ind	7	2.7
444	02922.08	Lg Mammal	Ind	Ind vert	Ind	Ind	4	5.8
445	02922.09	Ind Mammal	Ind	Ind	Ind	Ind	9	2.1
446	02929.01	Lg Mammal	Ind	Rib	Ind	Ind	4	4.6
447	02929.02	Ind Mammal	Ind	Cranium	Ind	Ind	1	1
448	02929.03	Med Mammal	Ind	Limb bone	Ind	Ind	3	4.1
449	02929.04	Med Mammal	Ind	Ind vert	Ind	Ind	6	5
450	02929.05	Ind Mammal	Ind	Ind	Ind	Ind	63	18.9
451	00613.01	Ovis aries/Capra hircus	Ind	Rib	Ind	Adult	1	3.5
452	00613.02	Ovis aries/Capra hircus	Ind	Carpal	Ind	Adult	1	1.3

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
453	00613.03	Ovis aries/Capra hircus	Ind	Processus cornus	Ind	Adult	1	2.6
454	00613.04	Ovis aries/Capra hircus	Ind	Premolar	Ind	Adult	1	1.2
455	00613.05	Citellus beecheyi	R	Lower incisor	Ind	Adult	1	0.1
456	00613.06	Sm Mammal	Ind	Cranium	Ind	Ind	2	0.6
457	00613.07	Sm Mammal	Ind	Limb bone	Ind	Ind	2	0.5
458	00613.08	Med Mammal	Ind	Limb bone	Ind	Ind	5	12.7
459	00613.09	Ind Mammal	Ind	Rib	Ind	Ind	2	2.4
460	00613.10	Ind Mammal	Ind	Ind vert	Ind	Ind	4	4.5
461	00613.11	Med Mammal	Ind	Cranium	Ind	Ind	2	1.9
462	00613.12	Ind Mammal	Ind	Ind	Ind	Ind	40	9
463	02919.01	Bos taurus	Axial	Ind vert	Ind	Adult	1	7.9
464	02919.02	Lg Mammal	Ind	Ind vert	Ind	Ind	4	7.3
465	02930.01	Ovis aries/Capra hircus	Ind	Rib	Ind	Adult	1	2.5
466	02930.02	Ind Mammal	Ind	Ind	Ind	Ind	24	8.6
467	02921.01	Ovis aries/Capra hircus	Axial	Sacrum	F	Adult	1	5.4
468	02921.02	Ovis aries/Capra hircus	Axial	Sacrum	Ind	Adult	1	0.7
469	02921.02	Med Mammal	Ind	Rib	Ind	Ind	2	0.6
470	02925.01	Gallus gallus	R	Humerus	FF	Adult	1	0.2
471	02925.02	Med Bird	Ind	Limb bone	Ind	Ind	1	0.2
472	02925.03	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.3
473	02925.04	Sm Mammal	Ind	Patella	Ind	Adult	1	0.5
474	02925.05	Ind Mammal	Ind	Rib	Ind	Ind	1	1.3
475	02925.06	Med Mammal	Ind	Ind vert	Ind	Ind	2	0.5
476	02925.07	Ind Mammal	Ind	Ind	Ind	Ind	8	2.5
								0
s42e6								0
477	02443.01	Ind Mammal	Ind	Ind	Ind	Ind	2	0.5
								0
s42e10								0
478	01273.01	Phasianidae	L	Carpometacarpus	F	Adult	1	0.2
479	01273.02	Bos taurus	Ind	Rib	F	Adult	1	20.3
480	01273.03	Bos taurus	Ind	Rib	Ind	Adult	1	2.5

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
481	01273.04	Bos taurus	Ind	Rib	Ind	Adult	1	0.8
482	01273.05	Bos taurus	Ind	Rib	Ind	Adult	1	1.4
483	01273.06	Bos taurus	Ind	Rib	Ind	Adult	1	1.4
484	01273.07	Ind Mammal	Ind	Ind	Ind	Ind	8	7.7
485	01281.01	Sus scrofa	L	Femur	Ind	Adult	1	14.3
486	01283.01	Bos taurus	Axial	Cervical vert	Ind	Adult	1	6.6
487	01283.02	Lg Mammal	Ind	Ind vert	Ind	Ind	7	3.1
488	01274.01	Bos taurus	Axial	Ind vert	F	Adult	1	4.2
489	01276.01	Ind Mammal	Ind	Ind	Ind	Ind	1	1.4
490	01277.01	Ind Mammal	Ind	Ind	Ind	Ind	16	7
491	01277.02	Sm Mammal	Ind	Limb bone	Ind	Ind	2	1.5
492	01278.01	Bos taurus	R	Upper premolar 1	Ind	Adult	1	1.6
493	01286.01	Ind Mammal	Ind	Ind	Ind	Ind	2	2.5
494	01286.01	Ind Mammal	Ind	Ind	Ind	Ind	1	0
495	01272.01	Ind Fish	Axial	Caudal vert	Ind	Adult	1	0.5
496	01275.01	Med Mammal	Ind	Cranium	Ind	Ind	1	0.5
497	01284.01	Sm Mammal	Ind	Limb bone	Ind	Ind	2	20
498	01282.01	Bos taurus	Ind	Rib	Ind	Adult	1	2.9
499	01282.02	Ovis aries/Capra hircus	Ind	Tibia	Ind	Adult	1	6.3
500	01282.03	Ovis aries/Capra hircus	Ind	Processus cornus	Ind	Adult	1	1.2
501	01282.04	Lg Mammal	Ind	Limb bone	Ind	Ind	1	5.1
502	01282.05	Ind Mammal	Ind	Ind	Ind	Ind	19	6.8
								0
s42e12								0
503	01339.01	Ind Mammal	Ind	Ind	Ind	Ind	4	3.8
504	01339.02	Med Mammal	Ind	Limb bone	Ind	Ind	1	1.8
505	01341.03	Ind Mammal	Ind	Ind	Ind	Ind	3	1.3
506	01333.01	Lg Mammal	Ind	Limb bone	Ind	Ind	2	5.7
507	01333.02	Lg Mammal	Ind	Ind vert	Ind	Ind	2	3.8
508	01333.03	Ind Mammal	Ind	Ind	Ind	Ind	5	3
509	01338.01	Bos taurus	Axial	Ind vert	Unf	Adult	1	5.3
510	01338.02	Med Mammal	Ind	Ind vert	Ind	Ind	1	0.7

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
511	01338.03	Ind Mammal	Ind	Ind	Ind	Ind	4	4.6
512	01348.01	Ind Mammal	Ind	Ind	Ind	Ind	3	3.6
513	01344.01	Ind Mammal	Ind	Ind	Ind	Ind	1	0.2
514	01342.01	Ind Mammal	Ind	Ind	Ind	Ind	1	1.1
515	01335.01	Meleagris Gallopavo	Ind	Tibiotarsus	Ind	Adult	1	3.1
516	01335.02	Ovis aries/Capra hircus	Ind	Scapula	F	Adult	1	1.5
517	01335.03	Ovis aries/Capra hircus	Ind	Rib	Ind	Adult	1	1.2
518	01335.04	Ind Mammal	Ind	Ind	Ind	Ind	5	5.1
519	00113.01	Lg Mammal	Ind	Rib	Ind	Ind	27	11.3
520	01340.01	Rat spp.	R	Innominate	F	Adult	1	0.2
521	01340.02	Ind Mammal	Ind	Ind	Ind	Ind	9	2
522	01332.01	Ind Mammal	Ind	Ind	Ind	Ind	4	4.9
523	01343.01	Ind Mammal	Ind	Ind	Ind	Ind	4	3.4
524	01347.01	Ovis aries/Capra hircus	Ind	Rib	Ind	Adult	1	4
525	01347.02	Ovis aries/Capra hircus	Ind	Rib	Ind	Adult	1	4.4
526	01347.03	Bos taurus	Axial	Thoracic vert	Ind	Adult	1	6.9
527	01347.04	Ind Mammal	Ind	Ind	Ind	Ind	18	7.4
528	01347.05	Rat spp.	R	Mandible	F	Adult	1	0.1
529	000238.01	Bos taurus	L	Lower premolar 1	Ind	Adult	1	9.5
530	01346.01	Bos taurus	Ind	Rib	Ind	Adult	1	5
531	01337.01	Ind Mammal	Ind	Ind	Ind	Ind	16	7.3
532	01345.01	Lg Mammal	Ind	Limb bone	Ind	Ind	2	7.7
533	01345.02	Ind Mammal	Ind	Ind	Ind	Ind	3	1.8
534	01349.01	Ovis aries/Capra hircus	R	Tibia	Ul	Adult	1	10
535	01349.02	Bos taurus	Ind	Main metatarsal	Ind	Adult	1	16.8
536	01336.01	Phasianidae	L	Scapula	F	Adult	1	0.1
537	01336.02	Phasianidae	L	Carpometacarpus	F	Adult	1	0.3
538	01336.03	Ind Bird	Ind	Limb bone	Ind	Ind	1	0.5
539	01336.04	Med Mammal	Axial	Ind vert	Unf	Adult	1	2.8
540	01336.05	Med Mammal	Ind	Rib	Ind	Ind	7	12.3
541	01336.06	Lg Mammal	Ind	Ind vert	Ind	Ind	6	13.2
542	01336.07	Ind Mammal	Ind	Ind	Ind	Ind	3	1.7

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UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
543	01334.01	Lg Mammal	Ind	Rib	Ind	Ind	9	10.1
544	01334.05	Med Mammal	Ind	Sphenoid	Ind	Ind	1	0.4
545	01334.02	Lg Mammal	Ind	Ind vert	Ind	Ind	1	2.5
546	01334.03	Ind Mammal	Ind	Ind	Ind	Ind	15	10.4
547	01334.04	Bos taurus	R	Mandible	F	Adult	1	7.3
								0
s42e14								0
548	00728.01	Bos taurus	Ind	Rib	Ind	Adult	1	27.8
549	00735.01	Bos taurus	Ind	Carpal or tarsal	Ind	Adult	1	18.4
550	00735.02	Bos taurus	Ind	Third phalanx indeterminate	F	Adult	1	17
551	00735.03	Bos taurus	Ind	Second phalanx indeterminate	F	Adult	1	14.3
552	00735.04	Bos taurus	Ind	First phalanx indeterminate	F	Adult	1	24
553	00735.05	Bos taurus	Ind	Sesamoid	F	Adult	1	2
554	00735.06	Bos taurus	Ind	Sesamoid	F	Adult	1	2.4
555	00735.07	Bos taurus	Ind	Sesamoid	F	Adult	1	2.9
556	00735.08	Lg Mammal	Ind	Ind	Ind	Ind	1	0.9
557	00733.01	Bos taurus	Ind	Carpal or tarsal	G	Adult	1	63
558	00733.01	Lg Mammal	Ind	Ind	Ind	Ind	2	1.5
559	01144.01	Bos taurus	L	Humerus	IF	Adult	1	67.8
560	01144.02	Lg Mammal	Ind	Ind	Ind	Ind	1	1
561	00747.01	Bos taurus	L	Scapula	F	Adult	1	22.8
562	00747.02	Bos taurus	L	Scapula	F	Adult	1	6.4
563	00747.03	Lg Mammal	Ind	Ind	Ind	Ind	12	19.2
564	01154.01	Bos taurus	Axial	Thoracic vert	G	Adult	1	10.3
565	00743.01	Bos taurus	Ind	Rib	Ind	Adult	1	3.2
566	00743.02	Lg Mammal	Ind	Rib	Ind	Ind	2	1.2
567	00743.03	Lg Mammal	Ind	Ind vert	Ind	Ind	8	6.6
568	00743.04	Lg Mammal	Ind	Ind	Ind	Ind	57	19.9
569	00741.01	Bos taurus	Ind	Rib	Ind	Adult	1	7.2
570	00741.02	Bos taurus	Ind	Rib	Ind	Adult	1	3.4
571	00741.03	Bos taurus	Ind	Rib	Ind	Adult	1	1.5
572	00741.04	Lg Mammal	Ind	Rib	Ind	Ind	4	5.1

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
573	00741.05	Lg Mammal	Ind	Ind	Ind	Ind	37	27.2
574	00745.01	Bos taurus	Ind	Rib	Ind	Adult	1	3.7
575	00745.02	Lg Mammal	Ind	Rib	Ind	Ind	6	1.3
576	00388.01	Ovis aries/Capra hircus	Ind	Processus cornus	Ind	Adult	1	1
577	00388.02	Ind Mammal	Ind	Ind	Ind	Ind	22	6.1
578	00744.01	Bos taurus	Ind	Rib	Ind	Ind	7	18.6
579	0744.02	Lg Mammal	Ind	Rib	Ind	Ind	12	3.5
580	00742.01	Bos taurus	Ind	Rib	Ind	Adult	1	4.7
581	00742.02	Bos taurus	Ind	Rib	Ind	Adult	1	1.2
582	00742.03	Bos taurus	Ind	Rib	Ind	Adult	1	3.9
583	00742.04	Lg Mammal	Ind	Rib	Ind	Ind	16	3.5
584	00746.01	Ind Mammal	Ind	Ind	Ind	Ind	24	6.1
585	00732.01	Ind Mammal	Ind	Limb bone	Ind	Ind	1	3.7
586	00737.01	Ind Mammal	Ind	Ind	Ind	Ind	19	2.1
587	00740.01	Ind Mammal	Ind	Ind	Ind	Ind	2	2.2
588	00729.01	Bos taurus	Ind	Rib	Ind	Adult	1	4.8
589	00729.02	Med Mammal	Ind	Cranium	Ind	Ind	1	0.4
590	00729.03	Ind Mammal	Ind	Ind	Ind	Ind	16	3.9
591	00729.04	Bos taurus	Ind	Fibula	F	Adult	1	2.4
592	00731.01	Ind Mammal	Ind	Ind	Ind	Ind	10	4.9
593	00730.01	Lg Mammal	Ind	Cranium	Ind	Ind	38	26.1
594	00748.01	Lg Mammal	Ind	Ind vert	Ind	Ind	4	10.6
595	00748.02	Lg Mammal	Ind	Cranium	Ind	Ind	3	10.8
596	00748.03	Lg Mammal	Ind	Limb bone	Ind	Ind	1	1.2
597	00748.04	Med Mammal	Ind	Limb bone	Ind	Ind	3	2
598	00748.05	Bos taurus	Ind	Third phalanx indeterminate	F	Adult	1	11.7
599	00748.06	Ind Mammal	Ind	Ind	Ind	Ind	28	21.9
600	00738.01	Med Mammal	Ind	Cranium	Ind	Ind	1	0.3
601	00739.01	Bos taurus	Ind	Molar	Ind	Adult	1	6.7
602	01134.01	Bos taurus	R	Humerus	IF	Adult	1	23
603	01133.01	Bos taurus	Ind	Sesamoid	F	Adult	1	5.9
604	00736.01	Bos taurus	Axial	Axis	Ind	Adult	1	6

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
605	00736.02	Bos taurus	Axial	Ind vert	Unf	Adult	1	10.9
606	00736.03	Bos taurus	Axial	Ind vert	Unf	Adult	1	1
607	00736.04	Bos taurus	Ind	Ind vert	Ind	Ind	9	20.5
608	01150.01	Bos taurus	R	Humerus	IF	Adult	1	147.9
609	01150.02	Bos taurus	R	Humerus	Ind	Adult	1	29.1
610	01150.03	Bos taurus	R	Humerus	Ind	Adult	1	18.6
611	01150.04	Bos taurus	R	Humerus	Ind	Adult	1	4.1
612	01150.05	Bos taurus	Ind	Third phalanx indeterminate	F	Adult	1	9.3
613	01150.06	Lg Mammal	Ind	Limb bone	Ind	Ind	18	20.3
614	00609.01	Bos taurus	Ind	Femur	IF	Adult	1	39.2
615	00609.02	Bos taurus	Ind	Femur	IF	Adult	1	28.1
616	00609.03	Bos taurus	Ind	Main metatarsal	Ind	Adult	1	14.5
617	00609.04	Bos taurus	Ind	Third phalanx indeterminate	F	Adult	1	11.6
618	00609.05	Bos taurus	Ind	First phalanx indeterminate	Ind	Adult	1	11.2
619	00609.06	Bos taurus	Ind	Second phalanx indeterminate	Ind	Adult	1	2.3
620	00609.07	Bos taurus	Ind	Second phalanx indeterminate	F	Adult	1	5.7
621	00609.08	Bos taurus	Ind	Third phalanx indeterminate	F	Adult	1	3.8
622	00609.09	Bos taurus	Ind	Third phalanx indeterminate	F	Adult	1	7.9
623	00609.10	Lg Mammal	Ind	Limb bone	Ind	Ind	9	94.3
624	00609.11	Lg Mammal	Ind	Ind	Ind	Ind	19	43.3
625	00341.01	Bos taurus	Ind	Rib	Ind	Adult	1	6.5
626	00341.02	Bos taurus	Ind	Rib	Ind	Adult	1	3.5
627	00341.03	Bos taurus	Ind	Rib	Ind	Adult	1	3
628	00341.04	Lg Mammal	Ind	Ind vert	Ind	Ind	10	31.4
629	00341.05	Lg Mammal	Ind	Limb bone	Ind	Ind	4	22.2
630	00341.06	Ind Mammal	Ind	Rib	Ind	Ind	4	3.6
631	00341.07	Sm Mammal	Ind	Limb bone	Ind	Ind	2	3.4
632	00341.08	Ind Mammal	Ind	Ind	Ind	Ind	52	42.1
633	00731.01	Citellus beecheyi	R	Humerus	IF	Adult	1	0.3
								0
Feature 4								0
634	f4.01	Bos taurus	Ind	Rib	Ind	Adult	1	6.3

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
635	f4.02	Bos taurus	Ind	Rib	Ind	Adult	1	6
636	f4.03	Bos taurus	Axial	Lumbar vert	Ind	Adult	1	10.4
637	f4.04	Bos taurus	Axial	Ind vert	Unf	Adult	1	4.3
638	f4.05	Med Mammal	Ind	Cranium	Ind	Ind	1	0.5
639	f4.06	Lg Mammal	Ind	Ind vert	Ind	Ind	8	22.7
640	f4.07	Lg Mammal	Ind	Rib	Ind	Ind	5	10.2
641	f4.08	Sm Mammal	Axial	Cervical vert	F	Adult	1	0.9
642	f4.09	Sm Mammal	Axial	Caudal vert	F	Adult	1	1.3
643	f4.10	Ind Mammal	Ind	Ind	Ind	Ind	137	85.8
								0
s42e16								0
644	01311.01	Bos taurus	Ind	Main metatarsal	Unf	Adult	1	172.8
645	01321.01	Bos taurus	Ind	Rib	Ind	Adult	1	24
646	01328.01	Lg Mammal	Ind	Limb bone	Ind	Ind	1	7.1
647	01314.01	Ind Mammal	Ind	Cranium	Ind	Ind	9	4.9
648	01317.01	Bos taurus	R	Tibia	Ind	Adult	1	94
649	01317.02	Bos taurus	Axial	Ind vert	Ind	Adult	1	9.3
650	01317.03	Bos taurus	Axial	Ind vert	Ind	Adult	1	7.4
651	01317.04	Bos taurus	Axial	Ind vert	Ind	Adult	1	2.7
652	01317.05	Bos taurus	Ind	Rib	Ind	Adult	1	1.1
653	01317.06	Bos taurus	Ind	Rib	Ind	Adult	1	3.7
654	01317.07	Bos taurus	Ind	Rib	Ind	Adult	1	10.7
655	01317.08	Bos taurus	Ind	Rib	Ind	Adult	1	7.7
656	01317.09	Bos taurus	Ind	Rib	Ind	Adult	1	18.1
657	01317.10	Bos taurus	Ind	Rib	Ind	Adult	1	12
658	01317.11	Bos taurus	Ind	Rib	Ind	Adult	1	13
659	01317.12	Bos taurus	Ind	Rib	Ind	Adult	1	7.1
660	01317.13	Bos taurus	Ind	Rib	Ind	Adult	1	12.8
661	01317.14	Bos taurus	Ind	Rib	Ind	Adult	1	5.4
662	01317.15	Bos taurus	Ind	Rib	Ind	Adult	1	6.9
663	01317.16	Bos taurus	Ind	Rib	Ind	Adult	1	3.5
664	01317.17	Bos taurus	Ind	Rib	Ind	Adult	1	2.3

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
665	01317.18	Bos taurus	Ind	Rib	Ind	Adult	1	1.5
666	01317.19	Lg Mammal	Ind	Rib	Ind	Ind	43	63.4
667	01317.20	Lg Mammal	Ind	Ind vert	Ind	Ind	10	17.8
668	01317.21	Ind Mammal	Ind	Ind	Ind	Ind	88	100.5
669	01316.01	Bos taurus	Ind	Astragalus	F	Adult	1	49.4
670	01316.02	Bos taurus	Ind	Rib	Ind	Adult	1	6.5
671	01316.03	Ind Mammal	Ind	Ind	Ind	Ind	22	16.7
672	01326.01	Ind Mammal	Ind	Ind	Ind	Ind	1	1.8
673	01320.01	Ind Mammal	Ind	Ind	Ind	Ind	2	0.6
674	01329.01	Ind Mammal	Ind	Ind	Ind	Ind	13	4.8
675	01324.01	Ind Mammal	Ind	Ind	Ind	Ind	7	0.5
676	01319.01	Ind Mammal	Ind	Ind	Ind	Ind	10	10.3
677	01319.02	Bos taurus	Ind	Ind tooth	Ind	Adult	2	4.9
678	01323.01	Bos taurus	Ind	Rib	Ind	Adult	1	3.8
679	01323.02	Ind Mammal	Ind	Ind	Ind	Ind	2	1.5
680	01373.03	Gallus gallus	Ind	Femur	Ind	Adult	1	0.6
681	01309.01	Procyon lotor	Ind	Metapodial	F	Adult	1	0.2
682	01309.02	Procyon lotor	Ind	Metapodial	F	Adult	1	0.1
683	01309.03	Procyon lotor	Ind	Metapodial	F	Adult	1	0.1
684	01309.04	Ovis aries/Capra hircus	Ind	Carpal or tarsal	FI	Adult	1	2.4
685	01309.05	Ind Mammal	Ind	Ind	Ind	Ind	20	3.7
686	01315.01	Lg Mammal	Ind	Ind	Ind	Ind	4	16.1
687	01318.01	Bos taurus	Ind	Second phalanx indeterminate	Ind	Adult	1	9.9
688	01318.02	Lg Mammal	Ind	Ind vert	Ind	Ind	6	23.6
689	01318.03	Ind Mammal	Ind	Ind	Ind	Ind	7	0.9
690	01318.04	Ind Mammal	Ind	Ind	Ind	Ind	1	0.7
691	01325.01	Lg Mammal	Ind	Rib	Ind	Ind	38	13.1
692	01352.02	Gallus gallus	L	Scapula	F	Adult	1	0.3
693	01310.01	Lg Mammal	Ind	Ind	Ind	Ind	4	13.1
694	01554.01	Ind Mammal	Ind	Ind	Ind	Ind	1	2.6
695	01327.01	Bos taurus	Ind	Rib	Ind	Ind	1	2.8
696	01327.02	Ind Mammal	Ind	Ind	Ind	Ind	3	4.1

-COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
697	01327.03	Gallus gallus	Ind	Tarsometatarsus	Ind	Adult	1	0.9
698	01430.01	Bos taurus	Ind	Ind tooth	Ind	Adult	1	4.1
699	01330.01	Ovis aries/Capra hircus	Ind	Phalanx	F	Adult	1	6
700	01330.02	Lg Mammal	Ind	Cranium	Ind	Ind	1	2.2
701	01330.03	Lg Mammal	Ind	Ind vert	Ind	Ind	19	45.8
702	01330.04	Lg Mammal	Ind	Rib	Ind	Ind	27	37.7
703	01330.05	Ind Mammal	Ind	Ind	Ind	Ind	300	157.6
704	01331.01	Bos taurus	Ind	Rib	Ind	Adult	1	3.8
705	01331.02	Bos taurus	Ind	Rib	Ind	Adult	1	3.7
706	01331.03	Bos taurus	Ind	Rib	Ind	Adult	1	2.1
707	01331.04	Mephitis mephitis	Ind	Fibula	F	Adult	1	0.4
708	01331.05	Lg Mammal	Ind	Ind vert	Ind	Ind	3	10.1
709	01331.06	Ind Mammal	Ind	Rib	Ind	Ind	10	18.2
710	01331.07	Ind Mammal	Ind	Ind	Ind	Ind	99	72.1
								0
s44e14								0
711	00700.01	Bos taurus	Ind	Carpal or tarsal	IF	Adult	1	72.2
712	01139.01	Lg Mammal	Ind	Limb bone	Ind	Ind	5	30.9
713	01141.01	Bos taurus	Ind	Main metatarsal	IF	Adult	1	36.9
714	01141.02	Bos taurus	Ind	Main metatarsal	FI	Adult	1	45
715	01141.03	Bos taurus	Ind	First phalanx indeterminate	F	Adult	1	23.1
716	01141.04	Bos taurus	Ind	Second phalanx indeterminate	F	Adult	1	12.7
717	01141.05	Bos taurus	Ind	Third phalanx indeterminate	F	Adult	1	13.3
718	01441.06	Bos taurus	Ind	Sesamoid	F	Adult	1	2.4
719	01141.07	Bos taurus	Ind	Limb bone	Ind	Ind	21	37.2
720	00274.01	Ind Mammal	Ind	Ind	Ind	Ind	1	0.3
721	01308.01	Bos taurus	Ind	Main metacarpal	Ind	Adult	1	50.8
722	01308.02	Bos taurus	Axial	Ind vert	Unf	Adult	1	3
723	01308.03	Lg Mammal	Ind	Rib	Ind	Ind	3	4.5
724	01308.04	Lg Mammal	Ind	Ind vert	Ind	Ind	3	3.9
725	01308.05	Ind Mammal	Ind	Ind	Ind	Ind	25	14.2
726	01308.06	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.2

COURTYARD AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
727	01304.01	Ovis aries/Capra hircus	R	Astragalus	F	Adult	1	5
728	01304.02	Ovis aries/Capra hircus	R	Second phalanx indeterminate	Ind	Adult	1	1.4
729	01304.03	Ovis aries/Capra hircus	Axial	Thoracic vert	Ind	Adult	1	2
730	01304.04	Ovis aries/Capra hircus	R	Second phalanx indeterminate	F	Adult	1	1
731	01304.05	Med Mammal	Ind	Ind vert	Ind	Ind	5	9.8
732	01304.06	Lg Mammal	Ind	Rib	Ind	Ind	1	3.1
733	01307.01	Gallus gallus	Axial	Cervical vert	F	Adult	1	0.6
734	01307.02	Bos taurus	Ind	Rib	Ind	Adult	1	4
735	01307.03	Ovis aries/Capra hircus	Axial	Ind vert	Unf	Adult	1	0.5
736	01307.04	Bird/small mammal	Ind	Ind vert	Ind	Ind	1	0.6
737	01307.05	Lg Mammal	Ind	Rib	Ind	Ind	5	13
738	01307.06	Ind Mammal	Ind	Ind	Ind	Ind	69	23.4
739	01305.01	Ind Mammal	Ind	Limb bone	Ind	Ind	18	23.2
740	01305.02	Ind Mammal	Ind	Ind vert	Ind	Ind	13	24.4
741	01305.03	Ind Mammal	Ind	Rib	Ind	Ind	5	5.8
742	01305.04	Med Mammal	Ind	Sphenoid	Ind	Ind	1	5.5
743	01305.05	Ovis aries/Capra hircus	Axial	Lumbar vert	F	Adult	1	2.7
744	01305.06	Ind Mammal	Ind	Ind	Ind	Ind	378	151.29
							5409	0

APPENDIX B
NEOPHYTE HOUSING AREA
Faunal Spreadsheets

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
P-989-2								
001	989-2	Bos taurus	R	Tibia	Ind	Adult	1	19.8
002	989-2	Bos taurus	R	Tibia	Ind	Adult	1	29.8
003	989-2	Bos taurus	Ind	Femur	Unf	Subadult	1	23.6
004	989-2	Bos taurus	Ind	Rib	Ind	Adult	3	39.6
005	989-2	Bos taurus	Ind	Rib	Ind	Adult	2	13.3
006	989-2	Bos taurus	Ind	Rib	F	Adult	1	17.8
007	989-2	Bos taurus	Ind	Rib	Ind	Adult	1	2.5
008	989-2	Bos taurus	Ind	Ind vert	Ind	Adult	1	1.1
009	989-2	Lg Mammal	Ind	Ind	Ind	Ind	2	15.5
010	989-2	Ind Mammal	Ind	Ind	Ind	Ind	3	5.6
011	989-2	Ovis aries	R	Calcaneus	G	Adult	1	5.1
012	989-2	Ovis aries	R	Astragalus	F	Adult	1	5.1
013	989-2	Ovis aries	R	Fourth tarsal	F	Adult	1	2.8
014	989-2	Ovis aries	R	Central tarsal	F	Adult	1	2.8
015	989-2	Ovis aries	R	Atlas	F	Adult	1	2.3
016	989-2	Ovis aries	L	Atlas	F	Adult	1	2.8
017	989-2	Lg Mammal	Ind	Ind	F	Adult	1	15.8
018	989-2	Bos taurus	Ind	Tibia	Ind	Adult	1	10.1
019	989-2	Lg Mammal	Ind	Rib	Ind	Adult	1	7.7
020	989-2	Med Mammal	Ind	Tarsal	F	Adult	3	1.9
021	989-2	Med Mammal	Ind	Ind	Ind	Ind	7	4.6
022	989-2	Lg Mammal	Ind	Ind	Ind	Ind	9	25.7
023	989-2	Citellus beecheyi	L	Mandible	F	Adult	1	0.7
024	989-2	Citellus beecheyi	L	Radius	F	Adult	1	0.2
025	989-2	Citellus beecheyi	Ind	Incisor	Ind	Adult	1	0.1
026	989-2	Citellus beecheyi	Ind	Ind tooth	Ind	Ind	1	0.1
027	989-2	Citellus beecheyi	Ind	Sacrum	F	Adult	1	0.3
028	989-2	Citellus beecheyi	Ind	Lumbar vert	F	Adult	1	0.2
029	989-2	Citellus beecheyi	Ind	Caudal vert	F	Adult	1	0.2
030	989-2	Citellus beecheyi	Ind	Caudal vert	F	Adult	1	0.1

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
031	989-2	Citellus beecheyi	Ind	Phalanx	F	Adult	2	0.1
032	989-2	Peromyscus spp.	L	Mandible	F	Adult	1	0.1
033	989-2	Peromyscus spp.	Ind	Incisor	Ind	Adult	1	0.1
034	989-2	Peromyscus spp.	Ind	Ind tooth	Ind	Adult	1	0.1
035	989-2	Sciurus spp.	Ind	Rib	F	Adult	1	0.1
036	989-2	Rodentia	Ind	Phalanx	F	Adult	1	0.1
037	989-2	Bos taurus	Ind	Rib	Ind	Adult	1	2.4
038	989-2	Med Mammal	Ind	Ind vert	Ind	Adult	1	0.7
039	989-2	Med Mammal	Ind	Tibia	G	Subadult	1	0.6
040	989-2	Med Mammal	Ind	Phalanx	F	Adult	1	0.2
041	989-2	Duck spp.	Ind	Tibiotarsus	F	Adult	1	0.4
042	989-2	Aves, Wild Bird	Ind	Ind	Ind	Ind	1	0.4
043	989-2	Med Mammal	Ind	Ind vert	Ind	Ind	3	1.4
044	989-2	Ind Mammal	Ind	Ind	Ind	Ind	6	2.5
045	989-2	Lg Mammal	Ind	Ind	Ind	Ind	1	1.4
P-989-1								
046	989-1	Bos taurus	L	Humerus	Ind	Adult	1	67.3
047	989-1	Bos taurus	Ind	Humerus	Ind	Adult	1	11.7
048	989-1	Bos taurus	Ind	Tibia	Ind	Adult	1	16.4
049	989-1	Bos taurus	Ind	Main metatarsal	Ind	Adult	1	52.8
050	989-1	Bos taurus	Ind	Main metatarsal	Ind	Adult	1	10.5
051	989-1	Bos taurus	Ind	Tarsal	Ind	Adult	1	14.7
052	989-1	Bos taurus	Ind	Scapula	Ind	Adult	1	8.2
053	989-1	Ovis aries	Ind	Caudal vert	Ind	Adult	1	5.8
054	989-1	Ind Mammal	Ind	Ind	Ind	Ind	1	5.5
055	989-1	Bos taurus	Ind	Rib	Ind	Adult	60	272.7
056	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	42.9
057	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	35.7
058	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	31
059	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	15
060	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	9.4

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
061	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	23.2
062	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	13.8
063	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	2.5
064	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	3.3
065	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	5.7
066	989-1	Bos taurus	Ind	Rib	F	Adult	1	21.1
067	989-1	Bos taurus	Ind	Rib	F	Adult	1	18.8
068	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	14.4
069	989-1	Bos taurus	Ind	Rib	Ind	Adult	3	10.5
070	989-1	Lg Mammal	Ind	Ind	Ind	Adult	1	7.1
071	989-1	Ind Mammal	Ind	Ind	Ind	Ind	2	2.6
072	989-1	Bos taurus	R	Mandible	Ind	Adult	1	36.3
073	989-1	Bos taurus	R	Humerus	G	Adult	1	19.1
074	989-1	Bos taurus	Ind	Antler	G	Adult	1	10
075	989-1	Bos taurus	Ind	Phalanx	Ind	Adult	1	11.4
076	989-1	Bos taurus	Ind	Ind vert	Ind	Ind	1	4.2
077	989-1	Bos taurus	Axial	Ind vert	Unf	Adult	4	9.5
078	989-1	Bos taurus	Axial	Ind vert	G	Adult	2	8
079	989-1	Bos taurus	Axial	Ind vert	F	Adult	1	12.9
080	989-1	Bos taurus	Axial	Ind vert	Ind	Adult	4	46.2
081	989-1	Bos taurus	Ind	Ind vert	Ind	Ind	11	42.4
082	989-1	Thomomys bottae	L	Mandible	F	Adult	2	1
083	989-1	Thomomys bottae	L	Tibia	F	Adult	1	0.2
084	989-1	Citellus beecheyi	R	Mandible	F	Adult	1	0.9
085	989-1	Citellus beecheyi	R	Maxilla	Ind	Adult	1	0.5
086	989-1	Citellus beecheyi	R	Humerus	F	Adult	1	0.9
087	989-1	Citellus beecheyi	L	Humerus	F	Adult	1	0.7
088	989-1	Citellus beecheyi	R	Radius	F	Adult	1	0.2
089	989-1	Citellus beecheyi	L	Innominate	F	Adult	1	0.5
090	989-1	Citellus beecheyi	L	Femur	F	Adult	1	0.9
091	989-1	Citellus beecheyi	L	Humerus	F	Adult	1	0.5
092	989-1	Citellus beecheyi	L	Tibia	F	Adult	1	0.3

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
093	989-1	Citellus beecheyi	R	Tibia	F	Adult	1	0.3
094	989-1	Citellus beecheyi	L	Scapula	Ind	Adult	1	0.2
095	989-1	Citellus beecheyi	Axial	Innominate	F	Adult	1	0.2
096	989-1	Canis spp.	L	Mandible	Ind	Adult	1	8.5
097	989-1	Canis spp.	R	Mandible	Ind	Adult	1	1.6
098	989-1	Canis spp.	Axial	Ind vert	Ind	Adult	3	2
099	989-1	Canis spp.	Ind	Patella	Ind	Adult	1	0.2
100	989-1	Canis spp.	R	Tibia	IG	Adult	1	3
101	989-1	Canis spp.	R	Femur	GI	Adult	1	4.7
102	989-1	Canis spp.	Ind	Metapodial	FG	Adult	1	0.6
103	989-1	Canis spp.	Ind	Metapodial	IG	Adult	1	0.4
104	989-1	Canis spp.	R	Humerus	Ind	Adult	1	1.6
105	989-1	Canis spp.	L	Innominate	F	Adult	1	1.1
106	989-1	Canis spp.	L	Innominate	F	Adult	1	2
107	989-1	Canis spp.	R	Calcaneus	G	Adult	1	1.3
108	989-1	Canis spp.	Ind	Astragalus	F	Adult	2	1
109	989-1	Canis spp.	Ind	Innominate	G	Adult	1	1.4
110	989-1	Canis spp.	Ind	Femur	GI	Adult	1	2
111	989-1	Canis spp.	Ind	Ind	G	Adult	1	1.4
112	989-1	Canis spp.	Ind	Ind	Ind	Ind	3	1.4
113	989-1	Bos taurus	Ind	Rib	F	Adult	2	5.2
114	989-1	Bos taurus	L	Calcaneus	F	Adult	1	2.9
115	989-1	Bos taurus	Ind	Phalanx	F	Adult	1	1.4
116	989-1	Bos taurus	Ind	Metacarpal, unknown	Unf	Adult	1	1.3
117	989-1	Bos taurus	L	Tibia	IG	Adult	1	2.4
118	989-1	Bos taurus	Axial	Cervical vert	G	Adult	1	3.1
119	989-1	Bos taurus	Axial	Cervical vert	Ind	Adult	1	2.1
120	989-1	Bos taurus	Axial	Ind vert	F	Adult	1	1.9
121	989-1	Bos taurus	Ind	Cranium	Ind	Ind	1	1.4
122	989-1	Bos taurus	Ind	Rib	Ind	Adult	1	3.5
123	989-1	Med Mammal	Ind	Ind	Ind	Ind	3	5.1
124	989-1	Sm Mammal	Ind	Radius	GI	Adult	1	0.8

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
125	989-1	Med Mammal	Ind	Rib	GG	Adult	1	0.5
126	989-1	Bos taurus	Ind	Ind	Ind	Ind	4	10.4
127	989-1	Bos taurus	Ind	Antler	Ind	Ind	1	0.8
128	989-1	Bos taurus	Axial	Ind vert	Ind	Adult	1	1.5
129	989-1	Bos taurus	Ind	Rib	Ind	Adult	5	7.8
130	989-1	Bos taurus	Axial	Ind vert	Unf	Adult	1	0.6
131	989-1	Bos taurus	Ind	Cranium	Ind	Ind	1	0.8
132	989-1	Bos taurus	Ind	Occipital	Ind	Ind	1	0.6
133	989-1	Bos taurus	Ind	Ind	Ind	Ind	1	1
134	989-1	Bos taurus	Ind	Phalanx	Ind	Adult	1	0.3
135	989-1	Canis spp.	Ind	Rib	G	Adult	4	1.2
136	989-1	Canis spp.	Ind	Rib	Ind	Ind	10	2.5
137	989-1	Canis spp.	Axial	Ind vert	G	Adult	2	0.5
138	989-1	Canis spp.	Axial	Ind vert	Ind	Ind	4	0.9
139	989-1	Canis spp.	Axial	Ind vert	Und	Adult	1	0.1
140	989-1	Canis spp.	Ind	Carpal or tarsal	GG	Adult	7	2.5
141	989-1	Ind Mammal	Ind	Ind	Ind	Ind	3	1.9
142	989-1	Odocoileus hemionus	Ind	Hyoid	F	Adult	1	1
143	989-1	Odocoileus hemionus	Ind	Hyoid	Ind	Adult	1	0.3
144	989-1	Gallus gallus	R	Humerus	IG	Adult	1	0.9
145	989-1	Gallus gallus	Ind	Ind	Ind	Ind	1	0.3
146	989-1	Ind Mammal	Ind	Ind	Ind	Ind	125	59.3
147	989-1	Med Mammal	Ind	Rib	Ind	Ind	9	7.3
148	989-1	Rodentia	Ind	Incisor	Ind	Adult	1	0.1
149	989-1	Med Mammal	Ind	Ind	Ind	Adult	26	20.9
150	989-1	Med Mammal	Ind	Ind	Ind	Ind	4	5.2
151	989-1	Med Mammal	Ind	Ind	Ind	Ind	1	0.3
152	989-1	Med Mammal	Ind	Ind	Ind	Ind	1	2.6
153	989-1	Ind Mammal	Ind	Ind	Ind	Ind	1	1
154	989-1	Bovidae	Ind	Paramostoid process	Ind	Ind	1	0.7
155	989-1	Ovis aries	R	Tibia	Ind	Adult	1	1.4
156	989-1	Sm Mammal	Ind	Tibia	Ul	Imm	1	0.7

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
157	989-1	Sm Mammal	Ind	Ind	Ind	Ind	1	0.3
158	989-1	Ind Mammal	Axial	Ind vert	Ind	Ind	2	1.7
159	989-1	Med Mammal	Axial	Ind vert	Ind	Ind	2	2.9
160	989-1	Lg Mammal	Ind	Ind	Ind	Ind	35	58.9
161	989-1	Lg Mammal	Ind	Ind	Ind	Ind	4	7.5
162	989-1	Lg Mammal	Ind	Ind	Ind	Ind	26	87.4
163	989-1	Med Mammal	Ind	Carpal or tarsal	GG	Adult	1	0.2
164	989-40	Ind Mammal	Ind	Ind tooth	Ind	Ind	1	0.3
165	989-39	Canis spp.	Ind	Lower canine	Ind	Adult	1	1
166	989-38	Bivalvia	Ind	Shell	Ind	Ind	2	1.2
167	989-36	Mollusca	Ind	Shell	Ind	Ind	32	7
P-989-3								
168	989-3-7	Med Mammal	Ind	Ind	Ind	Ind	4	3.6
169	989-3-7	Med Mammal	Ind	Ind	Ind	Ind	1	1.1
170	989-3-6	Lg Mammal	Ind	Ind	Ind	Ind	3	11.2
P-989-7								
171	989-7-3	Lg Mammal	Ind	Innominate	Ind	Adult	1	7.5
172	989-7-4	Ind	Ind	Ind	Ind	Ind	1	2.4
P-989-8								
173	989-8-36	Bos taurus	R	Astragalus	Ind	Adult	1	71
174	989-8-36	Bos taurus	Ind	Femur	Ind	Adult	1	27.3
175	989-8-36	Bos taurus	Ind	Tibia	Ind	Adult	1	40.6
176	989-8-36	Bos taurus	Ind	Rib	Ind	Adult	10	73.2
177	989-8-36	Bos taurus	Axial	Ind vert	Unf	Adult	4	4.3
178	989-8-36	Bos taurus	L	Femur	GI	Adult	1	3.5
179	989-8-36	Med Mammal	R	Mandible	Ind	Ind	1	2.7
180	989-8-36	Med Mammal	Axial	Ind vert	Unf	Ind	3	0.6
181	989-8-36	Lg Mammal	Ind	Rib	Ind	Ind	1	3
182	989-8-36	Med Mammal	Ind	Molar	Ind	Adult	1	0.3

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
183	989-8-36	Ind Mammal	Ind	Ind	Ind	Ind	1	1.2
184	989-8-36	Ind Mammal	Ind	Ind	Ind	Ind	1	1
185	989-8-36	Ind Mammal	Ind	Ind	Ind	Ind	1	1.6
186	989-8-36	Ind Mammal	Ind	Ind	Ind	Ind	21	30.1
187	989-8-38	Bos taurus	Ind	Femur	Ind	Adult	1	31.7
188	989-8-38	Lg Mammal	Ind	Ind	Ind	Ind	10	14.7
189	989-8-38	Lg Mammal	Ind	Ind	Ind	Ind	20	34.7
190	989-8-38	Ind Mammal	Ind	Ind	Ind	Ind	1	0.8
191	989-8-37	Canidae	R	Femur	IF	Adult	1	4.1
192	989-8-37	Canidae	Axial	Ind vert	Unf	Ind	1	0.2
193	989-8-37	Med Mammal	Ind	Ind	Ind	Ind	2	1.1
194	989-8-37	Med Mammal	L	Calcaneus	Ind	Ind	1	0.2
195	989-8-37	Med Mammal	Axial	Caudal vert	F	Adult	2	2.1
196	989-8-37	Med Mammal	Ind	Ind	Ind	Ind	3	1.1
197	989-8-37	Med Mammal	Ind	Ind	Ind	Ind	1	1.1
198	989-8-37	Ind Mammal	Ind	Ind	Ind	Ind	7	2.5
199	989-8-37	Peromyscus spp.	Ind	Cranium	Ind	Ind	2	0.7
200	989-8-37	Peromyscus spp.	L	Mandible	Ind	Adult	1	0.1
201	989-8-37	Peromyscus spp.	Axial	Cervical vert	F	Adult	1	0.1
202	989-8-37	Peromyscus spp.	Ind	Incisor	Ind	Adult	1	0.2
203	989-8-37	Peromyscus spp.	L	Humerus	FF	Adult	1	0.1
204	989-8-37	Peromyscus spp.	Ind	Ind	Ind	Ind	3	0.1
205	989-8-32	Mollusca	Ind	Shell	Ind	Ind	52	9.8
206	989-8-31	Mollusca	Ind	Shell	Ind	Ind	2	0.7
207	989-8-39	Ind Mammal	Ind	Ind	Ind	Ind	31	4.8
208	989-8-39	Sm Mammal	Ind	Ind	Ind	Ind	1	0.1
209	989-8-39	Ind Mammal	Ind	Ind	Ind	Ind	39	3.4
210	989-8-39	Ind Mammal	Ind	Ind	Ind	Ind	68	10.8
211	989-8-39	Sm Mammal	Ind	Ind	Ind	Ind	30	0.4
212	989-8-39	Ind Vertebrate	Ind	Ind	Ind	Ind	2	0.1
213	989-8-39	Ind Vertebrate	Ind	Eggshell	Ind	Ind	5	0.1
214	989-8-39	Bivalvia	Ind	Shell	Ind	Ind	5	0.1

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
215	989-8-39	Ind fish	Ind	Rib	Ind	Ind	3	0.1
216	989-8-39	Ind fish	Ind	Ind	Ind	Ind	1	0.1
217	989-8-39	Rat spp.	R	Ulna	FI	Adult	1	0.1
218	989-8-39	Rat spp.	R	Humerus	UF	Adult	1	0.1
219	989-8-39	Rat spp.	Ind	Radius	IF	Adult	1	0.1
220	989-8-39	Rat spp.	R	Scapula	F	Adult	1	0.1
221	989-8-39	Rat spp.	Ind	Third phalanx indeterminate	Ind	Adult	8	0.1
222	989-8-39	Rat spp.	R	Calcaneus	F	Adult	1	0.1
223	989-8-39	Rat spp.	Ind	Carpal or tarsal	F	Adult	2	0.1
224	989-8-39	Rat spp.	R	Humerus	IF	Adult	1	0.1
225	989-8-39	Rat spp.	L	Humerus	IF	Adult	1	0.1
226	989-8-39	Rat spp.	Axial	Lumbar vert	F	Adult	1	0.1
227	989-8-39	Rat spp.	L	Femur	UI	Adult	1	0.1
228	989-8-39	Rat spp.	R	Femur	UI	Adult	1	0.1
229	989-8-39	Rat spp.	R	Femur	IU	Adult	1	0.1
230	989-8-39	Rat spp.	Axial	Ind vert	F	Adult	1	0.1
231	989-8-39	Rat spp.	Ind	Meatus acusticus	Ind	Adult	2	0.2
232	989-8-39	Rat spp.	Ind	Cranium	Ind	Ind	1	0.1
233	989-8-39	Sm Mammal	Ind	Limb bone	Ind	Ind	4	0.1
234	989-8-39	Sm Mammal	Ind	Ind vert	Ind	Ind	1	0.2
235	989-8-39	Sm Mammal	Ind	Ind	Ind	Ind	1	0.2
236	989-8-39	Sm Mammal	Ind	Ind	Ind	Ind	2	0.1
P-989-9								
237	989-9-7	Bivalvia	Ind	Shell	Ind	Ind	2	2.4
238	989-9-9	Ovis aries	L	Femur	FI	Adult	1	6.9
239	989-9-9	Ovis aries	L	Femur	Ind	Adult	1	4.3
240	989-9-9	Bos taurus	Ind	Rib	Ind	Adult	1	17.9
241	989-9-9	Bos taurus	Ind	Innominate	Ind	Adult	1	34.4
242	989-9-9	Bos taurus	Axial	Thoracic vert	G	Adult	1	33.1
243	989-9-9	Bos taurus	Axial	Ind vert	G	Adult	1	21.6
244	989-9-9	Bos taurus	Axial	Ind vert	G	Adult	1	12.7

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
245	989-9-9	Bos taurus	Axial	Ind vert	G	Adult	1	3.4
246	989-9-9	Bos taurus	Axial	Ind vert	G	Adult	1	3.7
247	989-9-9	Bos taurus	Axial	Ind vert	G	Adult	1	5.8
248	989-9-9	Bos taurus	Axial	Ind vert	G	Adult	1	1.2
249	989-9-9	Lg Mammal	Ind	Rib	Ind	Adult	1	0.8
250	989-9-9	Lg Mammal	Ind	Rib	Ind	Adult	1	2.7
251	989-9-9	Lg Mammal	Ind	Ind vert	Ind	Ind	3	12.2
252	989-9-9	Bos taurus	Axial	Ind vert	Unf	Adult	1	1.2
253	989-9-9	Med Mammal	Axial	Ind vert	Ind	Ind	1	0.6
254	989-9-9	Lg Mammal	Ind	Ind	Ind	Ind	7	18.6
255	989-9-12	Lg Mammal	Ind	Ind	Ind	Ind	30	21.5
256	989-9-12	Lg Mammal	Ind	Ind	Ind	Ind	7	3.7
257	989-9-11	Lg Mammal	Ind	Ind	Ind	Ind	1	3.8
258	989-9-10	Corvus brachyrhynchos	L	Tarsometatarsus	F	Adult	1	0.3
259	989-9-10	Corvus brachyrhynchos	R	Tibiotarsus	F	Adult	1	0.6
260	989-9-10	Corvus brachyrhynchos	R	Tibiotarsus	F	Adult	1	0.3
261	989-9-10	Corvus brachyrhynchos	Ind	Phalanx	F	Adult	1	0.1
262	989-9-10	Sciuridae	Ind	Maxilla	Ind	Adult	1	0.2
263	989-9-10	Sciuridae	R	Femur	F	Adult	1	0.3
264	989-9-10	Sciuridae	Axial	Thoracic vert	F	Adult	1	0.1
265	989-9-10	Med Mammal	Ind	Phalanx	G	Adult	1	0.4
P-989-10								
266	989-10-5	Bivalvia	Ind	Shell	Ind	Ind	20	0.6
267	989-10-3	Lg Mammal	Ind	Ind	Ind	Ind	12	22.5
268	989-10-3	Lg Mammal	Ind	Ind	Ind	Ind	22	14.7
269	989-10-2	Ovis aries	Ind	Phalanx	F	Adult	1	3.5
270	989-10-2	Ovis aries	R	Radius	G	Adult	1	6.1
271	989-10-2	Bos taurus Immature	L	Innominate	Unf	Imm	1	19.1
272	989-10-2	Ovis aries	Ind	Rib	Ind	Adult	1	42.5
273	989-10-2	Ovis aries	Ind	Rib	Ind	Adult	1	26.5
274	989-10-2	Ovis aries	Ind	Rib	Ind	Adult	1	2.8

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
275	989-10-2	Ovis aries	Ind	Rib	Ind	Adult	1	3.1
276	989-10-2	Ovis aries	Ind	Rib	Ind	Adult	1	7.6
277	989-10-2	Ovis aries	Ind	Rib	Ind	Adult	1	7.6
278	989-10-2	Ovis aries	Ind	Rib	Ind	Adult	1	6.3
279	989-10-2	Ovis aries	Ind	Rib	Ind	Adult	1	8.9
280	989-10-2	Lg Mammal	Ind	Rib	Ind	Ind	7	10.1
281	989-10-2	Ovis aries	Ind	Antler	Ind	Ind	1	7.6
282	989-10-2	Ind Mammal	Ind	Femur	Unf	Ind	1	2.9
283	989-10-2	Med Mammal	Ind	Ind vert	Ind	Ind	5	5.4
284	989-10-2	Ind Mammal	Ind	Ind vert	Ind	Ind	1	2.6
285	989-10-2	Ind Mammal	Ind	Ind	Ind	Ind	1	3.9
286	989-10-2	Ind Mammal	Ind	Ind	Ind	Ind	1	2
287	989-10-2	Ind Mammal	Ind	Ind	Ind	Ind	1	2.6
288	989-10-2	Lg Mammal	Ind	Limb bone	Ind	Ind	3	17.5
289	989-10-2	Ind Mammal	Ind	Ind vert	Ind	Ind	1	2
290	989-10-2	Med Mammal	Ind	Phalanx	Ind	Ind	1	1
291	989-10-4	Artiodactyla II	Ind	Hyoid	F	Adult	1	1.3
292	989-10-4	Med Mammal	Axial	Ind vert	Unf	Adult	1	0.8
293	989-10-4	Med Mammal	Axial	Ind vert	Ind	Ind	1	1.5
294	989-10-4	Rat spp.	L	Innominate	F	Adult	1	0.3
295	989-10-4	Rat spp.	Ind	Ind tooth	Ind	Adult	1	0.1
296	989-10-4	Sm Mammal	Ind	Limb bone	Ind	Ind	3	0.5
297	989-10-4	Med Mammal	Ind	Carpal or tarsal	G	Adult	1	0.6
298	989-10-4	Ind Mammal	Ind	Ind	Ind	Ind	7	0.6
299	989-10-4	Med Mammal	Ind	Ind	Ind	Ind	21	10.2
300	989-10-4	Sm Mammal	Ind	Ind	Ind	Ind	3	0.3
301	989-10-4	Ind Vertebrate	Ind	Ind	Ind	Ind	3	0.8
302	989-10-4	Med Mammal	Ind	Humerus	F	Adult	1	2.4
P-989-11								
303	989-11-7	Ind Mammal	Ind	Ind	Ind	Ind	1	1.1
304	989-11-6	Sciurus spp.	Axial	Lumbar vert	F	Adult	1	0.2

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
305	989-11-5	Bos taurus	L	Innominate	Ind	Adult	1	11
306	989-11-5	Bos taurus	Ind	First phalanx indeterminate	F	Adult	1	21.4
307	989-11-5	Bos taurus	Axial	Lumbar vert	Ind	Adult	1	34.9
308	989-11-5	Bos taurus	Axial	Lumbar vert	Ind	Adult	1	9.3
309	989-11-5	Bos taurus	Ind	Antler	Ind	Adult	1	4.5
310	989-11-5	Lg Mammal	Ind	Limb bone	Ind	Ind	1	5.1
311	989-11-5	Lg Mammal	Ind	Ind	Ind	Ind	19	23.5
P-989-12								
312	989-12-2	Lg Mammal	Ind	Rib	Ind	Adult	1	3.3
313	989-12-3	Mollusca	Ind	Shell	Ind	Ind	1	0.7
314	989-12-3	Bivalvia	Ind	Shell	Ind	Ind	2	0.2
P-989-13								
315	989-13-17	Ind Mammal	Ind	Ind	Ind	Ind	1	0.5
316	989-13-16	Bos taurus	Ind	Rib	Ind	Adult	1	19.7
P-989-14								
317	989-14-11	Med Mammal	Axial	Ind vert	Ind	Ind	1	2.1
318	989-14-11	Bos taurus	Ind	Incisor	Ind	Ind	1	0.4
319	989-14-11	Lg Mammal	Axial	Ind vert	Ind	Adult	1	6.2
320	989-14-11	Lg Mammal	Ind	Limb bone	Ind	Ind	1	10.7
321	989-14-11	Lg Mammal	Ind	Limb bone	Ind	Ind	4	21.3
322	989-14-11	Ind Mammal	Ind	Ind	Ind	Ind	2	7.1
323	989-14-11	Lg Mammal	Ind	Rib	Ind	Adult	12	37.9
324	989-14-11	Lg Mammal	Axial	Ind vert	Ind	Ind	1	1.1
325	989-14-11	Ind Mammal	Axial	Ind vert	Ind	Ind	3	3.4
326	989-14-11	Lg Mammal	Ind	Ind	Ind	Ind	15	30
327	989-14-11	Ind vertebrate	Ind	Ind	Ind	Ind	1	0.4
328	989-14-12	Citellus beecheyi	Axial	Sacrum	F	Adult	1	0.5
329	989-14-12	Artiodactyla I	Ind	Rib	Ind	Adult	1	1
330	989-14-12	Med Mammal	Ind	Phalanx	G	Ind	1	0.4

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
331	989-14-12	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.2
332	989-14-12	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.2
333	989-14-13	Bos taurus	Ind	Carpal or tarsal	Ind	Ind	1	5.5
334	989-14-13	Ind Mammal	Ind	Ind	Ind	Ind	4	3.9
335	989-14-13	Lg Mammal	Ind	Ind	Ind	Ind	3	15.7
336	989-14-13	Ind Mammal	Ind	Ind	Ind	Ind	29	19.1
337	989-14-13	Lg Mammal	Ind	Ind	Ind	Ind	6	16
338	989-14-14	Bivalvia	Ind	Shell	Ind	Ind	3	2.5
339	989-14-15	Bivalvia	Ind	Shell	Ind	Ind	7	0.7
P-989-15								
340	989-15-4	Bos taurus	Ind	Rib	Ind	Adult	1	23
341	989-15-4	Med Mammal	Ind	Humerus	Unf	Adult	1	1.1
342	989-15-4	Lg Mammal	Ind	Ind	Ind	Ind	4	6.1
343	989-15-4	Ind Mammal	Ind	Ind vert	Ind	Ind	1	1.4
344	989-15-4	Med Mammal	Ind	Ind vert	G	Imm	1	2
345	989-15-6	Ind Mammal	Ind	Ind	Ind	Ind	1	0.3
346	989-15-6	Ind Mammal	Ind	Ind	Ind	Ind	1	0.2
347	989-15-6	Lg Mammal	Ind	Ind	Ind	Ind	1	3.5
348	989-15-5	Rodentia	Axial	Sacrum	F	Adult	1	0.5
350	989-15-5	Sm Mammal	Ind	Ind	Ind	Ind	1	0.5
351	989-15-5	Duck spp.	R	Carpometacarpus	Ind	Adult	1	0.6
352	989-15-7	Bivalvia	Ind	Shell	Ind	Ind	6	1.3
P-989-17								
353	989-17-23	Ind Fish	Ind	Suboperculum	Ind	Ind	1	0.1
354	989-17-18	Bos taurus	Ind	Rib	Ind	Adult	1	18
355	989-17-18	Bos taurus	Ind	Rib	Ind	Adult	1	7.1
356	989-17-18	Lg Mammal	Ind	Rib	Ind	Ind	1	3
357	989-17-18	Bos taurus	Ind	Ind Tooth	Ind	Ind	2	2.8
358	989-17-18	Med Mammal	Axial	Caudal vert	G	Ind	1	1.1
359	989-17-18	Med Mammal	Ind	Limb bone	Ind	Ind	1	1.1

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
360	989-17-18	Ind Mammal	Ind	Ind	Ind	Ind	1	1.4
361	989-17-18	Lg Mammal	Ind	Ind	Ind	Ind	19	34.6
362	989-17-20	Ind Mammal	Ind	Ind	Ind	Ind	22	15.2
363	989-17-20	Ind Mammal	Ind	Ind	Ind	Ind	6	5.4
364	989-17-19	Citellus beecheyi	R	Femur	FI	Adult	1	0.6
365	989-17-19	Citellus beecheyi	R	Femur	IU	Adult	1	0.3
366	989-17-19	Gallus gallus	R	Humerus	Ind	Adult	1	2.4
367	989-17-19	Sm Mammal	Ind	Limb bone	Ind	Ind	2	0.8
368	989-17-19	Med Mammal	Ind	Metapodial	Ind	Ind	2	2.2
369	989-17-19	Ind Mammal	Ind	Ind	Ind	Ind	84	40.1
370	989-17-21	Mollusca	Ind	Shell	Ind	Ind	2	1.2
371	989-17-22	Bivalvia	Ind	Shell	Ind	Ind	7	5.3
372	989-18-2	Bos taurus	L	Astragalus	F	Adult	1	51.4
373	989-18-2	Ind Mammal	Ind	Ind Tooth	Ind	Ind	1	0.3
374	989-18-2	Med Mammal	Axial	Ind vert	Unf	Adult	3	0.5
375	989-18-2	Ind Mammal	Ind	Ind	Ind	Ind	16	4.6
376	989-18-2	Ind Mammal	Ind	Ind Tooth	Ind	Ind	1	0.1
377	989-18-2	Med Mammal	Axial	Ind vert	Ind	Ind	1	0.8
378	989-18-2	Sm Mammal	Ind	Ind	Ind	Ind	1	0.1
379	989-18-2	Ind Mammal	Ind	Ind	Ind	Ind	9	2.7
380	989-18-2	Ind Mammal	Ind	Ind	Ind	Ind	21	13.9
381	989-18-2	Bivalvia	Ind	Shell	Ind	Ind	1	1
382	989-18-5	Mollusca	Ind	Shell	Ind	Ind	23	1.8
383	989-18-3	Mollusca	Ind	Shell	Ind	Ind	1	1.6
P-989-20								
384	989-20-4	Ind Mammal	Ind	Rib	Ind	Ind	1	2.9
385	989-20-5	Bos taurus	Ind	Rib	Ind	Adult	1	8.1
386	989-20-5	Lg Mammal	Ind	Rib	Ind	Ind	1	5.8
387	989-20-5	Med Mammal	Ind	Rib	Ind	Ind	1	0.5
388	989-20-5	Lg Mammal	Ind	Limb bone	Ind	Ind	1	4.4

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
389	989-20-5	Lg Mammal	Ind	Ind	Ind	Ind	11	9.4
390	989-20-5	Ind Mammal	Ind	Ind	Ind	Ind	2	1
391	989-20-6	Ind Mammal	Ind	Ind	Ind	Ind	2	2.2
392	989-20-7	Mollusca	Ind	Shell	Ind	Ind	1	0.6
393	989-20-8	Bivalvia	Ind	Shell	Ind	Ind	3	0.6
P-989-21								
394	989-21-3	Lg Mammal	Ind	Ind	Ind	Ind	9	19.9
P-989-22								
395	989-22-1	Bos taurus	L	Humerus	UI	Adult	1	96.3
396	989-22-1	Ovis aries	Axial	Sacral vert	F	Adult	1	8.1
397	989-22-1	Ovis aries	Ind	Rib	Ind	Adult	1	1.5
398	989-22-1	Lg Mammal	Axial	Ind vert	Ind	Ind	1	9.6
399	989-22-1	Lg Mammal	Axial	Ind vert	Ind	Ind	1	9.6
400	989-22-1	Lg Mammal	Ind	Ind	Ind	Ind	3	7.3
401	989-22-2	Citellus beecheyi	L	Humerus	FI	Adult	1	0.7
402	989-22-2	Rat spp.	R	Mandible	Ind	Adult	1	0.6
403	989-22-2	Rat spp.	R	Humerus	FU	Adult	1	0.2
404	989-22-2	Rat spp.	Ind	Incisor	Ind	Ind	3	0.1
P-989-23								
405	989-23-2	Bos taurus	Axial	Sacral vert	G	Adult	1	67.9
406	989-23-2	Ind Mammal	Ind	Rib	Ind	Ind	1	0.9
P-989-24								
407	989-24-10	Bos taurus	Axial	Lumbar vert	G	Adult	1	51.2
408	989-24-10	Bos taurus	Ind	Rib	Ind	Adult	1	26.9
409	989-24-10	Lg Mammal	Ind	Ind	Ind	Ind	1	17.3
410	989-24-13	Ind Mammal	Ind	Ind	Ind	Ind	17	2.2
411	989-24-13	Ind Mammal	Ind	Ind	Ind	Ind	5	0.5
412	989-24-13	Ind Mammal	Ind	Ind	Ind	Ind	1	0.1

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
413	989-24-13	Ind Bird	Ind	Limb bone	Ind	Ind	2	0.1
414	989-24-11	Sciurus spp.	R	Mandible	Ind	Adult	1	1.1
415	989-24-12	Ind Fish	Ind	Ind vert	Ind	Ind	1	0.1
P-989-25								
416	989-25-7	Bos taurus	R	Radius	IF	Adult	1	144.7
417	989-25-7	Bos taurus	Axial	Ind vert	Unf	Adult	1	6.8
418	989-25-7	Bos taurus	Ind	Rib	Ind	Adult	1	12.6
419	989-25-7	Bos taurus	Axial	Ind vert	Ind	Adult	1	8.7
420	989-25-7	Ovis aries	Ind	Rib	Ind	Adult	1	2.5
421	989-25-7	Lg Mammal	Ind	Ind vert	Ind	Ind	11	23.5
422	989-25-7	Lg Mammal	Ind	Limb bone	Ind	Ind	3	19.1
423	989-25-7	Lg Mammal	Ind	Ind	Ind	Ind	3	6.1
424	989-25-7	Bos taurus	Axial	Cranium	Ind	Ind	1	2.1
425	989-25-7	Bos taurus	Axial	Cranium	Ind	Ind	1	0.3
426	989-25-7	Bos taurus	Ind	Sesamoid	Ind	Ind	1	0.4
427	989-25-7	Med Mammal	Ind	Ind	Ind	Ind	1	0.4
428	989-25-9	Ind Mammal	Ind	Ind	Ind	Ind	36	16.2
429	989-25-9	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.2
430	989-25-9	Ind Mammal	Ind	Ind	Ind	Ind	3	2.5
431	989-25-9	Lg Mammal	Ind	Ind	Ind	Ind	10	38.4
432	989-25-9	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.2
433	989-25-9	Ind Mammal	Ind	Ind	Ind	Ind	21	10.4
434	989-25-9	Med Mammal	Ind	Limb bone	Ind	Ind	1	1.4
435	989-25-8	Sciurus spp.	R	Scapula	F	Adult	1	0.1
436	989-25-8	Sciurus spp.	R	Humerus	FI	Adult	1	0.4
437	989-25-8	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.1
438	989-25-8	Sciurus spp.	Axial	Ind vert	F	Adult	1	0.4
439	989-25-8	Sm Mammal	Ind	Cranium	Ind	Ind	2	0.2
440	989-25-8	Med Mammal	Ind	Ind	Ind	Ind	2	0.7
441	989-25-8	Ind Fish	Ind	Basipterygium	FI	Adult	1	0.1
442	989-25-10	Sm Mammal	Ind	Humerus	Ind	Ind	1	0.1

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
443	989-25-10	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.1
444	989-25-11	Mollusca	Ind	Shell	Ind	Ind	36	4
445	989-25-12	Bivalvia	Ind	Shell	Ind	Ind	1	1.5
446	989-25-13	Mollusca	Ind	Shell	Ind	Ind	1	2
461	989-25-11	Mollusca	Ind	Shell	Ind	Ind	38	4
P-989-26								
447	989-26-8	Bos taurus	Ind	Rib	Ind	Adult	3	42.5
448	989-26-8	Bos taurus	Ind	Rib	Ind	Adult	3	9
449	989-26-10	Ind Mammal	Ind	Ind	Ind	Ind	138	29
450	989-26-10	Ind Mammal	Ind	Ind	Ind	Ind	64	21.8
451	989-26-10	Sm Mammal	Ind	Limb bone	Ind	Ind	4	0.1
452	989-26-10	Ind Mammal	Ind	Ind	Ind	Ind	9	1.1
453	989-26-9	Citellus beecheyi	L	Scapula	F	Adult	1	0.1
454	989-26-9	Citellus beecheyi	L	Scapula	Ind	Adult	1	0.1
455	989-26-9	Citellus beecheyi	L	Humerus	IF	Adult	1	0.2
456	989-26-9	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.1
457	989-26-9	Sm Mammal	Ind	Ind	Ind	Ind	2	0.1
458	989-26-9	Citellus beecheyi	R	Innominate	F	Adult	1	0.3
459	989-26-9	Med Mammal	Ind	Ind	Ind	Ind	4	2.4
460	989-26-9	Ind Mammal	Ind	Ind	Ind	Ind	10	1.9
462	989-26-11	Bivalvia	Ind	Shell	Ind	Ind	2	1.5
464	989-26-11	Mollusca	Ind	Shell	Ind	Ind	70	5.7
465	989-26-11	Rodentia	Ind	Carpal or tarsal	F	Adult	1	0.1
466	989-26-11	Rodentia	Ind	Ind vert	F	Adult	1	0.1
467	989-26-11	Rodentia	Ind	Limb bone	Ind	Ind	1	0.1
468	989-26-11	Ind Mammal	Ind	Ind	Ind	Ind	12	0.8
469	989-26-11	Ind Mammal	Ind	Ind	Ind	Ind	2	0.1
470	989-26-11	Ind Mammal	Ind	Ind	Ind	Ind	14	1.4
P-989-27								
471	989-27-7	Bos taurus	R	Humerus	IF	Adult	1	174.8

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
472	989-27-7	Bos taurus	Ind	Distal sesamoid	F	Adult	1	15.2
473	989-27-7	Bos taurus	Ind	Rib	Ind	Adult	1	14.7
474	989-27-7	Bos taurus	Ind	Rib	Ind	Adult	1	22
475	989-27-7	Bos taurus	Ind	Rib	Ind	Ind	4	20.1
476	989-27-7	Bos taurus	Ind	Antler	Ind	Ind	2	4.6
477	989-27-7	Lg Mammal	Ind	Limb bone	Ind	Ind	4	9
478	989-27-7	Ind Mammal	Ind	Ind	Ind	Ind	2	2.2
479	989-27-7	Ind Mammal	Ind	Ind	Ind	Ind	4	2.6
480	989-27-7	Bos taurus	Axial	Atlas	F	Adult	1	2
481	989-27-7	Med Mammal	Axial	Ind vert	Ind	Ind	1	4
482	989-27-7	Lg Mammal	Axial	Ind vert	Ind	Ind	1	14.5
483	989-27-7	Bos taurus	Ind	Maxilla	Ind	Adult	1	4.8
484	989-27-9	Ind Mammal	Ind	Ind	Ind	Ind	5	2.3
485	989-27-9	Med Mammal	Ind	Ind	Ind	Ind	11	8
486	989-27-9	Med Mammal	Ind	Limb bone	Ind	Ind	1	2.7
487	989-27-8	Citellus beecheyi	Axial	Cranium	Ind	Adult	1	2
488	989-27-8	Citellus beecheyi	Ind	Incisor	Ind	Adult	1	0.1
489	989-27-8	Citellus beecheyi	R	Mandible	Ind	Adult	1	0.5
490	989-27-8	Citellus beecheyi	L	Mandible	Ind	Adult	1	0.3
491	989-27-8	Citellus beecheyi	L	Innominate	Ind	Adult	1	0.5
492	989-27-8	Citellus beecheyi	Ind	Carpal or tarsal	F	Adult	1	0.3
493	989-27-8	Citellus beecheyi	Ind	Sesamoid	F	Adult	1	0.2
494	989-27-8	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.1
495	989-27-8	Med Mammal	Ind	Ind	Ind	Ind	8	4.5
496	989-27-12	Mollusca	Ind	Shell	Ind	Ind	3	0.5
497	989-27-11	Mollusca	Ind	Shell	Ind	Ind	1	0.4
498	989-27-10	Bivalvia	Ind	Shell	Ind	Ind	1	1.2
P-989-28								
499	989-28-2	Ind Mammal	Ind	Ind	Ind	Ind	8	6.9
500	989-28-2	Bos taurus	Ind	Rib	F	Adult	1	15.8
501	989-28-2	Bos taurus	Ind	Rib	Ind	Adult	1	8.3

NEOPHYTE HOUSING AREA ASSEMBLAGE MISSION SJB

UBNo	Context	Taxon	Side	Element	Fusion	Size	NISP	Weight
502	989-28-2	Bos taurus	Ind	Rib	Ind	Adult	1	2.2
503	989-28-2	Ovis aries	Ind	Limb bone	Ind	Ind	1	4.4
504	989-28-2	Ovis aries	Ind	Ind Tooth	Ind	Ind	1	3
505	989-28-4	Lg Mammal	Ind	Ind	Ind	Ind	1	4.5
506	989-28-4	Ind Mammal	Ind	Ind	Ind	Ind	16	11.3
507	989-28-4	Ind Mammal	Ind	Ind	Ind	Ind	12	7.3
508	989-28-3	Citellus beecheyi	R	Femur	FU	Adult	1	0.7
509	989-28-3	Citellus beecheyi	R	Femur	GU	Imm	1	0.7
510	989-28-3	Citellus beecheyi	R	Femur	FI	Adult	1	0.2
511	989-28-3	Citellus beecheyi	R	Fibula	FG	Adult	1	0.1
512	989-28-3	Citellus beecheyi	Ind	Carpal	F	Adult	1	0.3
513	989-28-3	Citellus beecheyi	R	Mandible	Ind	Adult	1	0.4
514	989-28-3	Sm Mammal	Ind	Limb bone	Com	Com	2	0.5
515	989-28-3	Sm Mammal	Ind	Sesamoid	Ind	Ind	1	0.3
516	989-28-3	Sm Mammal	Ind	Ind	Ind	Ind	4	1.4
517	989-28-3	Sm Mammal	Ind	Ind	Ind	Ind	2	0.3
518	989-28-5	Mollusca	Ind	Shell	Ind	Ind	16	1.3
P-989-29								
519	989-29-2	Bos taurus	R	Humerus	Ind	Adult	1	10
520	989-29-2	Lg Mammal	Ind	Limb bone	Ind	Ind	5	9.3
521	989-29-2	Lg Mammal	Ind	Limb bone	Ind	Ind	5	8
522	989-29-3	Sm Mammal	Ind	Limb bone	Ind	Ind	1	0.2
523	989-29-4	Ind Mammal	Ind	Ind	Ind	Ind	15	3.9
524	989-29-5	Mollusca	Ind	Ind	Ind	Ind	3	0.2

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