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A Synthesis of Archaeology and History:

Documenting Sociocultural Change in the Spanish Borderlands

It might be said that as archaeology is the history of human material culture and that the documents of history are a part of archaeology. It might also be said that as history is a chain of events that happened in the past and were recorded, and that these recorded events involve at least to some degree the artifacts, structures and features which archaeology studies. It is therefore unfortunate that both some archaeologists and some historians have chosen to ignore or disparage the other discipline – these archaeologists choosing to believe that the material record is more truthful than texts and these historians believing that texts provide better and more complete information than do materials. This seems to be a regrettable consequence of disciplinary competition, hubris and posturing as opposed to a pursuit of knowledge and/or truth. If the goal of both disciplines is to reconstruct the human past and account for the changes and events which took place, it would seem far more fruitful to acknowledge that both history and archaeology can contribute to the knowledge of the past, in as much as the past can actually be known to any extent.

As many archaeologists have sought to account for cultural changes in past societies, and some have gone so far as to seek to create general laws that might account for cultural change, it seems curious that many of these "scientific" archaeologists would choose to attempt a creation of such laws by studying mainly prehistoric societies for which they have little or no supplemental texts to aid in social reconstructions. In using historic texts, archaeologists can

create a fuller picture of the societies they study, and will therefore know more about such societies. Randall McGuire states “the historic archaeologist is in a better position than is the specialist in prehistory to make meaningful studies of cultural process and human behavior” (1979: 3). This is due to the availability of documents that can confirm, deny or challenge archaeological hypotheses, assessments and interpretations.

Although it might be argued that historical documents are subject to the same interpretational flaws as are other texts or even artifacts, documentation provides information and perspectives on past events, which despite their imperfections are more valuable than the complete lack of any documentation at all. It might also be argued that historical archaeology in the Americas is flawed in that the societies that created the historic texts, i.e. Europeans, had vastly different sociocultural characteristics than the societies that preceded them, i.e. Native Americans. Again however, the information provided from flawed European accounts and perspectives on Native Americans is better than no information at all and if the documentation is read with a critical eye and cross checked with archaeological data, the knowledge gained from such investigations is far more complete than is the knowledge from archaeological or historical data alone. Archaeologist Kent Lightfoot argues that if prehistoric archaeologists were better trained in the methodological approaches of historical archaeologists, and vice-versa, a better picture of long-term culture change would emerge (1995). Thus it would seem that if an archaeologist were truly interested in generating meaningful hypotheses or laws on how culture or cultures might change, it would be far more valuable to first look at cultures and situations where historical data can create a more complete picture of how such a process of change might occur, and then use such information to speculate on the cultural changes in societies where few or no such records exist.

Accordingly, it might be productive if a historical archaeological investigation of culture change decided to work backward in time, to start at the end and work back to the beginning – much the same way as a site excavation is carried out. As beginning and end are somewhat arbitrary temporal constructions, they can be chosen according to particular historical periods and in a particular location in which there is both adequate archaeological and documentary evidence of such a situation. This paper has chosen to evaluate a particular area located in what is now known as the Southwestern United States, from the period that it was conquered by the United States and incorporated into this new empire sealing the southern and western region of a political policy of manifest destiny, back to the time when the continent was "discovered" by Christopher Columbus sailing for a newly unified Catholic kingdom in what is now known as Spain. This area during this time period has been appropriately called the "Spanish Borderlands".

The Spanish Borderlands

Historian Herbert Bolton first introduced the term "Spanish Borderlands" to American scholarship in 1921 and the geographic area that the term encompasses extends across what is now the entire southern United States from Florida to California (Weber 1991). The fact that it took until that time to be named is no less a function of historical processes and the area can be further divided into an eastern and western section due to the particulars of US history. As the United States was a political body based in the east, it had earlier designs of appropriation on the eastern portion of this region, and the basic dividing line between east and west was in Texas. The Spanish colonies to the east of Texas had been acquired by the US from Spain in the early 1800's with the agreement that the US would not acquire Texas. Mexico then gained independence from Spain and proceeded to lose the state of Texas in 1836 to colonists from the United States wishing to form an independent nation. Mexico reluctantly allowed the quasi-

independence of Texas as it did not have the resources to prevent this takeover, but when it was admitted as a state to the US in 1845, the Mexican-American war ensued. The US invaded and proceeded on a two-year march through Mexican territory, raising its flag in Mexico City in September of 1847. Mexico was forced to surrender and relinquish 890,000 square miles of land in what have become the states of Texas, New Mexico, Arizona, and California; receiving 15 million dollars in compensation (Villegas, Bernal, Toscano, Gonzales, Blanquel, Meyer 1995). As areas to the east of Texas and Texas itself had already been colonized by US settlers at this point, the Spanish influence in the US southeast had been largely unknown or ignored by the general public up until Bolton named the area and often into the present day (Weber 1991).

The southwestern borderlands however, had much less Anglo-American history due to these historical circumstances. The US had only completely consolidated power in the area west of Texas after the Civil War and consequently, many Anglo settlers adopted romantic ideals of the Spanish occupation in the southwest as the annals of the area had little other European narratives from which to draw on, unlike the southeast. The borderlands were seen as an area where Spanish and Anglo European culture had collided and intermingled. This is evidenced by the use of missions and other Spanish structural remnants in the region as cultural symbols and icons of southwestern heritage into the present. Although many historical scholars debate the idea of a region that is not a complete part of either US or Latin American history, and that the region will therefore remain “peripheral to the core areas” of both histories (Weber 1991: 14), the Western Spanish Borderlands constitute a unique place to study culture contact and changes through a variety of different historical, ethnographic and archaeological methods and perspectives.

Historical Archaeology

The characterization of this region as a "Spanish" borderland, however, in many ways denies its prior indigenous background. Although the history of peoples who existed prior to European contact might be viewed as an oxymoron – they were a people without history, lacking any documentary records and were therefore studied by prehistoric archaeologists – historical archaeology broadened its definition in the New World to include such peoples in a post Columbian context.

The concept of historical archaeology is often tied to the existence of written texts by the society that archaeologists are studying. Accordingly, an archaeology of the European Renaissance would be considered historic due to the existence of written documents by Europeans during the Renaissance. However, in the Americas, historical archeology has developed largely around non-indigenous material in a site. Therefore, only sites with European or other material from outside the Americas would be considered historic sites. Bernard Fontana suggested that historic sites should include sites that have information about a site as well (1965: 61). This puts many sites that have some historical documentation about them, as well as in them, within the realm of historical archaeology in the Americas.

Kent Lightfoot later argues that the distinction between prehistoric and historical archaeology is a false one and that it undermines the study of long-term culture change in archaeological inquiry (1995). Although this is certainly true, Lightfoot also states "the temporal scales at which archaeologists work should be defined by the research problems being addressed, rather than by arbitrarily created subfields" (1995:211). As the focus of this inquiry is entirely on what would be considered the historic period by Fontana's definition, it is therefore useful to use the classifications and jargon of this traditional historical archaeological scholarship and leave

the debate on the division of historical and prehistoric archaeology to inquiries addressing other research problems.

Fontana attempts to create a framework of classification for historic archaeologists to work within when defining their sites. Fontana classifies historic sites into five types – non-aboriginal, frontier, post-contact, contact and proto-historic. Non-aboriginal sites would have theoretically existed without aboriginals and have little or no evidence of involvement with aboriginals. They include mining operations and many cities and towns. Frontier sites are those that were founded and administered by non-aboriginals but had a great deal of interaction with aboriginals, such as missions or military forts designed to deal with natives. Post-contact sites are those where an aboriginal group had settled after contact with non-aboriginals, such as Indian reservations. Contact sites include those in which non-aboriginal peoples had physically visited the aboriginal peoples who had been living in an area prior to the contact with non-aboriginals, such as pueblos. Proto-historic sites are post-Columbian but predate any non-aboriginal direct contact with the aboriginals at a particular location. Such sites include areas where European goods had arrived through trade but no documented contact with Europeans had taken place.

In creating a classificatory system based around ethnicity rather than time, this formation is often chronologically problematic containing many indistinct and overlapping layers. This haze will become demonstratively thicker as time and history are excavated into the more distant past. Therefore, the utilization of this framework is merely an attempt to provide a traditional historic archaeological stratigraphic architecture for excavation.

Non-Aboriginal Sites

To begin in the present, it is best to start in a fixed specific area as time precedes from present to past with an overwhelming amount of information about specific locations and topics

toward a less specific amount of generalized information about progressively larger areas and topics. The city of Tucson is an excellent point of departure as it is centrally located within the region of this discussion, and has also had a substantial amount of archeological investigation and excavation within its city limits and surrounding areas.

James Ayres conducted an excavation of a city block in 1988 as part of the Tucson Convention Center Expansion project. The east side of the block showed that residences were attached in a Sonoran style and constructed mainly of adobe with open-air ovens and no front yards, while the on west side of the block residences were primarily constructed with brick. These contrasting architectural styles persisted from 1872 until as late as 1930 and Ayres suggests that these contrasting styles illustrate the habitations of different ethnic groups. Noting that Mexican pottery is found only in features related to the adobe structures and given the historical documentation on the residents in the area, his conclusion is that ethnic Hispanics occupied the adobe structures. Census data showed that by 1920, the Mexican American population of Tucson had dropped to around 37%, just over half what it had been just before the beginning of the site occupation. The brick structures were larger and occupied more physical space while also containing larger yards, both front and back. Though these structures contained some fragments of Pagago Indian pottery, they did not contain any Mexican pottery. As these structures were consistent with the higher economic status and characteristics of many other Anglo parts of Tucson, Ayers assumed Anglos likely occupied these residences (Ayres 1990).

The Chinese were also in Tucson during this period. Florence and Robert Lister excavated parts of Tucson's Old Chinatown as part of the Urban Renewal Project from 1968 to 1973. Although Tucson's ethnic Chinese population was never more than 2% of the total, excavations conducted by the Listers showed that they had maintained many of the material

characteristics of traditional Chinese culture and were thus assumed not to have been heavily enculturated into Anglo or Hispanic culture. The Listers note that in the 1890's, documents suggested that ethnic Chinese and Hispanics were competing for many of the same types of wage labor offered by Anglo owned businesses and that animosity had developed between the two communities (1989).

One type of labor that they were competing for was mining work. Ayres conducted an excavation of the Rosemont mine just southeast of Tucson in the late 1970's. These excavations were conducted on two distinct mining operations that operated at separate periods in time. Both excavations found little evidence of mining other than a few blasting caps with only 22 of the 28,000 artifacts recovered being mining related (1984: 542). Ayres notes that without historic documents, he might never have known that either site was associated with mining activities. The glass at both sites was primarily from whiskey and beer bottles, which allowed Ayres to date some of the site refuse and to cross check these dates with documented occupation of the site. The heavy concentration of alcohol at the site suggested to Ayres that the site was primarily male occupied given the taboos on drinking for women and children during the period, though he also found some evidence that both may have resided at the camp due to the discovery of several toys, hairpins and garter buckles (Ayres 1984).

The New Rosemont site was a mine that had operated between 1915 and 1921. Ayres found many artifacts of Mexican origin including medicine bottles labeled in Spanish and earthenware bowls. From documents he obtained, he found that the names of authority figures and technicians were exclusively Anglo while the rest of the labor force appeared to be mainly Hispanic in origin. He found no names of Chinese laborers in these documents (1984: 247). The Old Rosemont mining site was occupied between 1894 and 1905. Interestingly, Ayres found

several artifacts identified as Chinese in origin including porcelain rice bowls and opium pipes at this site. Curiously however, he found no evidence of any Mexican artifacts at all (1984: 131).

The cause of the ethnic animosity documented by the Listers appears to be a shift in demographic and sociocultural structures in the Tucson area following the arrival of the railroad in 1880. Chinese labor at the Rosemont site was preceded by their arrival as railroad labor. As many ethnic Chinese were working on the railroad and many Anglos arrived via the railroad, the area had a large influx of Chinese and Anglo-Americans. There were no documented cases of Chinese in Tucson prior to 1870 (Lister 1989), and in 1860, the Hispanic population of Tucson was over 70% of the total (Ayres 1990). With Hispanics and Chinese in competition for wage labor jobs such as those at the Anglo controlled Rosemont mines, it is likely that the two groups developed this antagonism due to the competition for this labor. Given the Rosemont data, it is clear that the more populous Hispanics had obtained the majority of this labor by 1921, though the lack of Hispanic labor at Old Rosemont will require further excavation of this issue.

Subsistence culture had also changed with these arrivals. Prior to the railroad, foods were of mainly local origin while afterward the archaeological evidence showed they were primarily imported in cans and bottles from elsewhere, mainly the northeastern United States (Ayres 1990). Anglo interests had wrested control of the majority of the means of production from Hispanics at this point, particularly in the areas of mining, ranching and agriculture. Subsistence had been altered due to the arrival of manufactured food on the railroad, which caused local production to drop due to increased competition. Capital had come from the Anglo east to invest in these opportunities and this had created a situation where the previously dominant Hispanic population was considerably minimized and often became subservient labor to the wealthy Anglo investors, while the Chinese laborers remained consummate outsiders to these dominant

cultural currents.

The Anglo migration to southern Arizona escalated with the arrival of the railroad but began with the Gadsden Purchase in 1853. A German immigrant named Fritz Contzen arrived in the area on a survey mission with a US military officer and decided to develop a ranch and stay. Randall McGuire was contracted by the Arizona Highway Department to do a salvage excavation at this abandoned ranch on the Papago Indian Reservation in 1965. Contzen and his Hispanic wife and children occupied the ranch between 1855 and 1877. Thus its occupation falls within the period just after the Gadsden Purchase through the Civil War and Confederate occupation until the time that the Union troops conquered the Apache and just before the railroad arrived.

Contzen operated the ranch as well as a trading post that traded with the Papago Natives. He also opened a silver mine in the area. The ranch became a stopping point on the stagecoach route between Guaymas, Mexico and Tucson, New Mexico Territory. Apaches attacked the trading post periodically, culminating in a raid on the ranch that deprived him of over 350 cattle and many horses. Contzen remained neutral when Confederate troops occupied the area in 1862 and when Union troops arrived later that year they imprisoned him at Fort Yuma until he signed an oath of loyalty to the Union. In 1871, in response to another Apache raid on cattle, Contzen's sons and some Papago Indians and Hispanics slaughtered an Apache village of mainly old people, women and children but were acquitted of murder by a federal court in Tucson (McGuire 1979). The Apache were defeated by the US military and put onto reservations in 1874 (Sheridan 1995). The ranch appeared to have been occupied until 1877 according to documentary and archaeological evidence though it became part of the Papago Indian reservation by executive order in 1874 (McGuire 1979).

Using the archaeological and historic data, McGuire demonstrates the economic changes of the time and postulates how many of the manufactured goods found at the ranch arrived via several overland trade routes. The European goods likely arrived in Veracruz and were transported overland to the Sea of Cortez (Gulf of California) and on to Guaymas where they were transported again overland to Tucson. Goods from the western US were shipped from San Francisco to Guaymas and then along the same overland routes. The Sonoran governor allowed duty free transport of goods bound for Arizona until 1865 when French troops occupied the port. Mexico regained the port a year later and the trade continued until 1872 when a 5% duty was imposed. Prior to the duty, goods through Yuma had cost nearly three times as much, but the railroad arrived in Yuma five years later and the transport through Guaymas ceased, cutting many trade ties with Mexico. Yuma received manufactured goods via the railroad and goods were then transported by land, though Apache and other native bands raided these shipments frequently. Manufactured goods from the east arrived primarily through Mesilla, New Mexico via Missouri or Texas and were then carried overland to Tucson (McGuire 1979). With their limited availability prior to the arrival of the railroad in Tucson, the manufactured goods found at the ranch were a luxury few could afford due to the costs and dangers associated with this trade, as opposed to the necessity they later became. Thus Contzen was at the forefront of the wealthy Anglo cultural current that migrated into the area in increasing numbers through the US colonial period.

This Anglo movement into southern Arizona created an economic boom. Capital poured into the area from Eastern financial institutions and bankrolled mining companies that imported heavy mining machinery across thousands of miles to reopen old Mexican silver mines and establish new ones (McGuire 1979). This pattern followed the general motif across the American

West seen in the later Rosemont sites, that being the “get-rich-quick-by-making-a-big-strike-in-mining mentality, epitomized by the California Gold Rush” (Ayres 1984: 539). Likewise, the Anglos came heavily armed with colt revolvers and with ten times as many soldiers as Mexico had in the area prior to the Gadsden Purchase (McGuire 1984). This created a military occupation of the area as well as Anglo economic domination.

Anglos controlled the capital in this economy and the 1860 census in Tucson shows that they had seven times as much monetary wealth as Mexican Americans despite having fewer numbers (McGuire 1979: 88). The period surrounding the US Civil War changed this for a short period as US troops started a war with the Apaches in 1861 whereby the troops were forced to withdraw, partially due to their need in the fight against the Confederacy (Sheridan 1995). The Apaches took this as a victory and increased their raids. Confederate troops arrived a year later to find that Tucson was the only town occupied by any non-native inhabitants, while only one mine was in operation between Tucson and the border. The Confederacy effectively created a trade blockade between Tucson and the Union states and Europe as the Union disrupted the normal trade routes, along with the usual Apache raids. Confederate soldiers were forced to live off local resources further depleting them. The local food situation had degenerated to the point that when Union troops reconquered the area, they were put on half rations (McGuire 1979).

The Union troops proceeded to imprison perceived Confederate sympathizers who did not resist their occupation, such as Contzen. This had a disproportionate affect on Anglos, as Hispanics were not seen as being partial to either side. Per capita income in the area had fallen 77% from 1860 to 1864, though Hispanics lost less per capita income and gained more property. This was mostly due to the fact that Hispanics were involved mainly in farming and small scale ranching while Anglos were involved in merchant and mining activities as well as trade for

subsistence which required military security of the area (McGuire 1979). This might help explain why Hispanic occupation was found only at the later Rosemont mining site, as they may not have been entirely forced into wage labor for subsistence by that point.

The area went into economic boom again with the arrival of more US troops who removed the Apache raiding threat and required many provisions. This allowed mining operations to resume and new mines opened to the south including Bisbee and Tombstone. It also meant that merchants and freighters received massive amounts of federal dollars to support the increased troop levels and Anglos dominated these industries (McGuire 1979). In 1869, the army needed nearly seven million pounds of corn or barley while local production of these crops totaled less than 4.5 million in the whole territory. The army awarded contracts for these subsistence items to the lowest bidders, usually the largest merchants not the local farmers and ranchers. Subsistence items were imported in large quantities and prices fell while the cost to produce local crops exceeded the price on the local market (Sheridan 1995: 107). This caused many local farms and ranches to fail which disproportionately affected the means of production of the now less dominant Hispanic population (McGuire 1979). New Anglo merchants continued to move to the area to support military and mining operations and this caused the Anglo population to rise while prices for manufactured goods fell, putting local mainly Hispanic productions out of business and into the wage labor marketplace over the duration of the early US colonial period.

Post-Contact Sites

The Hispanic population was not the only sociocultural group that lost its means of production due to US incursion into the Spanish Borderlands. Many natives were militarily forced onto reservations or lost their traditional means of subsistence due to Anglo American

economic activities. This often forced them to migrate in search of wage labor and this trend continued into the present day with nearly half of all aboriginal Americans becoming urbanites by 1970 (Dobyns 1975:155). Ethnohistorian Henry Dobyns documents the histories of several southwestern native groups and shows how their life ways were disrupted by US military and industrial incursions.

The Walapai natives of western Arizona were traditional horticulturalists who were militarily defeated by the US cavalry in the 1860's. The US terms of the defeat included settling at a reservation where they would be utilized as mining labor in lieu of more expensive Chinese labor. Many elected to find wage labor in ranching instead. The group became progressively more urbanized as ranching and mining industries required less of their labor (1975:165).

The Kaibab Paiutes at the Utah Arizona border were traditionally horticulturalists but a Mormon settlement built in 1864 complete with military fort deprived them of their traditional spring. This caused them to rely more heavily on hunting for subsistence, but wild game had to compete with Mormon cattle and the game eventually dried up. This caused the Paiutes to migrate into Mormon settlements in search of wage labor and/or charity (1975:168-9).

In the 1850's, Military posts on the Colorado River that were supplied by steamships disrupted the Cocopah of the Colorado delta. Members of the Cocopah became steamboat captains and began purchasing manufactured goods. By the time their labor occupations became obsolete in 1877 due to the railroad, they were already embedded in the capitalist economy. Thus they were forced to migrate to Anglo owned agricultural areas for labor (1975:163).

All three of these aboriginal groups were later given reservations by the Bureau of Indian Affairs. But Dobyns notes "the U.S. reserved lands for Walapais, Cocopahs and Kaibab Paiutes only *after* they had already lost control over aboriginal factors of production and perforce entered

the national economy as low-paid wage laborers" (1975: 177). Dobyns suggests that this policy was deliberate stating that

> "United States domestic colonial policy toward less populous Native American post-tribal but persistent cultural groups in the Southwest inhibited rather than fostered nucleated settlement when it allowed Anglo-Americans to seize Native American production factors. The United States in effect forced these Native American peoples out of entrepreneurial roles into a socio-economic status often very close to peonage" (1975: 177-8).

Thus it would seem that US military and economic strategies were designed to deprive the peoples who already resided in the Spanish Borderlands of their means of subsistence production. Though this was equally true with the Hispanic community, these less populated groups were more vulnerable to these strategies as they had less communal political power due to their smaller size. Dobyns notes that larger native communities such as the Pueblo were able to gain better terms for reservation living and were therefore more likely to maintain nucleated settlements. Regardless, the economic, military and colonial policy of manifest destiny was designed to populate the borderlands with Anglo Americans armed with capital and guns who would engage in both covert and overt operations designed to deprive the previous inhabitants of their means of production and force them into wage labor for Anglo productions.

Frontier Sites

Exploitation of these native groups did not of course begin with US colonialism. Although the physical Spanish and Mexican presence in the borderlands was never as great, its economic, military and cultural presence was no less profound and was also undoubtedly exploitative. Nowhere is this more telling than in the Spanish missions found throughout the US southwest.

Although several missions were established in southern Arizona prior to the US takeover,

and Tucson had been the main military presidio in the area for both the Spaniards and the Mexicans, Spanish control of the Tucson region was dubious at best. Prior to US arrival, Apache raids had depopulated the area on numerous occasions (McGuire 1979). The Spaniards had tried several times to open roads to the south or west to Alta California but Apache raids thwarted each attempt (Sheridan 1995). There were no adequate roads for trade in the area until 1847 and that road led to the east and west, not south into Mexico. The Spanish and Mexicans had not developed much mining in the area due to Apache raids and greater mining wealth further south, particularly in Zacatecas (McGuire 1979).

As what is now Arizona has had less archaeological excavations on their missions, and this is likely due to these historical circumstances, this historical excavation will move into the larger region of the Spanish Borderlands as the layers of time are unearthed and mined into the deeper past. The most robust archaeological work on missions is undoubtedly in what is now Southern and Central California. Of all the regions of Spanish empire developed by the missionization process, California is likely the best studied (Hoover 1989).

The mission system imposed by the Spanish in Alta California and elsewhere in the borderlands was designed by Spain and the Catholic Church to be an institutional instrument of acculturation geared toward pacifying natives and settling them into communities to become loyal subjects of Spain (Hornbeck 1989). “Spain undertook the single largest and longest program of enculturation ever attempted” (Hoover 1989: 395). The program often worked, but this was rarely due to the intended efforts of the institution. It was often rather due to a series of unintended consequences surrounding the Spanish migration into the region.

These institutions lasted in Alta California over a period of sixty-five years beginning in 1769 and ending in 1846, uncoincidentally around the time that Mexico gained independence

and the United States gained control over the Spanish Borderland region. When Mexico gained independence from Spain in 1821 after eleven years of war, they gradually set about secularizing the missions (Fontana 1994). The war cut production in both mining and agriculture, leaving the new nation with a debt of 76 million pesos to mainly foreign creditors and a treasury facing a state of chronic bankruptcy (Villegas et.al. 1995). By secularizing these religious institutions, Mexico found a way to save valuable state capital. They also expelled those loyal to Spain, which many padres often were. The missions had to fend for themselves as economic entities and they declined until the US gained control (Fontana 1994).

Though the missions were not initially "considered economic entities", they obtained free economic assets by proclamation of Spain and the Catholic Church including free Indian labor and Indian land (Hornbeck 1989: 425). Despite the fact that this scheme rested on "total contempt for culture and human and property rights of the Indians" (Castillo 1989: 391), the missions were an "evolving system that began as an acculturation institution and developed into a commercial one" (Hornbeck 1989: 432).

Kent Lighfoot states, "the cornerstone of the missionary enterprise in Alta California was a directed enculturation program designed to transform the population of pagan Native Californians into a peasant class of Hispanicized laborers" (2005: 59). The Natives were seen as *sin razon,* without reason, and it was necessary for the enlightened Spaniards to assist them in becoming reasonable, or at the very least Catholic. They engaged in promoting a program of scheduled and disciplined labor. Punishments for infractions against the work schedule and moral codes included whippings, stocks and leg chains (Lightfoot 2005). Baptized individuals were not allowed to leave the mission more than once a month to visit relatives and needed the padres' permission to leave. If they escaped, they were sought out and punished using the same

methods (Johnson 1989). Lightfoot notes that though scholars have debated what the form of this labor actually was, it was certainly not communal as has often been suggested, as the Natives did not control access to the means of production (2005). Thus the native labor in these mission constructs might be best described as a "form of forced communal labor", with elements of both communes and slavery (Lightfoot 2005: 66).

One of the central questions to mission scholars is "what initially attracted a native population that had evolved over thousands of years to a radically different ideology?" (Hoover 1989: 397). In other words, how did the Spanish go about accomplishing their colonial acculturation project? Ideological explanations have been offered by some such as Robert Hoover stating "the fantastic technology of the Europeans…must have impressed them and may have even been interpreted as a sign of great spiritual power" (Hoover 1989: 397). Kent Lightfoot notes that many scholars believe that the Natives were coerced by Spanish military prowess, or at direct gunpoint (2005).

Such explanations, though perhaps not entirely without merit, are less likely than economic and subsistence narratives. Lightfoot explains that conversion was supposed to be voluntary and that there were too many exceptions to the physical coercion explanation in the historical record. He notes that mission operators were excellent salespeople and recruiters. They exchanged food and goods with the natives and engaged in religious ceremonies designed to "dazzle" the local inhabitants (2005: 84). The very public spectacle of the church replete with elaborate paintings, silver crafts, incense and the ornate clothing of the priests may certainly have been appealing to the Native Californians, but a routinized workday, strict discipline, a lack of freedom, disease and wretched living conditions in the mission structures would likely cause most hunter-gatherers to think the mission was a "place to be avoided" (Lightfoot 2005: 86).

So what exactly would an economic explanation entail? In the case of the Santa Barbara area mission projects, John Johnson posits one possible explanation. Johnson notes that the local Chumash exchange system relied on bead money. The Spanish took advantage of this by introducing new kinds of beads. The Spaniards, having so many of these beads, were considered wealthy by the natives. The Spanish could also purchase labor and goods with these new beads. The sheer volume of beads brought by the Spanish undermined the local economy and local bead production ceased to exist and the Spaniards gained control of the economy (Johnson 1989).

Such an explanation seems quite inadequate, as the Chumash would still have access to their means of production, the ocean, the forest and the fields. Far more likely is what many other scholars suggest – that environmental changes brought about by the Spaniards altered the means of subsistence. Ed Castillo notes that the "colonists livestock devastated native food" (1989: 378). Lightfoot (2005), Hornbeck (1989), as well as Johnson to a lesser degree (1989), concur with this position. The livestock brought by the Spaniards trampled and devoured local plant foods traditionally gathered by the Chumash. They also drove off much of the wild game they hunted. Additionally, plants and weeds introduced by the Spaniards further disrupted these plant foods and thus the wild game. Lightfoot also suggests that new irrigation systems built by the Spaniards altered the local hydrology continuing to affect the local subsistence economy. A decree by the Spanish governor in 1793 terminated by force of arms the traditional field burning practices of the Chumash, which had helped their local wild plant foods to grow (Lightfoot 2005). Finally, the diseases introduced by the Europeans caused the local populations to decline rapidly and this caused local trade in subsistence goods and production to falter. Thus the missions' production of surplus goods aided them in the acculturation efforts by being the only

means of subsistence available to the Chumash population (Hornbeck 1989). Johnson acknowledges that this likely occurred after the initial bead explanation, noting that the Spaniards spiritual message would be accepted if it were accompanied by subsistence aid (Johnson 1989).

To test these economic hypotheses, Larson, Johnson and Michaelson decided to gather ecological data from the Santa Barbara area during the period when most Chumash had been documented as being missionized. Using dendrochronological and sea core data, Larson et.al. reconstructed the climatic conditions of the area between 1786 and 1803. What the data suggested was that there was extreme climatic variation during this period including warming sea temperatures and extensive droughts. This would suggest that the fishing and local plant foods, as well as other wild game would have declined and would not have been sufficient to sustain the traditional Chumash subsistence economy. Though Larson et.al. acknowledge that these droughts and sea warmings had happened previously in the more remote past, the Chumash had back-up subsistence strategies in the form of trade and political alliances to survive in these earlier lean times. These networks had been decimated by the Spanish arrival in the form of demographic, environmental and political disruptions due to the diseases and environmental changes brought by the Spaniards. Thus they suggest that this rapid missionization of the Chumash was actually a conscious adaptive strategy for survival by going to the missions for European agricultural products, cattle and domesticated animals (Larson, Johnson and Michaelson 1994).

According to this data then, it can be demonstrated that Spanish domination was not entirely predicated on economic, military and colonial populist policies as it was in the US case, or even ideological or spiritual grounds, but rather on an unintended altering of the physical

environment and demographics of native life ways. Still, the result was the same. The Chumash no longer controlled the means to their subsistence production and they were therefore forced to labor for the benefit of a foreign structure in exchange for a means to survive.

Contact Period

Spanish colonial projects of the frontier period clearly created a new economic and ecological landscape that aboriginal peoples had to navigate. Yet, when American anthropologists from the Bureau of American Ethnology set out to study the Zuni and Hopi Pueblo peoples of New Mexico and Arizona in the late 19th century, they did so under the guise that these societies must be studied before they were corrupted by outside influences. This anthropological trend lasted another fifty years as Ruth Benedict stated in the 1920's that she was glad to have studied Zuni culture before it was "gone" (James 1997:432). These anthropologists believed this unchanging pristine society was about to be polluted by American cultural influences embedded in an ever-increasing wave of westward US expansion, and in so doing they ignored nearly four hundred years of Spanish, Mexican, and even US history. The Pueblo peoples had been exposed to these many cultural currents since at least the sixteenth century and it had long since altered their life ways (James 1997, Parezo 1996).

Archaeologist Stephen James gathered archaeological and historical data in an attempt to debunk this myth of the unchanging societies of the Native Americans. He criticized these ethnographers and archaeologists from the early 19th century who portrayed the Pueblo society as being in a condition of stasis. James chronicled the changes in Pueblo dwellings, noting that rooms had increased in size since the prehistoric period but prior to these ethnographic studies and adobe bricks had been created in a style not seen in prehistoric times that was likely introduced by the Spanish. There were also often wooden doors to these rooms and these 19th

century ethnographers had suggested that this was an introduction that they themselves had brought to the Pueblos. Yet James states that a photograph prior to their expedition shows that wooden doors were already in use. Axes, hatchets and leather saddles were depicted in an engraving that predated these expeditions suggesting to James that these items had also been in use for quite some time. In fact archaeological and historical evidence shows that the Pueblo were involved in iron making activities in addition to using these tools prior to the American incursion (1997).

Subsistence activities had also changed with the arrival of the Spaniards. Prior to Spanish contact, the Pueblo peoples subsisted on a diet of corn, beans and squash. The Spanish had introduced a variety of Old World crops including wheat, barley and lettuce. Wheat was a particularly important crop for this modified subsistence economy and it's processing might have been one motivation to increase the room sizes of Pueblo dwellings. The Spanish also introduced the raising of livestock and this created the need for the construction of corrals and converted the Pueblo subsistence base from mainly agriculture to include a pastoral economy (James 1997).

Many of these Spanish ideas and artifacts were adopted by the Hopi Pueblos voluntarily as initial Spanish missionary incursions into their territory in the 17th century did not carry the threats of military action against them as elsewhere. As the Spaniards increased their presence, Hopis and other groups from the Spanish province of Nuevo Mexico participated in the Pueblo revolt of 1680 that expelled the Spaniards until 1692. Although the Spaniards reconquered the region militarily, their political control meant little to the aboriginal residents as the region did not attract Spanish colonists in great numbers as it later did with US colonists. However, the effects of this contact with the Spanish caused many Pueblo peoples to be uprooted from their native villages and fractured their political loyalties (Parezo 1996). It also introduced smallpox,

which devastated populations across the New World.

Documented cases of smallpox among the native peoples in what is now the southwestern US appear frequently in the early to mid 19th century. Explorers and US military commanders found Hopi villages devastated by smallpox in 1853 with one village containing only the chief and one other able bodied man (Parezo 1996: 255). These documented cases have caused many anthropologists to assume that smallpox had not adversely affected the native populations of the southwest before about 200 years ago. Though material and documentary evidence on the subject are somewhat scarce, Steadman Upham argued that given the lack of resistance to smallpox in other native populations, sufficient trade with other regions and a demonstration that the southwest had an ideal climate for smallpox, infections had conceivably taken place much earlier, perhaps even before Spanish contact in the proto-historic period. Upham modeled the way in which smallpox epidemics occur and are transmitted across populations to support this argument (1986).

Both Upham and Henry Dobyns (1991, 1983) suggest that given the transmission methods of smallpox and other Old World diseases, and the trading networks between Native populations across the Spanish borderlands and in the New World in general, a likely "hemispheric pandemic swept New World populations in the years between A.D. 1520 and 1524" (Upham 1986: 123). This pandemic may have caused a depopulation ratio of up to 22:1 over the course of the Spanish colonial period (Dobyns 1996: 544). Although archeological evidence for such a pandemic is scarce, Dobyns suggests that the pandemic would have happened in such a short time span as to make the "thin residual veneer that was deposited and preserved" difficult to find (1996: 546).

If such a shift in demography had occurred during the proto-historic period, the societies

that the Spaniards encountered during the contact period would have been considerably diminished in population, and thus military and economic prowess from what they had been in the prehistoric period. Regardless of the overall timing and extent of this demographic decline, there is little doubt that the introduction of Old World diseases that New World populations had no biological resistances to, caused profound changes in their social, military and economic structures that made them vulnerable to Spanish and later US colonial projects.

Proto-Historic Period

The diseases and items the Spaniards had brought may have already drastically modified the proto-historic world of the Spanish Borderlands that they had influenced, but not yet made contact with. The peoples the Spaniards encountered in this borderland region were in many ways quite different from those they had conquered in the Valley of Mexico and Peru. Despite lacking some of the so-called sophistications of 'civilization' that the Aztecs and Incas had, many of the peoples of the borderlands proved surprisingly resistant to the Spanish economic, military and ideological incursions. Nowhere was this more evident than with the Apache, who consistently disrupted Spanish, Mexican and US colonial projects from their outset until they were conquered by the US military.

The Apache were a people who had thrived on Spanish contact as raiders of colonial and native communities. Other local native groups including the O'Odham, Pima and Papago, were often forced to ally themselves with the Spaniards in reprisals against the Apache (McGuire 1979, Sheridan 2006). Yet, Apache raiders were primarily mounted on horseback and horses were not an animal native to North America since at least the last ice age. As evidence of Spanish contact with the Apache prior to their procurement of the horse is dubious at best, and no historical or archaeological evidence has been found concerning the method by which the

Apache had attained these horses, the origins of the Apache culture which the Spanish encountered in what is now Arizona remains an enduring mystery of the proto-historic period (Cordell 1989, Gregory 1981, Hilpert 1996, McGuire 1979, Sheridan 1995, 2006, Wilcox 1981b).

Wilcox and Masse define the proto-historic period as being between prehistory and the permanent occupation of the Spanish, roughly from 1450-1700 A.D (1981). The details of this period are often murky and this is particularly true regarding the Apache. Early Spanish accounts from the mid 16th century suggest the area the Apache later occupied during the Spanish and US colonial periods was uninhabited (Hilpert 1996). Other Spanish accounts from slave raids in the mid-1600's suggest that the Apache were dog nomads hunting buffalo in the plains north of New Mexico who later migrated further into the southwest (Wilcox 1981b). Many linguistic anthropologists believe the Apache came from somewhere in the far north and had migrated south during much earlier prehistoric times. Though some Apaches accept linguistic anthropological accounts of such northern origins, their creation myth is rooted in the mountains of the southwest (Hilpert 1996). So it would seem that no one is entirely certain where the Apache came from and definitive archaeological or historical evidence of their origins has not been found (Cordell 1989, Gregory 1981, Hilpert 1996, McGuire 1979, Sheridan 1995, 2006, Wilcox 1981b).

Without any concrete knowledge of what Apache life ways and origins were prior to Spanish contact, what layers of historical archaeological sediments did they exist in? If the Spanish did encounter the Apache as dog nomads in northern New Mexico and the accounts of the Arizona area being uninhabited are believed, they either obtained horses during contact and migrated south in a post-contact context, or migrated south and then obtained horses in a post-

contact context. If the linguistic and creation myth as having a long history in the southwest are to be believed, then they obtained horses in a proto-historic or contact context and were in Arizona when the Spanish accounts failed to locate them and also misidentified them north of New Mexico. Though according to Fontana's historic archaeological schema they cannot be simultaneously proto-historic and post-contact, they may have obtained horses in a proto-historic context elsewhere and migrated to the southwest in a post-contact context after an undocumented contact somewhere – so perhaps they might have been considered a post-proto-historic group at documented contact.

Whatever the case, it has become a point in this excavation at which both the historic and archaeological record becomes increasingly obscured in many places. Spanish historical accounts of contact are often quite vague and archaeological evidence becomes increasingly scarce. Still, what does remain becomes increasingly valuable as a window into past events and societies, and these remains appear to be telling anthropologists such as Eric Wolf and archaeologists such as Stephen James that a 'pristine' society untouched by global sociocultural currents has not existed since at least 1500 AD (James 1997).

Concluding Synthesis

As archaeological theory has often been informed by anthropological theory, particularly in the US, it is not surprising that the notion of a 'pristine' society untouched by Europeans has influenced American archaeology. Archaeologists have often used ethnographic analogies with modern societies to study American prehistory (Trigger 2006). But the obsession with locating a society untouched by global forces is an anthropological El Dorado and the utilization of modern cultures in speculations on prehistoric ones designed to create 'scientific laws' is the archaeological equivalent of the search for the Fountain of Youth. Modern societies can be

utilized to discover the past, but to suggest that they adequately represent or inform us about prehistoric societies to create scientific laws after more than five hundred years of global contact would be absurd.

Eric Wolf had argued during the search for these laws in the late 1960's that "anthropology needed to discover history, a history that could account for the ways in which the social system of the modern world came into being and that would strive to make analytic sense of all societies" (1981:ix). Wolf demonstrated that all human societies are and were interconnected and that cultural construction occurred within these interactions. This is true of present societies and was equally true in the past (1981). It would appear that perhaps an endeavor to generate meaningful archaeological conclusions about culture change would rest with both history and archaeology equally.

In the course of this historical archaeological excavation of the Spanish Borderlands, several underlying themes have become apparent. Migration of certain sociocultural constructions, such as the US capitalist economy, influenced and disrupted the economic and sociocultural patterns of those it contacted, both Native and Hispanic. Diffusion of sociocultural characteristics through trading networks from distant societies, such as Spanish foods and tools, altered local production techniques, such as those of the Pueblo. These introductions to the local sociocultural landscape may have deprived certain groups of their means of production – such as the Walapis and Cocopahs. But it may also have caused others to find new ways of adapting to these landscapes while maintaining autonomy – such as the successful Apache engagements in horse raiding activities. The population with the most members, or those who possessed the ability to control the means of production through force or ideology – such as the Spanish and later US Anglos – often formed these dominant cultural currents. But such currents may have

been rejected by some, such as the Chinese, or taken piecemeal by others, such as the Pueblos. Finally, the consequences of the environment, including imported diseases, had profound effects on the demographics of societies, such as the Chumash. And without a sufficient population, a culture's ability to reproduce itself is severely inhibited.

From this excavation then, what can be said about culture change is that as cultures collide, they intermingle and create new blended cultures. The prominent currents are those that have economic, technological, military, environmental or demographic dominance. These currents may control the means of production through overt force or covert ideologies, or perhaps through unintended environmental consequences regarding their presence. This appropriation of the means of production is to the detriment of other less dominant currents. These less dominant currents may persist, and may adapt new life ways, but they only persist as long as they exist in minds of those who would survive and identify themselves with such an entity – and avoid the enculturation process into the dominant currents.

These themes or statements about culture change may or may not be considered law-like, or even scientific. But archaeology and history are equally enigmatic disciplines. Past peoples did not necessarily record events or deposit materials so that these disciplines could know them scientifically in the future. And if they did, there was no way for them to know how the scientific processes of time and events might degrade or destroy such a record, forever biasing its remnants. Historical and archaeological scholarship will therefore always be inherently incomplete. However the window on the past provided by the compliment of archaeological and historical data is the best either discipline has in recreating what the past may have been – economically, politically, demographically, militarily, ideologically, socially and culturally. What becomes clear from a multi-disciplinary inquiry is that all of these factors influence how

cultures change and how societies rise and fall on the oceans of time and space.

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