

# REVEALING CULTURAL STATUS AND ETHNIC DIFFERENCES THROUGH HISTORIC ARTIFACT ANALYSIS

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## ABSTRACT

Cross site comparisons utilizing bottled products consumption patterns, and ceramic economic indexing data from artifact assemblages representing refuse deposits of late 19th- and early 20th-century historic sites has revealed identifiable patterns reflecting the consumer behavior and lifestyles of three distinct social groups.

### Introduction

Historic archaeologists often deal with artifacts excavated from the earth in the form of burned and broken refuse. Many wonder why anyone would be interested in, never mind get excited over, a pile of trash. Yet yesteryear's garbage contains a wealth of information on the lifestyles of people who used these discarded items. It is the object of this paper to provide a brief introduction to some types of historic artifact analysis and explain how differences in lifestyles of varied social, ethnic, and economic groups can be detected from their trash.

The purpose of historic artifact analysis is not to reconstruct the past through detailed artifact descriptions or to pay tribute to some notable historic event or person, but to reveal broad trends and patterns that can expand our understanding of the cultural processes that affected the lives of people during earlier times. The focus is on identifying and explaining the differences in the relationships between groups of people and the larger culture.

Functional pattern recognition and consumerism studies provide a background appropriate for the examination of various aspects of human behavior during the later 19th and early 20th centuries through analysis of refuse. These approaches are particularly well suited to large collections and to the study of dump materials. Essentially, both orientations rely on a systematic approach to material culture studies as opposed to a particularistic one.

Based on methods developed by Stanley South and others, one of the ways that this type of understanding can be accomplished is through pattern analysis which allows the historical archaeologist to develop functional artifact patterns or profiles (South 1977). In order to determine the types of activities which might be represented by an archaeological collection, artifacts are divided into functional categories or groups. This division allows for the detection of relationships between functionally defined artifact groups at a generalized level of analysis, facilitating the definition of broad patterned regularities (South 1977:110). Analysis at this level is intended to define functional patterned regularities before variation in the norm can be detected through cross site comparison.

South's classification system relies on eight artifact groups. These eight groupings are appropriate for sites that date before the Civil War; however, the quantity, variety, and availability of material items greatly increased after the Civil War, resulting in the development of a consumer oriented culture by the end of the 19th century (Thomas 1982; Gordon and McArthur 1985; Spencer-Wood 1987:369; Schlereth 1991). This necessitates the use of a more complex artifact classification system. A system of 20 artifact groups has proven successful for various sites in southern California (Van Wormer 1991a; 1991b; Van Wormer and Schaefer 1991; Phillips and Van Wormer 1991; Van Wormer and Manley 1994; Van Wormer and Cheever 1995). These artifact groups are listed and defined on Table 1.

Functional artifact pattern recognition and consumerism studies have indicated people buy things for what they mean culturally, as well as for their functional purpose. Consumption is one of the important ways of signifying membership in a community unit, particularly in class, status, and ethnic groups, and, therefore, is an important reflection of lifestyle. Some units, known as reference groups, exert a greater dominance on an individual's values. Since individuals are influenced by the groups to which they belong people can follow a group lifestyle. There will be variability in the group lifestyle as practiced by its individual members; however, there will be more similarity among individuals within the group than between groups (Henry 1991).

The study of consumer behavior requires a comparative database so that the patterns which characterize various social classes, ethnic groups, historical periods, and geographical regions can be compared (Lee Decker 1991). The primary cultural unit of comparison for historic archaeology has traditionally been the household, which is defined as a domestic residential group consisting of the inhabitants of a dwelling or set of dwellings and appears as a discrete group in historic documents (Henry 1987a; 1987b). The household then includes all the residents in the group who could have contributed to primary artifact deposits within the premises' yard or another defined boundary during a single time period (Spencer-Wood 1987:2). These deposits are generally classified as privies, wells, or household dumps.

Households combine to form the larger reference groups: social class and ethnic group. This commonality of group membership allows for the comparison of large numbers of households in a consistent manner (Henry 1987a; 1987b). If a sufficient database has been developed, research can focus on analytical units larger than a single site, making comparisons (intersite) within and between social groups possible (Henry 1987). Intersite comparisons are used to assess the range of variation which may be present between groups and between households to help define shared group behaviors (Spencer-Wood 1987:7-8).

With this approach, archaeological refuse deposits provide information regarding the definition of specific consumption behavior patterns; what has been defined as consumerism. Trash-filled privies, wells, and pits often contain artifact assemblages representing small, temporally and spatially distinct patterns of different households. A neighborhood dump should define a somewhat larger pattern, and a municipal dump, a still larger unit of comparison (Dickens and Crimmins 1982:106).

### Functional Artifact Profiles

Previous research identified functional artifact patterns characteristic of assemblages representing distinct reference groups in southern California during the late 19th and early 20th centuries which include middle and upper middle class urban households, small town merchant and working class households, and rural farmstead communities. Building materials and tin cans were eliminated from the artifact totals used to develop these patterns because the quantities of these artifacts varied drastically between sites due to differential preservation.

In order to develop functional artifact profiles, artifacts are classified according to the functional categories or groups presented on Table 1. Artifacts in each group were quantified by estimated minimum number and the amount converted into a percent of the total number of artifacts for the deposit. The purpose for analysis at this level was to define functional patterns so that variations in the norm can be detected through cross site comparison. Results can be presented graphically on a bar graph as a functional profile of the assemblage. An example is the profile for the 1908-1913 San Diego City Dump shown in Figure 1. Consumer items dominate at 38 percent, followed by kitchen items at 30 percent, garment items at 12 percent, household items at 8 percent, hardware at 5 percent, personal items at 2 percent, and other activity groups making up the remaining 5 percent. The dominance of both kitchen and consumer items is indicative of household trash. Assemblages from commercial establishments, especially restaurants and saloons, are often dominated by consumer items, with other activity groups only minimally represented.

In Figure 2 the activity profile of the 1908-1913 San Diego City Dump has been compared to profiles of different types of commercial establishments. These include a tavern from Encino, California dating circa 1890 (SRS 1980), a feature from a doctor's office or pharmacy located at the Hotel Del Corona in El Cajon, California dating circa 1920 (Van Wormer and Manley 1994), a feature from a saloon at the Hotel Del

Corona dating circa 1912, two other features from the Hotel Del Corona itself dating circa 1890 to 1900 (Van Wormer and Manley 1994), and a profile from four features (6, 8, 15, and 20) from the Golden Eagle Hotel in Sacramento dating circa 1865 to 1880 (Praetzellis et al. 1980). Two general patterns are apparent. The saloon and pharmaceutical features are dominated by consumer items which constitute about 80 to 90 percent of each assemblage with all other activity groups constituting less than 20 percent. The hotel features show a different pattern. Consumer items make up 40 to 50 percent of the assemblage, with kitchen items constituting 10 to 20 percent. All other activity groups constitute less than 10 percent of the artifacts. The San Diego profile most closely resembles those of the hotel features. As will be seen in additional discussions, the hotel feature's percentages also closely parallel urban household profiles. Evidently hotel refuse contains items from the guests and boarders occupying the rooms as well as kitchen refuse, giving more of a domestic household nature than refuse from more specialized commercial establishments such as saloons, taverns, or pharmacies.

In Figure 3 the activity profile of the San Diego 1908-1913 City Dump is compared to profiles of assemblages representing urban, small town and rural households dating circa 1890 to 1920 that included a combined assemblage from five rural farmsteads in San Diego County (Van Wormer 1991a), an upper middle class neighborhood in Santa Ana, California (Brock 1985), a mixed neighborhood of working and middle class residents in Phoenix, Arizona (Henry and Garrow 1982:183-188), a small town working class neighborhood in Ventura, California (Bente 1975, 1976), and two small town assemblages representing a merchant's and a hotel manager's household from El Cajon, California (Van Wormer and Manley 1994). In addition, a profile from refuse features from a community of Mexican miners at Hedges/Tumco in present day Imperial County was included (Burney et al. 1993).

As with the commercial assemblages, data from these excavations was also quantified according to the methods used for the San Diego City Dump. Data from each project was selected only from features dating circa 1900 to 1920, so that the patterns would be contemporary with that of the San Diego assemblage. The profiles for Phoenix and Santa Ana show considerable consistency. Consumer items dominate at 52 and 58 percent, respectively. Kitchen items follow at 20 and 25 percent. The San Diego assemblage activity profile most closely resembles the patterns presented by Phoenix and Santa Ana with consumer items at 38 percent of the assemblage followed by kitchen items at 30 percent.

The small town assemblages of Hedges, Ventura, and the hotel manager and merchant households from El Cajon also represented a distinct pattern. Consumer items constitute approximately 20 to 30 percent of the assemblages. Kitchen items are more erratic, ranging from between approximately 15 to 35 percent. They differ significantly from the urban assemblages of San Diego, Santa Ana, and Phoenix where consumer items constitute approximately 40 percent or more of the assemblage and make up a much greater portion of the artifacts than do kitchen items.

Table 1. Activity Groups Used In Artifact Pattern Analysis.

<i>Consumer Items Group:</i> Items containing products purchased and consumed on a regular basis	Musical instruments	<i>Coins Group:</i> All coinage and tokens
Bottles	Eye glasses	<i>Building Materials and Architecture Group:</i> Construction materials
Jars	Toiletry items (toothbrush, razor, comb, hairbrush, etc.)	Nails and spikes
Tin cans and other tins	Smoking pipes	Window glass
Bottle caps, can lids, and related items	<i>Furniture Parts Group:</i> All furniture parts	Construction hardware
<i>Kitchen Group:</i> Food preparation and serving	Upholstery tacks	Door locks and parts
Stove parts	Springs	Electrical hardware
Flatware	Cabinet hinges	Counter glass
Canning jars	Drawer pulls	Asphalt
Canning jar lids and related items	Scroll trim	Plaster
Jelly tumblers	Trunk parts	Concrete
Glass tableware	Bed and other furniture frames and springs	Ceramic drain pipe
Ceramic kitchen and tableware	<i>Hardware Group:</i> Miscellaneous hardware not included in a specific group	Ceramic flue lining
Cooking items	Bolts and nuts	<i>Machinery Items Group:</i> All machine parts except agricultural implements
Butchered bone	Screws	<i>Forge Materials Group:</i> All forge, furnace, and stove wastes
Shellfish	Washers	Coal, clinkers, and slag
Seeds	Chain links	<i>Agricultural Implements Group:</i> All farm machinery
<i>Household Items Group:</i> Daily household maintenance	Metal bands and strapping	Plow parts
Household ceramics	Cotter pins	Harrow parts
Household glassware	Rivets	Chain belting
Lamp parts	Baling wire	Cultivator parts
Light bulbs	Wire fencing	Mower parts
Medical items	<i>Tools Group:</i> All hand tools	Hay rake parts
Batteries	Gardener's tools	Threshing machine parts
Miscellaneous household items	Carpenter's tools	Manure spreader parts
<i>Garment Items Group:</i> All clothing items	Mason's tools	Tractor parts
Shoe parts	Mechanic's tools	<i>Other Occupations Group:</i> Specialized occupation items
Cufflinks	Jeweler's tools	Farmstead items
Collar stays	Artist's tools	Mining items
Hat and scarf pins	Other miscellaneous hand tools	Factory items
Strap slides	<i>Livery Items Group:</i> Horse and horse-drawn vehicle items	<i>Unique Items Group:</i> Items not included in other groups
Buttons	Bridle parts	<i>Unidentified Metal Group:</i> Unidentified metal fragments
Garter clasps	Saddle parts	<i>Unidentified Items Group:</i> Items that cannot be identified
Hook and eyes	Harness parts	<i>Intrusive Items Group:</i> Items intrusive to a discrete dated deposit
Suspender clasps	Horse shoes and nails	
Straight pins	Wagon parts	
Snaps	Buggy parts	
Buckles	<i>Munitions Items Group:</i> All firearms and related items	
Clothing rivets	Bullets, cartridges, musket balls, and shotgun parts	
<i>Personal Items Group:</i> Belonging to a single individual		
Watches		
Jewelry		
Toys and gaming items		

The remaining differences in the artifact patterns are exhibited between the rural farmstead and the four urban assemblages. In Figure 4 the artifact assemblage from the San Diego City Dump has been compared to the combined rural artifact profile and profiles from four other San Diego county rural assemblages that date circa 1900 to 1930. These include: The Israel-Taylor farmstead near Escondido (Van Wormer and Schaefer 1991), SDI-5532H, a farmstead assemblage from Woods Valley near Valley Center, the combination of two other assemblages from Woods Valley, SDI-5528H and 11268H (Van Wormer 1990); and an assemblage from the Schott farmstead on Otay Mesa in San Diego County (Phillips and Van Wormer 1991). Some differences are now apparent. In the rural assemblages kitchen items are dominating the assemblages or making up equal portions with consumer items. In no case are rural assemblages dominated by consumer items as are the urban assemblages. Hardware is represented by higher percentages in the rural assemblages of Woods Valley, Otay, and the combined rural sites profile.

In summary, functional artifact profile analysis has defined distinct patterns characteristic of specific social or reference groups. Middle and upper middle class urban households are dominated by consumer items, which make up over 35 percent of the assemblages, followed by kitchen items, that constitute between around 20 to 25 percent of the assemblages. The remaining activity groups generally make up 10 percent or less of the artifacts (Van Wormer 1991). The small town working class pattern is dominated by both kitchen and consumer items that make up between 30 and 40 percent each of the assemblages (Van Wormer and Manley 1994). For the rural site pattern, kitchen item frequencies are higher than or equal to those of consumer items and consumer items make up less than 20 percent of the assemblage (Van Wormer 1989, 1991; Van Wormer and Schaefer 1991; Phillips and Van Wormer 1991).

### Bottled Products Consumption Patterns

Bottled products consumption patterns have also proven useful to define site function and social group affiliation (Van Wormer 1983b; 1991a; Blanford 1988). Relative frequencies of

bottled products from the San Diego assemblage were compared to those of the other assemblages, except Phoenix, on Table 2. The Phoenix bottle analysis was not used because the manner in which it was presented did not allow cross site comparison. In Figure 5 relative percentages of beverage bottles are compared. Products represented by these bottles were predominantly alcoholic. The urban and small town assemblages are higher in percentages of beverage bottles, which range from 35 to 70 percent, than the rural sites where beverage quantities are less than 30 percent. On Table 3 and in Figure 6 the San Diego profile is compared to those of the combined rural artifact pattern and the four other rural sites. Here the dissimilarity between the urban household assemblages and the rural household bottled products consumption patterns is more obvious. No rural farmstead profile has a beverage bottle value above 28 percent.

Culinary bottle product consumption patterns have proven useful in providing some indication of ethnic dietary preferences (Van Wormer 1983a:63). On Table 4 and in Figure 7, culinary bottled product assemblages from sites of well-defined ethnic identities are compared to the San Diego assemblage. Sites used include refuse from the foundation units of the Encino Roadhouse, Santa Ana, Encino Roadhouse Features 1 and 3, the Pio Pico Adobe in Whittier, and the Diaz Adobe in Monterey. The Encino foundation units and Santa Ana represent Anglo-American culinary traditions (Van Wormer 1983a; Elliott 1985). The other sites represent southern European and Hispanic populations. The roadhouse features represent a Basque population, while the Pio Pico and Diaz adobes were occupied by Mexican Californio families (Van Wormer 1983a; 1983b; Felton and Schulz 1983).

The San Diego, Santa Ana, and Encino foundation unit assemblages resemble each other and differ from the other three sites in the wide variety of products and their dominance by packer lip, club sauce, and catsup bottles. These products make up 10 percent or less of the southern European-Hispanic sites. These sites exhibit far fewer products and are dominated by spice-pepper sauce and olive oil, which constitute 4 percent or less of the Anglo-American culinary bottle assemblages.

Table 2. Cross Site Bottled Products.

Product	San Diego		Santa +Ana		Ventura		Rural		Hedges		Hotel Mngrs		Merchant	
	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%	NO	%
Beverage	1169	38	231	48	104	41	105	24	150	71	56	48	259	35
Culinary	520	17	41	9	35	14	64	15	20	10	19	16	222	31
Medicinal	679	22	148	32	80	31	146	34	7	3	27	23	140	19
Household/														
Toiletry	245	8	13	3	17	7	25	6	3	1	4	3	64	9
Unidentified	491	15	39	8	18	7	53	12	31	15	12	10	45	6
Other	0	0	0	0	0	0	37	9	0	0	0	0	1	0.1
TOTAL	3104	100	472	100	254	100	430	100	211	100	118	100	731	100.1

Table 3. Rural Cross Site Bottled Products Consumption Pattern.

Product	San Diego	Valley Rural	Center	Otay	Sdi-5532	Israel
Beverage	38	27	28	16	21	22
Culinary	17	16	15	18	43	18
Medicinal Household/Toiletry	22	37	20	40	7	20
Unidentified	8	7	0	5	29	11
	15	13	37	20	0	29
TOTAL	100	100	100	100	100	100

Table 4. Cross Site Culinary Products Consumption Patterns.

Product	San Diego	Encino Foundations	Santa Ana	Encino Fts 1 & 3	Pio Pico	Diaz
Worcestershire sauce	5	17	5	5	0	0
Spice	2	0	2	0	0	0
Pepper sauce	2	0	2	52	75	2
Mustard	2	0	0	10	0	0
Milk	5	0	7	0	0	0
Flavoring extract	5	0	2	0	0	17
Catsup	14	33	15	0	0	0
Condiment	4	0	5	0	0	0
Lemon juice	1	0	0	0	0	0
Olives	2	8	0	0	0	0
Marmalade-jam-preserves	2	0	0	0	0	0
Salad dressing	5	9	7	0	0	0
Chipped beef	6	0	0	0	0	2
Olive oil	50	0	3	23	17	41
Vinegar	50	0	3	0	0	4
Malted milk	4	8	7	0	0	0
Packer	32	25	42	10	8	0
Albuminized food	.50	0	0	0	0	0
Cheese	2	0	0	0	0	0
Juice	.50	0	0	0	0	0
Unidentified	5	0	0	0	0	0
Wide mouth jar	1	0	0	0	0	0
Preserved fruit	0	0	0	0	0	34
TOTAL	100	100	100	100	100	100

In conclusion, bottled product consumption patterns indicate that urban and small town assemblages are generally higher in percentages of beverage bottles than collections representing rural farmsteads, where these types of containers are usually less than 30 percent. Culinary bottle assemblages that have a wide variety of products and are dominated by packer lip, club sauce, and catsup bottles are indicative of an Anglo-American dietary tradition. Assemblages representing Hispanic or Southern European populations tend to have a limited variety of bottled culinary products and are dominated by spice and olive oil bottles.

### Ceramic Economic Scaling

Ceramic economic scaling is a method of determining the relative value of an assemblage of ceramic tableware. The method is based on an index developed from the cost relationships of decorated tableware during specific time periods (Miller 1980). The value of decorated ware is expressed in relation to a value of 1.00 representing the least expensive undecorated ware at a fixed point in time. For example, a vessel with an index value of 4.00, costs four times as much as the contemporary undecorated ware with a value of 1.00 (Miller 1980; Henry 1982).

An index value for an entire assemblage is calculated by multiplying the number of vessels for each ware type by its index value and summing the products. The results are then divided by the total number of vessels to obtain a mean economic value for the assemblage (Henry 1987). The index values of different assemblages can be compared to each other to gain insights into differences in buying practices as well as the economic status of the populations that are represented by the artifacts. The analysis in this discussion used indices developed by Henry for wares sold between 1900 and 1909 (Henry 1982:325).

Results of ceramic price scaling for San Diego, Santa Ana, rural San Diego County, Phoenix and the El Cajon assemblages are shown in Figure 8. Data for the Ventura assemblage was not presented in a manner that allowed this type of analysis. San Diego's ceramic tableware assemblage has the highest mean index value at 2.44. This was significantly higher than the remaining assemblages. Santa Ana and Phoenix fall closely together with mean index values of 2.2 and 2.19, respectively. Values for the rural and small town working class assemblages range between 1.5 and 2.0. In Figure 9 the values for the San Diego assemblages were compared to those from the four rural sites and the combined rural assemblage. With only one exception, all rural sites have a ceramic index value of 1.6 or lower.

The urban assemblages, therefore, reflect a considerably higher economic status than do ceramic tableware from rural farmsteads. The San Diego assemblage is significantly above any of the others, indicating a very high standard of living for the city's citizenry. This conclusion becomes even more significant when it is considered that the San Diego assemblage contained considerable quantities of refuse from the city's commercial district, which would have contributed high levels

of undecorated wares from hotels, bars, and restaurants which brought down the value of the assemblage from what it would be if only ceramics from households could be segregated out. The index value may actually understate the standard of living of San Diego households.

### Conclusions

In conclusion, patterns reflecting consumer behavior and lifestyles of three distinct reference groups can be identified through activity profile analysis, bottled products consumption, and ceramic economic indexing.

Middle to Upper Middle Class Urban Sites have the following characteristics:

1. Consumer items, consisting chiefly of bottled products, constitute 40 to 60 percent of the artifact assemblages.
2. Ceramic Index Values are 2.1 or higher.
3. Beverage bottles constitute approximately 40 to 50 percent of the bottle assemblage.

Rural sites are characterized by:

1. Artifact assemblages in which kitchen items make up 20 to 50 percent of the activity profile and either dominate the assemblage or are generally equal to the value of consumer items.
2. Consumer items constitute less than 20 percent of the assemblages.
3. Ceramic Index values of around 1.5.
4. Bottle assemblages in which beverage bottles constitute less than 30 percent.

Small Town Working Class Assemblages are characterized by:

1. Kitchen and consumer items range between 15 and 35 percent, constituting roughly equal portions of the assemblage.
2. Ceramic Index Values of 1.5
3. Beverage bottles constituting 35 to 50 percent of the bottle assemblage, thereby more closely resembling urban than rural drinking patterns.

In addition, cross site comparison of functional artifact profiles has shown that commercial establishments such as saloons, restaurants, and pharmacies are dominated by consumer items which constitute between 80 and 90 percent of the assemblages, while all other activity groups make up less than 10 percent of the artifacts. Hotel assemblages, on the other hand, present activity profiles that more closely resemble those of urban households. Cross site bottled culinary product consumption patterns have indicated that assemblages with a wide variety of products dominated by packer lip, club sauce, and catsup bottles are indicative of an Anglo-American dietary tradition. Assemblages representing Hispanic or Southern European populations tend to have a limited variety of bottled culinary products and are dominated by spice and olive oil bottles.

Finally, it should be stated that ceramic economic scale indexes that are significantly below that of urban sites undoubtedly reflect a difference in economic status between middle class urban and small town working class groups; however, this may not necessarily be the explanation for the comparatively lower value of rural site indexes. Farm life differed drastically from urban existence and direct comparisons may not be appropriate. Rural farm communities centered around one room country schools, a post office, and a country store were the dominate form of community in San Diego County and much of southern California between 1870 and 1940. A particular rural community culture pattern existed (Van Wormer 1986a; 1986b; Van Wormer and Schaefer 1991; Phillips and Van Wormer 1991). These communities were occupied by people who lived within well-defined geographic boundaries, shared common bonds, and cooperated to solve common problems (Fuller 1981). As a result, they had different needs, priorities, and cultural values than their urban neighbors, which dictated how their money was spent.

One of the farmer's major economic needs was to improve and maintain the farm's physical plant, including construction and maintenance of dwellings and outbuildings, and purchasing and maintaining livestock and equipment (Thomas 1876). This economic necessity was also tied into rural cultural status values. Whereas an urban dweller's status may have been reflected in the quality of a table setting displayed while entertaining guests, the farmer's status was reflected in well-maintained equipment and healthy stock. In the kitchen, a neat table and well prepared food was more valued than fine china to eat it on. Indeed, fine china and elegant silver may have been seen as wasteful and extravagant (Wright 1879:161). These attitudes undoubtedly played a part in the consumption patterns of farmers resulting in a decrease in the economic ceramic scaling index value for rural farm assemblages when compared to middle-class urban sites.

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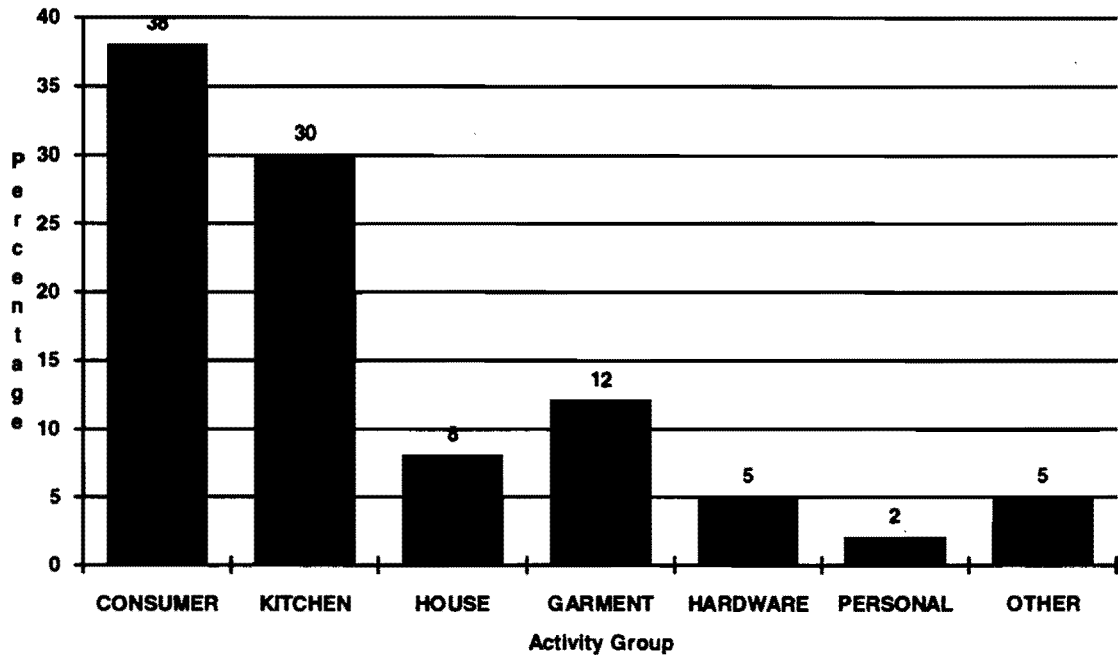


Figure 1. San Diego 1908 - 1913 city dump activity profile.

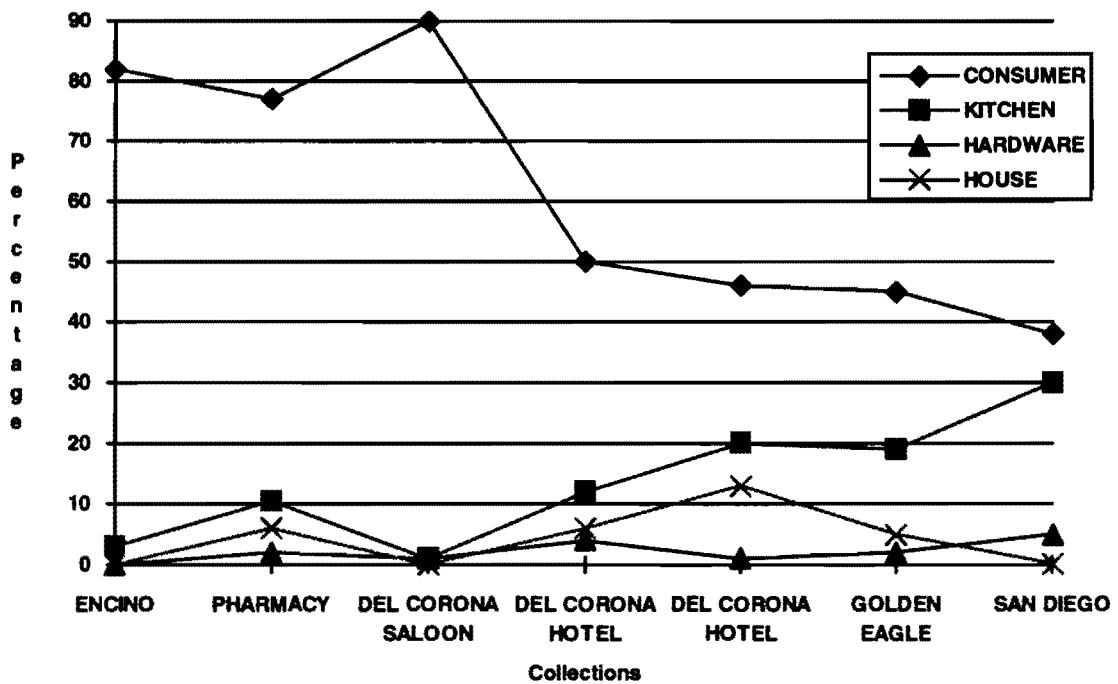


Figure 2. Cross site commercial activity profiles.

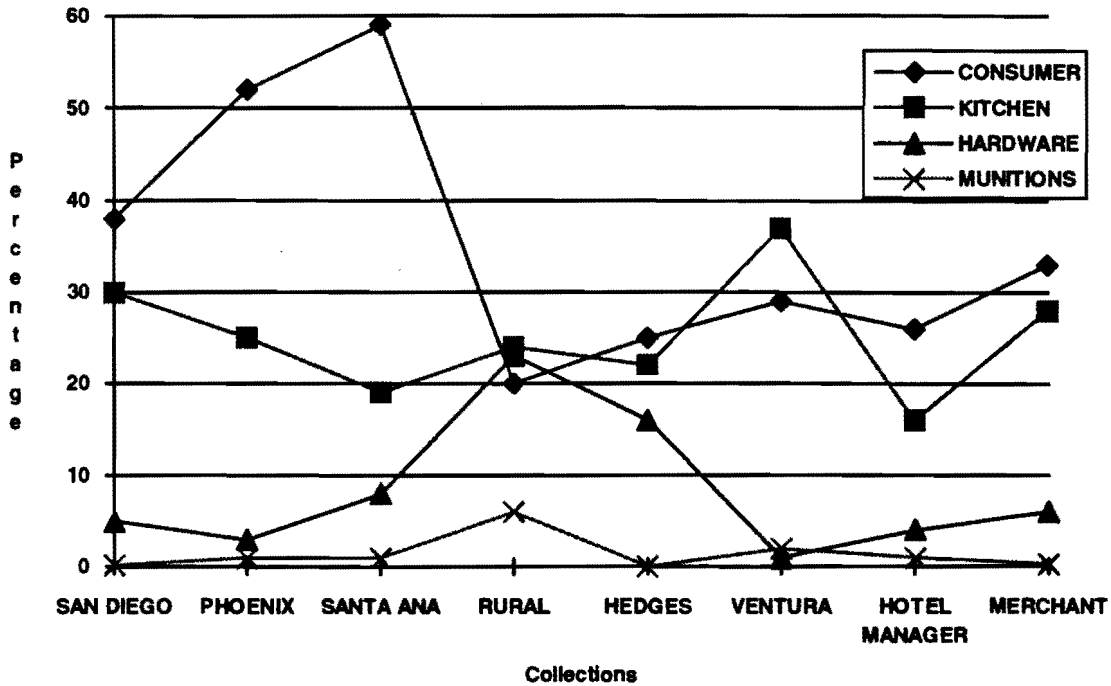


Figure 3. Cross site household activity profiles.

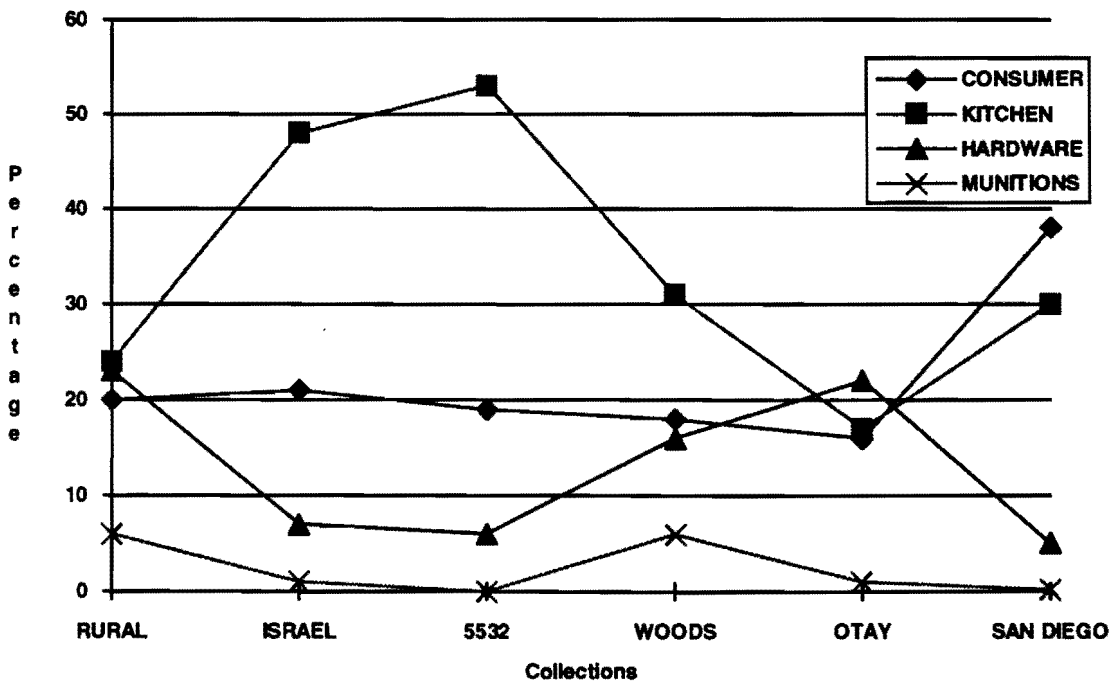


Figure 4. Cross site rural activity profiles.

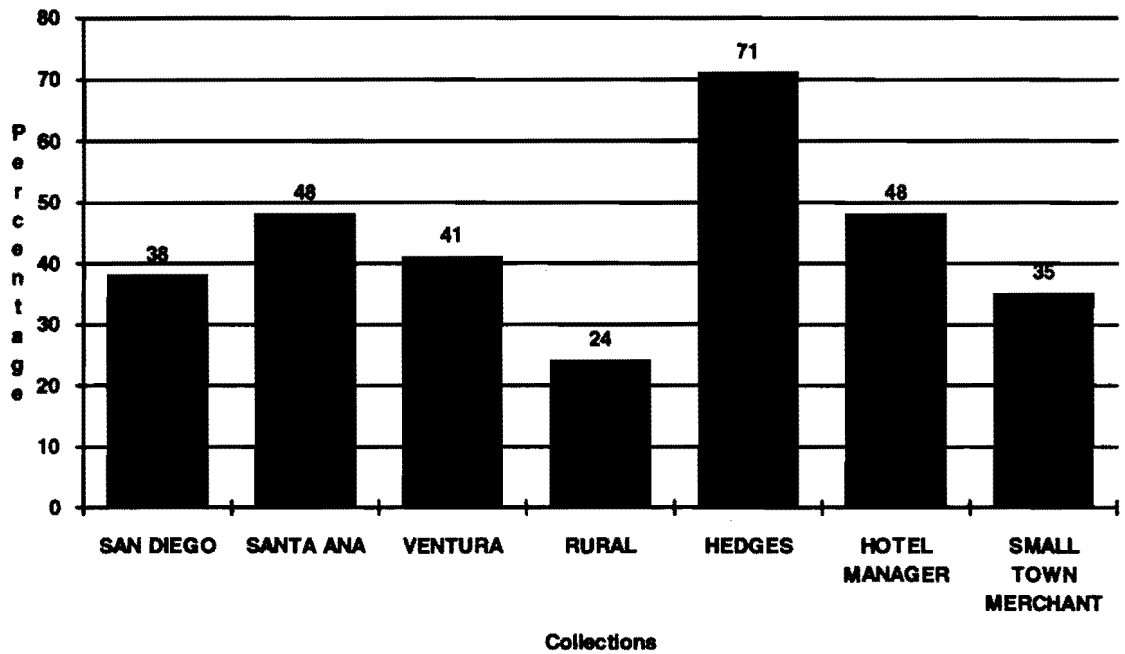


Figure 5. Cross site beverage bottles.

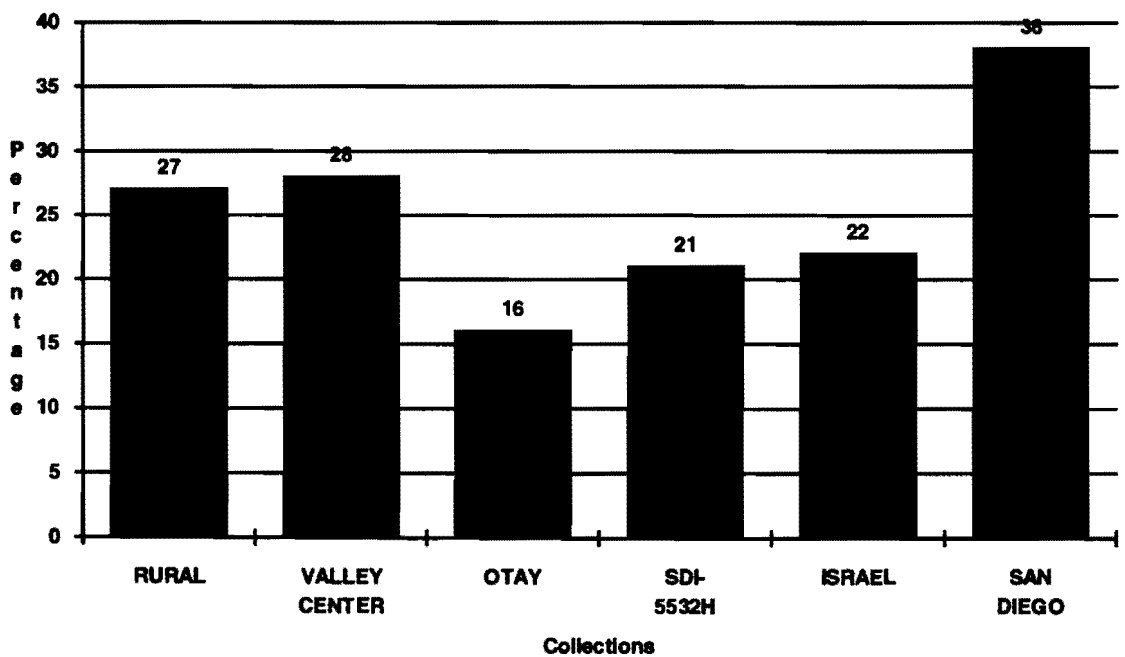


Figure 6. Rural crosssite beverage bottles.

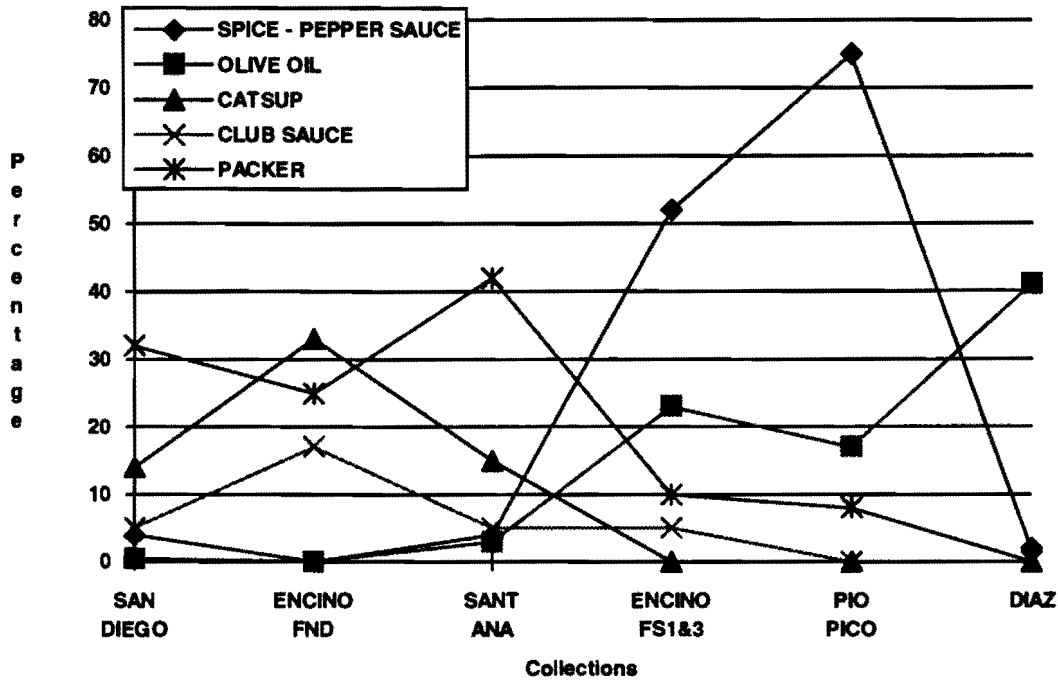


Figure 7. Comparative culinary product consumption patterns.

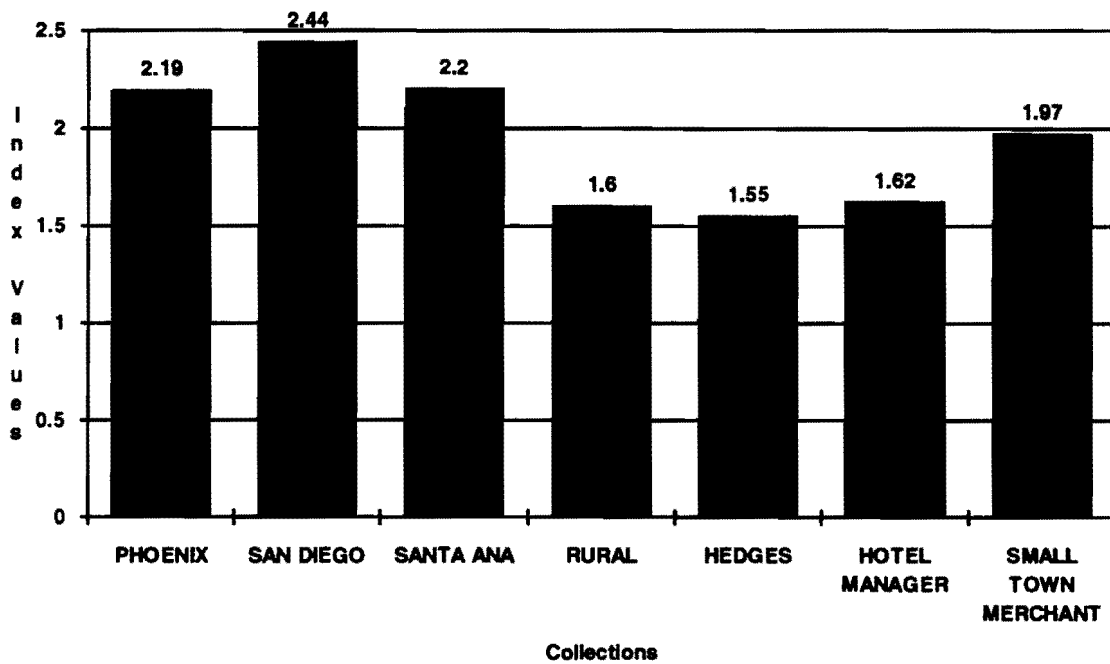


Figure 8. Cross site ceramic index values.

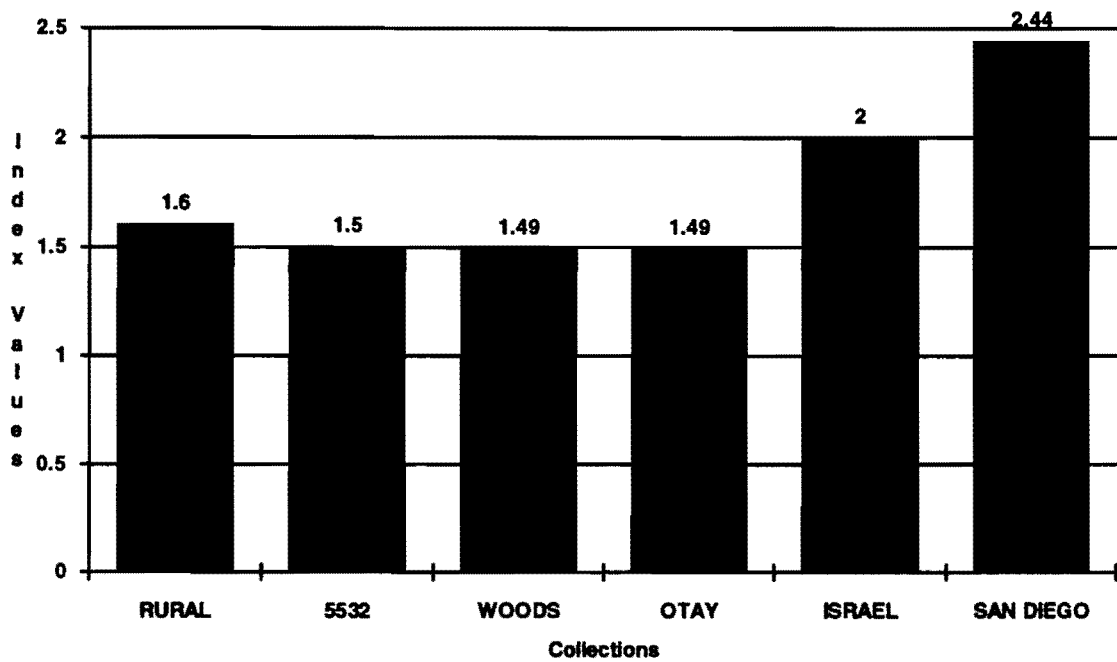


Figure 9. Rural Cross site ceramic index values.