

# GARMENT AND JEWELRY ANALYSIS AT RANCHO DE LOS PEÑASQUITOS 1987 AND 1990 FIELD EXCAVATIONS

Paula G. Reynolds  
Department of Anthropology  
San Diego State University  
San Diego, California 92182

## ABSTRACT

Rancho de los Peñasquitos, located within the Los Peñasquitos Canyon Preserve, is known to have had a long period of prehistoric and historic occupation. In 1991, an opportunity was presented to study and analyze a variety of garment and jewelry artifacts from this important site. Thirty-eight artifacts, which included buttons, beads, hooks, and snaps, were recovered during the 1987 and the 1990 excavation seasons. Each item was identified and evaluated with consideration given regarding the history of the artifact, its material and design, its function and site location. Many items were revealed as utilitarian in nature and appropriate to the life style at a working ranch and indicative of the social and economic patterns of people living in this rural area.

## INTRODUCTION

The focus of this report is to present the results from the analysis of garment and jewelry artifacts from the 1987 and 1990 excavations conducted at the Rancho de los Peñasquitos. This site, located in Los Peñasquitos Canyon Preserve, San Diego County is known to have had a long period of occupation, both prehistorically and historically.

The 1987 field excavation was led by Dr. Susan Hector of the History Department at San Diego State University. Her investigations dealt with refuse areas south of the present-day Wing C.

The 1990 field excavation was conducted by Dr. Lynne Christenson of the Anthropology Department at San Diego State University. Its goal was to investigate the remains of a building fire that occurred at the site in 1912. With student assistance, 14 units were dug parallel to a sewer trench (SwTr) contiguous to the south side of Wing C. Seventeen shovel test pits (STP) were also investigated. STP 1-7 were taken from an

open area south of Units 1-14. STP 8-17 were dug along a due north-to-south line, west of Building B.

## REFERENCES

The identification of garment and jewelry artifacts was made possible through the comparative collection at the San Diego Historical Society Research Archives, the author's own private collection, and from numerous books on the related subjects from the libraries of San Diego State University, University of California at San Diego, the City of San Diego (downtown branch), and the San Diego Museum of Man.

Additional information was obtained through personal interviews with archaeologists Steve Van Wormer and Susan Walter; Angelica Decog, clothing curator at the San Diego Historical Society; Ms. Bradley, button collector and San Diego Historical Society volunteer; professors Pat Abbott and Dave Kimbrough of the Geology Department at San Diego State University; Gary Gilmore, jeweler; the sales staff at the Shepherdess

Bead Shop; and my parents, Wes and Wilhelmina Reynolds.

## METHODOLOGY

I based my garment and jewelry research on the Five Basic Properties of analysis and the Four Operations that are performed on these said properties.

### The Five Basic Properties

1. History of the Artifact. This required finding out when and where the artifact was made, by whom, and for whom. For example, the "zipper" was invented in 1913 by Louis Walker, in the United States, to be used as a fastener on a tobacco pouch or money purse.

2. Material. What was the artifact made of? Each of my garment and jewelry items was identified as to its material type; was it made of Bakelite, glass, metal, etc.?

3. Construction. What type of construction techniques were used in manufacturing this artifact? Were these beads wire wound, drawn, or hand drilled?

4. Design. What was the object's style or form? Was the bead multifaceted or spherical? Was the button dish-shape or inkwell?

5. Function. How was the artifact used? Did this garter hook hold up stockings? Did this suspender hold up trousers? Was this bead from a necklace or was it a dress ornamentation?

### The Four Operations

The Four Operations were used to help me form a structure to ask questions about these artifacts.

1. Identification. What exactly is this object? Is it a bead, button or garter clasp? I had to look at the different typologies and take into account size, weight and physical attributes of each item. Every artifact was individually drawn by myself for reference and for documentation.

2. Evaluation. This involved the esthetic qualities of the artifact and its workman-

ship. Each artifact was compared to an object that was similar or the same. This involved asking an expert or using comparative collections.

3. Cultural Analysis. What can I tell about the people living at the ranch based upon the artifact analysis? Questions that could be asked include:

A. Can the function of the artifact be determined and what function did it perform in this culture?

B. What meaning did the artifact have to these people?

C. Was the item used by a man or a woman?

D. Do these artifacts reflect the behavior pattern of the people living at the ranch?

E. Could economic behavior be judged?

F. Is there an ethnic affiliation?

4. Interpretation. This is where it is all brought together.

## PROBLEMS

While conducting my research on garment and jewelry items, I encountered a few problems. I found it very difficult to locate information on common items like utilitarian buttons. Personal interviews with local button collectors produced little information and served only as a sounding board for my own findings and theories. Most collectors specialized in a favorite button type (for example, black glass or military buttons) and were only informed about that particular style of button. Utilitarian buttons held little or no interest for these people (Bradley, personal interview, 1991).

Most of the books and articles available were written with the "fancy" button in mind. Problems also arose concerning the references cited within these books. Many of these referenced books are no longer in print and are considered collector's items themselves.

Many books have been written on the history of fashion and costuming, but there is very little information available about the notions that accompany these fashions. Notions play a very important role in helping us understand the behavior of the people wearing these clothes. It is these items, small as they are, that usually survive the longest through time. With the increased interest in historical archaeology, I believe more "groundwork" needs to be done in these areas.

## TERMINOLOGY

Throughout my report, I have used several terms that should be clarified:

### Utilitarian Buttons

These are the plain-holed buttons that are used on work clothes or for everyday wear. They would have been worn on shirts, dresses, blouses, long underwear, etc.

### Fancy Buttons

"Fancies" are comprised of the rare and unusual; for example, gilded, enameled, inlaid, bejeweled, or military. These are the buttons that would most likely catch your eye.

### Notions

Notions are the small items that accompany an outfit; for example, buttons, snaps, hooks, and zippers.

### Fish Eye, Dish, and Inkwell

These are terms used to describe the surface shape on the face of a button.

**Fish Eye.** This is a marquise or rounded oval shape depression on the face of a 2 hole button.

**Dish.** Dish shaped button has a slightly rounded circular depression on its face and it can have 2 to 4 holes.

**Inkwell.** Inkwell buttons are thicker than dish buttons. The surface of this style button rises diagonally from its edge towards the center, where it surrounds 4 holes within a deep depression that resembles a small reservoir or inkwell.

## COMPUTER INFORMATION

The computer system used for storing the archaeological data from the Rancho de los Peñasquitos was an IBM compatible PC+ with 3.0 DOS. The software was SPSS, Statistical Package for Social Science, copyrighted 1988.

In filing my data, the following key was used to define "Designs" and "Marks" listed on the program.

If there was a number listed beside "Design" it meant:

- #1- The artifact had a square cylinder shape.
- #2- It had a spherical shape.
- #3- There were printed words on the artifact.
- #4- It was hand drilled.
- #5- The word "Patented" was printed on the artifact.
- #6- It was inlaid.
- #7- It had a tear drop shape.
- #8- It had a barrel shape.

If there was a "0" or a "1" next to "Marks" it meant:

- "0"- The artifact was free of marks.
- "1"- There were identifying marks on the artifact. This could imply a wide range of physical attributes or irregularities. These are explained under comments or identification.

## RANCHO DE LOS PEÑASQUITOS 1987 EXCAVATION RESULTS

The 1987 excavation uncovered a total of 13 artifacts from Units 2, 6, 7, 9 and 12 (Figure 1). Of these items, 12 can be affiliated with garment apparel or jewelry. One miscellaneous artifact belonged in the personal category (cf. Tables 1-3).

## ARTIFACTS BY UNITS

### Unit 2 - N0E20

Unit 2 contained only 1 item, a serpentine stone bead (87-2-73) that was uncovered at the 30-40 cm level.

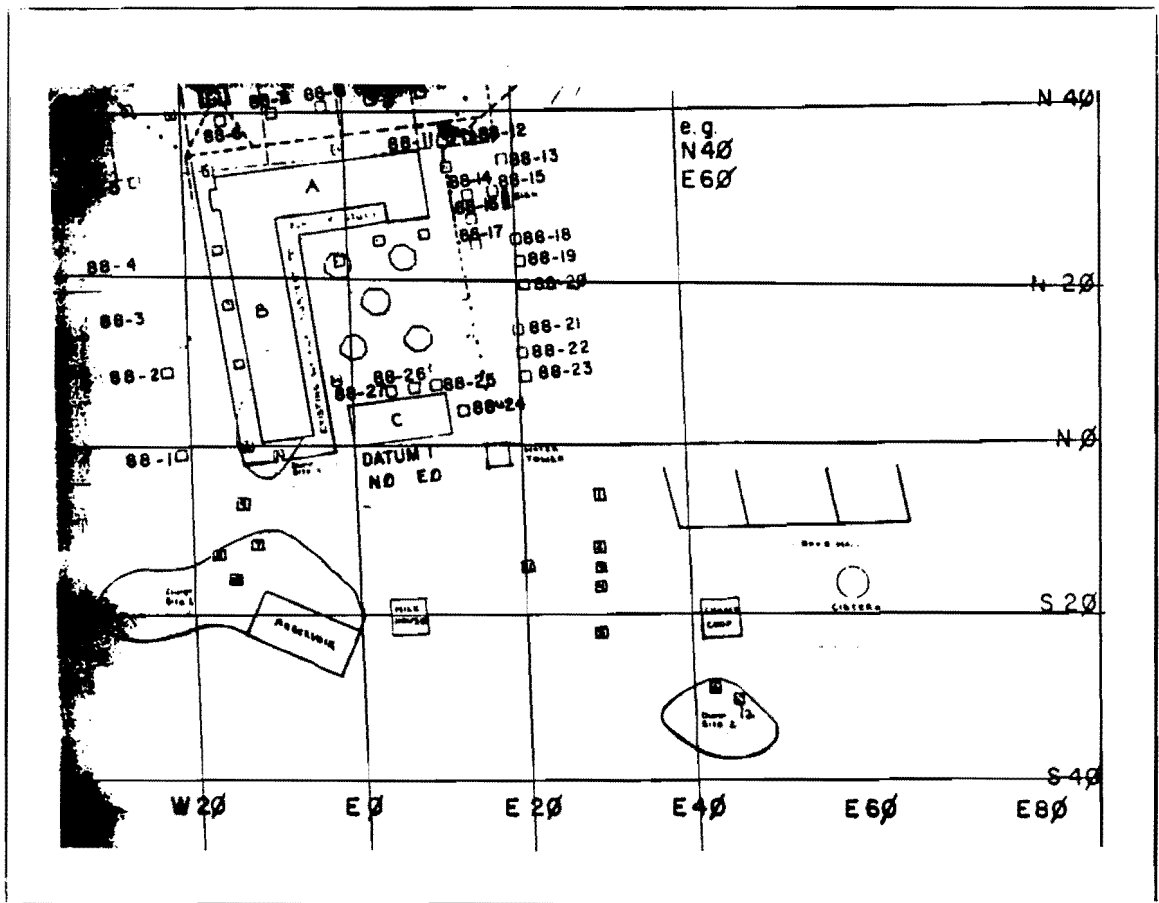


Figure 1. Rancho de los Peñasquitos 1987 Field Excavation Areas.

Table 1. 1987 Assemblage

Cat No.	Unit	Level	Quan.	Item	Material	Wt/Gm
87-2-73	2	30-40	1	bead	stone	1.5
87-6-22	6	0-10	1	button	glass	0.6
87-6-210	6	10-20	1	button	Bakelite	0.3
87-6-400	6	30-40	1	safe.pin	metal	0.6
87-7-2	7	0-10	1	bead	glass	0.2
87-7-6	7	0-10	1	suspdr	metal	4.0
87-7-10	7	0-10	1	hook	metal	0.2
87-7-29	7	0-10	3	eyelets	metal	1.1
87-1906A	9	10-20	1	buckle	metal	5.2
87-1906B	9	10-20	1	handle	bone	1.4
87-12-22	12	0-10	1	button	glass	1.3

Table 2. 1987 Artifact Percentages by Unit

Unit	Item(s)	Percent
2	1	8
6	3	23
7	6	46
9	2	15
12	1	8

Table 3. 1987 Artifact Percentages by Level

Level	Item(s)	Percent
0-10	7	54
10-20	4	31
20-30	0	0
30-40	2	15

#### Unit 6 - NOW20

Unit 6 went to the depth of 30-40 cm and contained 2 buttons: 1 glass (87-6-22, 0-10 cm) and 1 Bakelite (87-6-210, 10-20 cm). One metal safety pin head (87-6-400) was recovered from the deepest level at 30-40 cm.

#### Unit 7 - NOW20

Unit 7 contained the most artifacts, all 6 of which were uncovered at the 0-10 cm level. These consisted of 1 glass bead (87-7-2) 1 suspender buckle (87-7-6), 1 metal hook (87-7-10), and 3 metal eyelets (87-7-29).

#### Unit 9 - NOW20

Unit 9 produced 2 artifacts from the 10-20 cm level. One was an unidentified friction buckle (87-1906A), and the other, a bone brush handle (87-1906B).

#### Unit 12 - S40E20

Unit 12 contained 1 glass button (87-12-22) at the 10-20 cm level. This button is identical to glass button 90-352, uncovered from the same level in Unit 6 during the 1990 excavation season.

Total Artifacts by Type: Buttons = 3, Beads = 2, Eyelets = 3, Suspender buckle = 1, Hook = 1, Safety pin head = 1, Miscellaneous = 2.

## RANCHO DE LOS PEÑASQUITOS 1990 EXCAVATION RESULTS

The 1990 excavations revealed 25 items excavated from Units 1, 3, 6, 8, 9, Shovel Test Pit-11 (STP-11) and a sewer trench (SwTr) (Figure 2). Twenty-four of these artifacts were clothing and jewelry items. One miscellaneous artifact consisted of an unidentifiable piece of metal (cf. Tables 4-7).

## ARTIFACTS BY UNITS

#### Unit 1 - NOW20

Unit 1 contained 2 glass buttons (90-283 and 90-691) from level 30-40 cm.

#### Unit 3 - NOW20

Unit 3 contained 2 glass beads (90-85A, 90-85B) at 10-20 cm; 2 buttons, 1 glass (90-576A), and 1 unidentified (90-576B) from 30-40 cm; and 1 metal snap inlaid with glass (90-419) from 20-30 cm.

#### Unit 6 - NOE0

Unit 6 had the most artifacts, all of which were recovered from the 10-20 cm level. There were 3 buttons, 1 plastic (90-341A), 1 shell (90-341B), 1 glass (90-352); 1 rubber garter clasp (90-14); and 3 glass beads (90-350A, B and C).

#### Unit 8 - NOW20

In Unit 8, 1 glass bead (90-147) was from level 10-20 cm. This bead is identical to 2

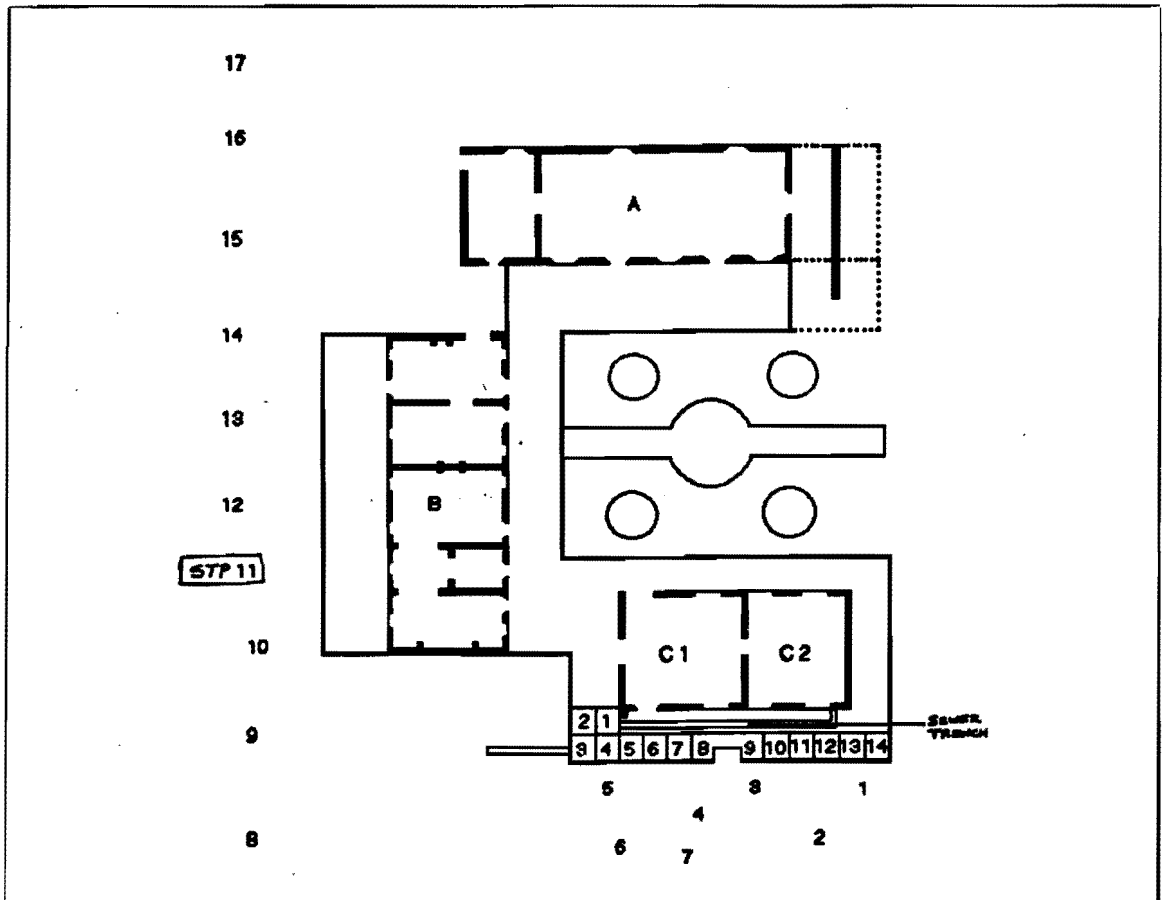


Figure 2. Rancho de los Peñasquitos 1990 Field Excavation Areas.

Table 4. 1990 Assemblage.

Cat. No.	Unit	Level	Quan.	Item	Material	Wt/Gm
90-283	1	30-40	1	button	glass	1.0
90-691	1	30-40	1	button	glass	0.5
90-85A	3	10-20	1	bead	glass	0.5
90-85B	3	10-20	1	bead	glass	
90-419	3	20-30	1	snap	met./gl	1.5
90-576A	3	30-40	1	button	glass	0.8
90-576B	3	30-40	1	button	unident	
90-341A	6	0-10	1	button	plastic	0.5
90-341B	6	0-10	1	button	shell	
90-14	6	10-20	1	clasp	rubber	0.9
90-350A	6	10-20	1	bead	glass	
90-350B	6	10-20	1	bead	glass	1.5
90-350C	6	10-20	1	bead	glass	
90-352	6	10-20	1	button	glass	1.2
90-145	8	10-20	2	snap	metal	1.8
90-147	8	10-20	1	bead	glass	0.8
90-291	8	30-40	1	button	clay	0.3
90-151	9	0-10	1	bead	glass	0.1
90-65	9	10-20	1	unid.	metal	0.1
90-69	9	10-20	1	zip.	metal	1.7
90-211	9	40-50	1	bead	glass	2.7
90-916	STP-11		1	button	shell	0.5
90-939A	SwTr		1	button	glass	1.2
90-939B	SwTr		1	button	plastic	

Table 5. 1990 Artifact Percentages by Unit

Unit	Item(s)	Percent
1	2	8
3	5	20
6	7	28
8	4	16
9	4	16
STP-11	1	4
SwTr	2	8

Table 6. 1990 Artifact Percentages by Level (excluding SwTr and STP-11)

Level	Item(s)	Percent
0-10	3	14
10-20	12	55
20-30	1	4
30-40	5	23
40-50	1	4

Table 7. Combined 1987 and 1990 Unit and Level Statistics (excluding SwTr and STP-11)

Level	1987	Percent	1990	Percent	TOTALS	
0-10	7	54	3	14	10	29%
10-20	4	31	12	55	16	46%
20-30	0	0	1	5	1	3%
30-40	2	15	5	23	7	20%
40-50	0	0	1	5	1	3%
	13		22		35	

beads (90-350A and B) uncovered from the same level in Unit 6. Unit 8 also contained 1 whole metal snap (2 pieces, 90-145) uncovered at 10-20 cm and a clay button (90-291) at 30-40 cm.

#### Unit 9 - N20E0

Unit 9 had the widest range of levels from 0-10 cm to the deepest level at 40-50 cm. These levels contained 1 glass bead (90-151, 0-10 cm), 1 metal zipper tab (90-69, 10-20 cm), 1 unidentified piece of metal (90-65, 10-20 cm), and 1 multifaceted glass bead (90-211, 40-50 cm).

#### STP-11

Shovel test pit 11 had only 1 shell button (90-916).

#### Sewer Trench N0E0 to N20E0

The sewer trench revealed 2 buttons, 1 glass (90-939A) and 1 plastic (90-939B).

Total Artifacts by Type: Buttons = 11, Beads = 8, Snaps = 3, Garter clasp = 1, Zipper tab = 1, Unidentified = 1.

## EVALUATION OF GARMENT AND JEWELRY ARTIFACTS

### BUTTONS

The Rancho de los Peñasquitos excavations in 1987 and 1990 yielded 14 buttons of known and unknown origins (Table 8). Their depths, including the sewer trench, ranged from a surface shovel test to a maximum depth of 50 cm. No buttons were re-

Table 8. Grouping of 1987 and 1990 Button Artifacts

Cat. No.	Wt./gm	Dia./mm	Width/mm	Material	Color	Holes
87-6-22	0.6	11	3	glass	white	4
87-12-22	1.3	16	5	glass	white	4
90-283	1.0	14	4	glass	white	4
90-352	1.2	16	5	glass	white	4
90-576A	0.8	10	3	glass	white	4
90-691	0.5	11	4	glass	white	4
90-939A	1.2	14	3	glass	blue	2
90-341A	0.5	14	2	plastic	yellow	2
90-939B	-	10	2	plastic	white	2
90-341B	-	11	-	shell	pearl	4
90-916	0.5	11	3	shell	pearl	2
90-291	0.3	13	3	clay	beige	2
87-6-210	0.3	14	3	Bakelite	brown	4
90-576B	-	14	2	unident.	brown	4

covered from the 20-30 cm level (Table 9).

Buttons were used as fasteners as early as the 15th century. Prior to that time, they were worn merely as ornamentation (Albert 1949).

Table 9. Percentages of Buttons by Levels

Level	Item(s)	Percent
STP-11	1	7
SwTr	2	14
0-10	4	29
10-20	2	14
20-30	0	0
30-40	5	36

Many varieties of buttons are used on clothing. These buttons fall into 2 main groups according to how they are attached to a garment. One group consists of buttons that have a shank which may be made of metal or a cloth loop (no shank buttons were recovered from the ranch during the 1987 and 1990 excavation seasons). The second group (which represented the ranch collection), consisted of buttons that had been pierced with holes, numbering from 1 to 4, through which threads had been passed (Al-

bert 1949).

Buttons can be roughly dated according to the initial dates of manufacturing innovations and material type. The best means to date buttons corresponds with the presence of maker's marks, quality, and registry marks (Albert 1949). Unfortunately, none of the buttons recovered from the ranch site had any of these identifying marks.

### Glass

Of the 14 buttons that were excavated at Rancho de los Peñasquitos, 7 were made of colored glass. Six of these were white opaque or milk glass (87-6-22, 87-12-22, 90-283, 90-352, 90-576A, 90-691) and 1 was blue (90-939A).

It is believed that glass buttons have been manufactured since the 1840s, however the exact dating of glass buttons is difficult. Popular button types were called "stock patterns" and were manufactured only as long as they were considered "good sellers" (Luscomb 1967). Popular button styles included Dish Shape buttons (87-12-22, 90-283, 90-352, 90-576A, 90-939B), Fish eye (90-916, 90-939A), and Inkwell (90-691).

Glass buttons are classified into 2 groups: (1) clear and colored glass, and (2) black glass. "Clear" is the term for transparent glass with no color. "Colored" includes all that has color, is transparent, translucent, or opaque (Luscomb 1967). Opaque glass was originally made in the imitation of Chinese porcelain. Its opaque color was obtained by mixing oxide of tin to give it a milky appearance. Opaque glass can be either white or colored (Albert 1949). Black glass buttons are more common than colored or clear; more of them have been found from the 19th century than any other color (Luscomb 1967). However, in this collection there are no black glass buttons.

### Plastic

During the last quarter of the 19th century, many variety of plastics were being used in the manufacture of buttons. It was not until after 1925 that the term "modern plastic" came into use (Brown 1968). The 2 buttons 90-341A and 90-939B are made of "modern plastic".

## Shell

Two buttons from this assemblage were shell (pearl) buttons (90-341B, 90-916). Pearl buttons are those that are cut from the iridescent lining of the shells of bivalve mollusks (Albert 1949).

Pearl buttons were manufactured from the 18th century up to 1855 on a very small scale using Iridescent Pearl or "Ocean Pearl" from the northwest coast of Australia (Brown 1968). During the last decade of the 19th century, the industry received an enormous boost when button makers in the United States began to utilize "River Pearl" from fresh water mollusks. Fresh water pearl is known as "White Pearl" and it is less iridescent than sea shell, but still yields good button material (Albert 1949).

During the 18th and 19th centuries, pearl buttons were made entirely by hand. After the introduction of machinery and the availability of fresh water mollusks, numerous pearl button factories sprung up throughout New England, Pennsylvania, Maryland, and the northern Mississippi valley states of Wisconsin, Iowa and Illinois (Encyclopedia Britannica 1929).

Combined, all these factors caused the mass production of buttons to increase and with it their popularity. This is evident throughout the Sears, Roebuck and Company catalogs from the turn of the century. Almost all shirts, blouses and undergarments for both men and women came furnished with pearl buttons. These buttons were also available in bulk (Sears, Roebuck and Company Catalog 1897:375).

## Clay

The material makeup of the 2 hole button 90-291 was identified as fired clay (Pat Abbott and Dave Kimbrough, personal interview, 1991). To most button collectors, coarser ceramic buttons made of clay are classified as "pottery". These buttons were usually manufactured in small shops and were often more primitive in texture and shape than other buttons. They were made with holes or metal shanks, or were mounted on metal frames (Luscomb 1967).

This type of button is very fragile and is

extremely rare (Steve Van Wormer and Angelica Decog, personal interview, 1991).

## Bakelite

A personal interview with Steve Van Wormer identified the plain 4-hole button 87-6-210 as being manufactured of "Bakelite". Bakelite is the trade name of a plastic made from carbolic acid, formaldehyde, and lye. It was named after Leo H. Baekeland, an American chemist who developed it between 1907 and 1909. It is considered the first synthetic plastic. Bakelite buttons were produced until the late 1930s when better plastics were developed (World Book Encyclopedia 1973).

## Unidentified

I had originally thought that the button 90-576B was made from pressed bone, but after further examination with the use of a high power magnifying lens, I realized it did not have the normal physical attributes that are characteristic of bone buttons (i.e., small flecks or broken lines which occur irregularly throughout the matrix).

Closer examination revealed that this button was made of 2 separate pieces of material that had been laminated.

I showed this button to Gary Gilmore, a local jeweler, and asked him to test it for me. First, a tiny sample of button material was scraped from the edge of the button onto a flat stainless steel spatula. This spatula was then heated over a flame until the metal became a dull red. It was then removed from the heat.

According to Crouse (1941), if a button were made of Bakelite, bone, celluloid, glass, hard rubber, horn, leather, plastic, or wood, I would have had the following results when it was burned:

Bakelite -- It would have smelled like carbolic acid.

Bone -- It would have burned.

Celluloid -- This would have melted and had an odor of camphor.

Glass -- Too difficult to scrape a sample to test.

Hard rubber -- This would have smelled like burned rubber.

Horn -- Horn smells like burning feathers.  
 Leather -- This would have burned.  
 Plastic -- Plastic would have melted.  
 Wood -- This would have burned.

The results? There was no smoke, no flame, no odor, yet the sample had turned to ash. I even applied a red hot pin to the back of this button with no results.

I do not know what this button is made of, but I have been able to show what it is not.

### Button Measurements

According to the International Metals and Commodities (IMAC) User's Guide (United States Government 1986), button size is expressed in lines. Forty lines is equivalent to 1 inch in diameter or 25 mm.

The Sears, Roebuck and Company (1908) catalog used the following scale to correlate inches and lines. I have included the equivalent measurements in mm.

Lines:	12	14	16	18	20	22	24
Inches:	1/4	5/16	3/8	7/16	1/2	9/16	5/8
Mm:	6	8	10	11	13	14	16

The Sears, Roebuck and Company (1908) catalog refers to shirt and dress buttons as having 10 to 20 lines. Vest, coat, and jacket buttons were 24 to 36 lines.

Using this method to determine size for the buttons from the Rancho de los Peñasquitos, I found that 50% of the buttons were in the shirt and dress category, 14% were in the vest and coat grouping, and 36% were in between (Table 10).

Table 10. Button Sizes

Size/mm	Lines	Buttons	Percentage
10	15	1	7
10	16	1	7
11	18	4	29
13	20	1	7
14	22	5	36
16	24	2	14

From my own personal knowledge of button sizes and their association with different clothing apparel, I would likely agree with this chart. However, one must consider the material from which the button is made. Buttons that are more attractive and of better quality would have been worn on clothing as is suggested in this chart. Lesser quality buttons would have been sewn on undergarments that would have been covered and not seen.

A case in point would be buttons 87-12-22 and 90-352. These similar glass buttons measured 16 mm or 24 lines. Large white opaque buttons such as these would not have been used on a coat or vest, but rather on a garment such as long underwear (Angelica Decog, and Wes and Wilhelmina Reynolds, personal interviews, 1991; Sears, Roebuck and Company 1897:273).

## BEADS

A total of 10 beads were recovered during the 1987 and 1990 excavations (Table 11). Nine were identified as glass and 1 was a natural stone. Their depths ranged from just below the surface to a maximum of 50 cm. No beads were recovered from the 20-30 cm level (Table 12). Sixty percent were drawn, 20% were hand drilled, 10% were wire wound, and an additional 10% was represented by a teardrop shape (Table 13).

### Method Definitions

**Drawn Method.** Drawn glass beads were produced by drawing a bubble of molten glass into a long slender tube. After cooling, the tube would be then cut into small cylinders with a central hole. They were finished by a reheating technique where they were tumbled smooth and rounded. Using this method, multiple beads could be made in a very short time (van der Sleen 1964).

**Wound Beads.** Wound beads are made individually by putting a small bit of molten glass on a revolving wire or rod. This eliminates the need to drill or perforate the bead. This method will leave spiral marks within the bead's central hole (Hoover and Costello 1985).

Table 11. Grouping of 1987 and 1990 Bead Artifacts

Cat. No.	Wt/gm	Lgth/mm	Wdth/mm	Material	Color
87-7-2	0.2	5	5	glass	blue/sil
87-2-73	1.5	11	10	stone	green
90-85A	0.5	15	6	glass	pearl
90-85B		18	-	glass	pearl
90-147	0.8	6	6	glass	beige
90-151	0.1	3	3	glass	pearl
90-211	2.7	13	12	glass	black
90-350A		9	7	glass	blue
90-350B	1.5	6	6	glass	beige
90-350C		6	6	glass	beige

Table 12. Percentage of Beads by Levels

Level	Item(s)	Percent
0-10	2	20
10-20	6	60
20-30	0	0
30-40	1	10
40-50	1	10

Table 13. Types of Beads

Cat #87-7-2	Blue silver square cylinder, drawn
87-2-73	Natural shape serpentine, hand drilled
90-85A	Pearl coated spherical, drawn
90-85B	Pearl tear drop
90-147	Beige spherical, drawn
90-151	Tiny pearl coated spherical, drawn
90-211	Black multifaceted, hand drilled
90-350A	Blue barrel, wire wound
90-350B	Beige spherical, drawn
90-350C	Beige spherical, drawn
60% (6) were made by the drawn method	
20% (2) were hand drilled	
10% (1) was wire wound	
10% (1) was a tear drop	
[For definitions, see discussion.]	

Hand Drilled. Beads 87-2-73 and 90-211 were hand drilled. This is evident by 1 end of the hole being larger than the other due to hand rotation while drilling (Susan Walt-

er, personal interview 1991).

Teardrop. 90-85B is a small teardrop shaped bead with no perforation. This type of bead was usually glued into some kind of jewelry (Angelica Decog, personal interview 1991).

Beadwork has been used for centuries for personal adornment. During the Victorian Era, beadwork was extremely popular to decorate dresses, bodices, capes and purses. This popularity reached its peak during the 1920s, but it is still popular today (Malouff 1983).

Prior to 1940, almost all beads were made of jet or glass. These 2 materials were favored because they did not melt when exposed to heat (Malouff 1983).

#### Serpentine Bead

87-2-73, a hand-drilled serpentine bead, was identified as being serpentine by Pat Abbott and Dave Kimbrough of the Geology Department at San Diego State University. Often mistaken for jade, this green stone is soft and easily worked and has been used for carving and beadwork since ancient times. It is not native to the San Diego area, but is plentiful from Central to Northern California.

#### Multifaceted Bead

90-211, a black multifaceted hand-drilled bead, was identified by Pat Abbott and Dave Kimbrough as being made from either natural or manmade glass.

Personal interviews with Susan Walter and Angelica Decog revealed the possibility of 2 different uses for this bead. Black glass is very similar in appearance to jet, a fossilized coal. Jet jewelry was very expensive during the late 19th century due to its unavailability. The scarcity of this luxury item forced many middle class ladies who could not afford jet jewelry, but were fashion conscious, to wear black glass instead.

These beads were often sewn onto dresses, capes, purses, etc. (Angelica Decog, personal interview, 1991). Many of the dresses in the San Diego Historical Society's collection were heavily decorated with beads identical to 90-211 (personal observation 1991).

Susan Walter suggested that this bead could have been worn as sentimental or mourning jewelry. In Europe, jet had been recommended for mourning jewelry as early as 1827. Its popularity escalated to a peak between 1860 and the late 1880s, when colorless ornaments became the fashion, not only for mourning jewelry, but for clothing ornamentation as well. During this period, the jet industry could not keep up with the demand, so it turned to manufacturing imitation jet jewelry from French glass, also known as black glass. The late 1880s saw a decline in the popularity of jet due to mass production of black glass (Gere 1975).

## SNAPS

The Oxford English Dictionary's (1989) earliest example for the use of a snap was from 1815, where it says, "She took off her spectacles and put them carefully into an old fish skin case with a snap on it." Early uses for snaps were primarily as spring catches for bracelets, purses, reticules, etc. Their use as fasteners in clothing only came into fashion after the turn of the 20th century (Angelica Decog, personal interview, 1991).

The "metal or plastic fastener [is] made in two parts to be sewn to either side of a opening in a garment, one part is male form, the other is female. They fit tightly together to make a firm enclosure" (Yarwood 1978:384).

Snap 90-145 (Table 14) consists of both male and female parts and had been applied to a man's shirt as a grommet or a rivet as opposed to a snap that had been sewn on (Angelica Decog, personal interview, 1991).

The female portion of the snap had been engraved with a large "W" on its upper surface. The stud or male snap was engraved on both its top and bottom surfaces. The upper portion of the stud snap was engraved with the word "Gripper S.M.CO.". Unfortunately, on the bottom portion, the engraving is somewhat illegible. This "designer label" snap would have appeared on men's casual dress shirts after 1905 (Angelica Decog, personal interview, 1991).

Table 14. Snaps

Cat.No.	Unit	Level	Wt/gm	Dia/mm	Material
90-145	8	10-20	1.8	M 10/F 12	metal
90-419	3	20-30	1.5	M - /F 11	met/gl

This snap is unique, not only for its engraving, but for the remnant of shirt fabric that is still attached to the insides of both snap pieces. This fabric was woven out of blue and white cotton threads in a weave pattern known as "plain weave". Nearly 3/4 of all woven fabrics are made in this simple form. Plain weave is used in sheeting, chambray, organdy, and all types of printed cloth, and homespun (Evans 1949).

Snap 90-419 (Table 14) consists of the top or female part of a snap. It was inlaid with a white opaque glass disk surrounded by a metal rim. It had been originally applied to a garment like a grommet. Snaps of this design were popular after 1905 and were common by the time of the first World War. Because of its popularity, it is difficult to determine whether this fancy snap had been worn on a man's dress shirt or on lady's apparel. Angelica Decog suggests that due to the size and thickness of this snap (5 mm), that it would not have been on ordinary work clothes, but rather on more expensive dressy apparel.

Using the San Diego City directories from the turn of the century to the present, neither Angelica Decog nor I were able to locate the manufacturer of this snap by its maker's mark. The absence of this notion within the city directories suggests that this snap was not likely made in San Diego.

## EYELETS

The uses for metal eyelets are universal. The 3 items recovered from the 1987 excavations could have been used on common items, such as shoes, belts, or women's corsets (Table 15). It is impossible to put a specific use or date to them.

Table 15. Eyelets

Cat. No.	Unit	Level	Wt/gm	Size/mm	Material
87-7-29	7	0-10		7 x 7	metal
87-7-29	7	0-10	1.1	9 x 10	metal
87-7-29	7	0-10		14 x 14	metal

## SUSPENDER BUCKLE

Suspenders or braces were designed during the 18th century to hold up men's trousers. During the latter part of the 1800s, the style of braces were changed from 2 single fitted bands to suspenders that were joined at the back and attached to the trousers by buttons (O'Hara 1986). Suspenders were extremely popular throughout the 19th century (Worrell 1979), and these suspenders came equipped with self-adjusting buckles. "Fancy ornamental sliding buckles" similar to buckle 87-7-6, were featured in the 1897 Sears, Roebuck and Company Catalog, Fall/Winter Edition, page 374. The ornamental scroll work on the surface of this buckle suggests that it may have come from "dress" suspenders. This type of buckle would not have been on work braces (Angelica Decog, personal interview, 1991).

This buckle (Table 16) is also unique in that there is printing on the back of the buckle teeth: "PAT mar.19.07, apld for" (i.e., patent applied for, March 1907). This would suggest that this buckle was manufactured after the date 1907 and before 1924. Patents that have been "applied for" are only good for 17 years. After this time period, the patent must be upgraded or a design change must occur in the original product (Wes Reynolds, personal interview, 1991).

Table 16. Suspender Buckle

Cat.No.	Unit	Level	Wt/gm	Lgth/mm	Wdth/mm	Material
87-7-6	7	0-10	4.0	15	40	metal

## ZIPPER TAB

The first slide fastener was invented in 1892 by Whitcomb L. Judson of Chicago. It was comprised of a series of hooks and eyes that fastened together with a slide (World Book Encyclopedia 1973).

In 1913, Gideon Sundback, a Swede working in the United States, developed Judson's idea and produced a hookless fastener with interlocking metal teeth (O'Hara 1986).

However, it was Colonel Lewis Walker, a friend of Judson, who in 1913 obtained the patent on the meshed tooth type of slide fastener that we use today (World Book Encyclopedia 1973).

Zippers were first used on money belts and tobacco pouches, items most likely carried by men who lived or worked at the ranch house (Table 17). It was almost a quarter of a century after the first slide fastener was developed that the slide zipper, as we know it, was first used on clothing (Shaw 1982). In 1917, members of the United States Navy were issued windproof jackets with clasp lock slide fasteners (O'Hara 1986).

Table 16. Zipper Tab

Cat.No.	Unit	Level	Wt/gm	Lgth/mm	Wdth/mm	Material
90-69	9	10-20	1.7	31	8/7/10	metal

## GARTER CLASP

The garter belt replaced the leg garter during the 1880s (O'Hara 1986). An article in Myra's Journal, December 1892 states, "...of the substitutes for garters that I have seen, I give preference to the suspenders supplied with Hoven's Clip, which does not tear the stocking and holds it firmly and safely in its grasp" (quoted in Waugh 1970:109). A garter clasp such as this could have been worn by women living at the ranch house. This type (Table 18) is still in use today.

Table 18. Garter Clasp

Cat.No.	Unit	Level	Wt/gm	Lgth/mm	Wdth/mm	Material
90-14	6	10-20	0.9	17	15	rubber

## HOOK

Hooks and eyes have been used for several centuries to hold garments together that require an invisible fastening. The Sears, Roebuck and Company Catalog has hooks and eyes for sale in the 1897 issue on page 945. It would seem reasonable that all persons associated with the ranch house would make use of this popular fastener (Table 19).

Table 19. Hook

Cat.No.	Unit	Level	Wt/gm	Lgth/mm	Wdth/mm	Material
87-7-10	7	0-10	0.2	14	4	metal

## SAFETY PIN HEAD

Safety pins have been in use since ancient times, but it was in 1849, when Walter Hunt of New York patented a design for the "modern" safety pin that this popular shape came into use. The chief use of the safety pin is to hold clothing together. It is called a safety pin because its pointed end can be easily slipped into a protective cap to prevent injury (World Book Encyclopedia 1973). They were advertised on page 945 in the 1897 Sears, Roebuck and Company Catalog. This garment item would serve the same purpose in both rural and urban settings (Table 20).

Table 20. Safety Pin Head

Cat.No.	Unit	Level	Wt/gm	Lgth/mm	Wdth/mm	Material
87-6-400	6	30-40	0.6	11	12	metal

## MISCELLANEOUS

### 87-1906A

I was unable to positively identify this artifact, but I believe that it could be a type of friction buckle (Table 21).

### 87-1906B

This bone handle may have belonged to either a nail brush or a toothbrush (Steve Van Wormer, personal interview 1991; Sears, Roebuck and Company Catalog, 1897:390) (Table 21).

### 90-65

This tiny metal object was broken into 3 pieces, and I was unable to identify it (Table 21).

Table 21. Miscellaneous

Cat.No.	Unit	Level	Wt/gm	Lgth/mm	Wdth/mm	Mat.	Item
87-1906A	9	10-20	5.2	37	33	metal	buckle
87-1906B	9	10-20	1.4	23	8/12	bone	handle
90-65	9	10-20	0.1	-	-	metal	unid.

## CONCLUSIONS

The 1987 excavation of the refuse dump sites at Rancho de los Peñasquitos revealed 13 artifacts that were classified as garment and jewelry items. The items recovered from these areas should have reflected discarded objects that were broken and/or no longer in use.

The goal of the 1990 excavation was to investigate the remains of a building fire that had occurred at the ranch in 1912. Twenty-five garment and jewelry artifacts were uncovered.

Comparing these artifacts by units and by levels, I found that a pattern emerged from both 1987 and 1990 excavations. In each of these excavations, the majority of the artifacts recovered were found within 20 cm of the surface. Combining both the 1987 and 1990 assemblages revealed that 74% of the artifacts were uncovered above 20 cm and 23% were below 30 cm. Only 1 artifact,

a snap (90-419), was recovered from 20-30 cm level.

The 1990 excavation showed that the depth for the 1912 fire refuse at the ranch was approximately 25 cm. This would place the time of deposition for the majority of these items well after the fire. The lack of artifacts at level 20-30 cm throughout the site could indicate that the ranch was not occupied during this time period.

None of the garment and jewelry items from either of these areas were burned, except for 2 items recovered from the 1987 refuse dump sites. One was a broken bone brush handle (87-1906B) from Unit 9, and the other a glass bead (87-7-2) from Unit 7.

If the artifacts from the 1990 excavation had been at the site prior to the fire of 1912, the artifacts would most likely have shown damage or would have been destroyed. For example, the fabric inside snap 90-145 would have been burned away and the metal stud would have melted, the glass beads would also have melted, and the shell buttons would have been destroyed.

Some of the artifacts were not even in use at the time of the fire, such as the zipper and the "modern" plastic buttons. The only artifacts that I believe predate the fire are the serpentine and multifaceted beads.

It is my conclusion that the majority of the garment and jewelry artifacts excavated during the 1987 and 1990 season were deposited after the fire of 1912.

### Buttons

The 14 buttons that were found at Rancho de los Peñasquitos were uncovered from levels that coincide with the overall artifact unit level statistics. Nine (64%) of the buttons were uncovered from the 10-20 cm level or above. None was recovered from level 20-30 cm, and the remaining 5 (36%) were from the 30-40 cm level. I tried to find a connection between button material and depth, but due to possible rodent intrusion, there was no set pattern. Buttons, regardless of material, were scattered throughout the different levels except for 20-30 cm. The only similarities I found were between

glass buttons 87-12-22 and 90-352. These similar buttons were found in 2 different areas. 87-12-22 was uncovered in 1987 at Dump Site 2, Unit 12, at level 0-10 cm, and 90-352 was recovered from 1990 assemblage in Unit 6, at the 10-20 cm level. Although these buttons were recovered from 2 different depths and levels, I believe that they had been used by the same person, evident by the characteristic "scarring" on the back of each button.

Considering the remoteness of the ranch houses of this era, it would have been difficult at times to just "go to the store" and buy buttons. This brought into being the popular use of "button jars" in the past, for very few garments were discarded with usable buttons. Buttons would be saved to be used later when they were needed. Some buttons were used repeatedly over a long period of time making them difficult to date. This could account for the higher percentage of buttons found at the site versus the other garment artifacts.

All 7 glass buttons in this assemblage had been reused numerous times. This is evident by the many needle marks on the back of each of these buttons. Glass is a very hard material, and it would have taken a long period of rough usage to account for the damage done to these buttons. This "scarring" could have been caused by repeated attempts with a needle to locate the holes on the underside of the button by a person who had little talent for sewing (personal observation 1991). This lack of talent could imply that the sewer was a worker at the ranch and who was responsible for his own mending. I have given this person a male gender because women during this era were usually well schooled in the matters of home economics and would have been better skilled at mending buttons.

The lack of black glass buttons at this site suggests that this was a working ranch. Black glass buttons would have been worn on clothes totally unsuitable for the type of work conducted on a ranch.

All of the buttons from the Rancho de los Peñasquitos were utilitarian in nature and most commonly used on shirts, under-

wear, and other clothing.

### Beads

Beads are worn to communicate status. The time period between 1860 and post-1912 was a popular era for the use of beadwork to decorate women's apparel. All of the beads recovered from this site, with the exception of 87-2-73, were made of glass. Many were pearl coated to imitate real pearl or cut to resemble jet. This imitation jewelry would suggest that the wearer had a fairly good income, but not one high enough to be able to afford the real item.

Eighty percent of the beads found at the ranch were recovered between 0 and 20 cm. This places their possible deposition at post-1912. The only beads that came from a depth deeper than that of the 1912 fire were the serpentine and the multifaceted beads.

The serpentine bead (87-2-73) was the only bead made from a semiprecious stone. It was recovered from Unit 2, at level 30-40 cm, during the 1987 excavations. Unit 2 was located in an open space midway between Dump Site 2 and Wing C. This bead had been worn by someone over a long period of time prior to when it became part of the assemblage. This is evident by the extreme wear pattern on the bead made by the string or cord by which it had been strung. Both ends of the bead are worn smooth, especially on the small end which has a pronounced "V" shaped groove on 1 side.

I was unable to place a date on this bead, but I believe it to be the oldest of all my artifacts. The lag time between the manufacturing of this bead and its deposition, the extent of its wear pattern at the time of its deposition, and the fact that it was recovered from a depth second only to bead 90-211 at 40-50 cm, all seem to point toward its antiquity. Even with the possibility of rodent intrusion throughout the different levels, I feel there is still enough evidence to support this conclusion.

In her book, The Universal Bead, Joan Erikson (1969:135-36) writes, "Serpentine, being usually green and marked with streaks or veins of white, as its name indicates [is] reminiscent of snakes". Some cul-

tures, even today, believe that the wearing of serpentine as an amulet will protect the individual from snakebite.

Though this is based purely on conjecture, I do not believe that this bead was worn by any of the Euro-Americans living at the ranch. Euro-Americans during this time period seemed to prefer industrially made beads. This is evident by the large number of this type of bead at the site. Eighty percent of the beads were found in close proximity to the main building and were buried at shallow levels. This natural stone bead was found quite some distance from the main house and at a fairly deep level. This was a simple bead made from a mineral that is not native to San Diego County. Rancho de los Peñasquitos was considered a working ranch, and its owners would have had the opportunity to hire migratory workers, for example, Native Americans and Mexican caballeros, all with a cultural upbringing that was different from the Anglo way. If this stone had been worn as an amulet, it could have suggested that the wearer was of alternate culture and belief system. Whether this bead was worn as an amulet or just as a pretty stone, it was an object that had been worn for a long period of time and had been well cared for.

The black multifaceted bead (90-211), was uncovered from Unit 9 during the 1990 excavations at the ranch. This unit was located contiguous to Wing C and could suggest an association with the house.

The extreme level (40-50 cm) from which this bead was recovered and the dates associated with the use of black glass beads both as a mourning jewelry and for clothing ornamentation coincides with the time given for George and Estefana Johnson's residency at the ranch. Because of the death of so many of her children, it would be reasonable to suggest that Estefana Johnson could have worn this bead, either on a necklace, or as a dress decoration while in mourning for her children.

The popularity of beadwork for decoration extends throughout the years given for Euro-American occupation at the ranch, both before and after the fire of 1912. This

bead could not only have belonged to Estefana Johnson, but to any number of other women who had lived at the ranch after her during the latter part of the 19th century and well into the 20th century.

Historical records show that subsequent owners of the Rancho de los Peñasquitos who lived there also had a home or "town-house" in the city. Life in the city was more social in nature, and fashion would have been more important. While living at the ranch, the owners' clothing style would have matched the lifestyle of a working ranch. Yet the quality of their clothing and accessories would have been superior to what the average worker at the ranch would have had. For the worker, his style of clothing was appropriate for his job.

#### REFERENCES CITED

- Albert, Lillian  
1949 The Complete Button Book. Doubleday, New York.
- Brown, Dorothy Foster  
1968 Button Parade. Wallace-Homestead, Des Moines.
- Couse, L. Erwina  
1941 Button Classics. Lightner, Chicago.
- Britannica Encyclopaedia  
1929 Vol. 4, 14th ed. London.
- Erikson, Joan  
1969 The Universal Bead. Norton, New York.
- Evans, Mary M.A.  
1949 Fundamentals of Clothing and Textiles. Prentice-Hall, New York.
- Gere, Charlotte  
1975 American and European Jewelry 1830-1914. Crown, New York.
- Hoover, Robert L., and Julia G. Costello  
1985 Excavation at Mission San Antonio, 1976-1978. Monograph No. XXVI Institute of Archaeology, University of California, Los Angeles.
- Luscomb, Sally C.  
1967 The Collector's Encyclopedia of Buttons. Crown, New York.
- Malouff, Sheila  
1983 Collectible Clothing with Prices. Library of Congress, Wallace-Homestead, Lombard, IL.
- O'Hara, Georgina  
1986 The Encyclopedia of Fashion. Harry Abrams, New York.
- Oxford English Dictionary  
1989 Vol XV, 2nd ed. Clarendon, Oxford.
- Sears, Roebuck and Company  
1897 Catalog. Chicago.  
1908 Catalog. Chicago.
- Shaw, William Harlan  
1982 American Men's Wear 1861-1982. Oracle, Baton Rouge.
- United States Government  
1986 IMAC (International Metals and Commodities) User's Guide. Washington, D.C.
- van der Sleen, W.G.N.  
1964 A Handbook on Beads. Library Cap Books, York, PA.
- Waugh, Norah  
1970 Corsets and Crinolines. Faber and Faber, London and Boston.
- World Book Encyclopedia  
1973 Field Enterprises, Educational, Chicago.
- Worrell, Estelle Ansley  
1979 America Costume 1840-1920. Stackpole Books, Harrisburg, PA.
- Yarwood, Doreen  
1978 Encyclopedia of World Costume. Charles Scribner and Sons, New York.