

PREHISTORIC ETHNICITY AND STATUS BASED ON TEXTILE EVIDENCE FROM ARICA, CHILE

Vicki Cassman*

Several scholars have hypothesized the existence of chiefdoms and multiethnic stratified social systems in the prehistoric coastal oases of Northern Chile. The present research, using textiles associated with 436 mummies from three sites (AZ-140, AZ-71 and PLM-9) in Arica, Chile, has allowed for a reevaluation of the social organization and the development of a new chronology. Textiles associated with the mummies were analyzed for yarn characteristics, weave, dyes, surface embellishments, form, repair and overall style. Also, a quality score was calculated for each textile. Contrary to expectations, the textiles, especially shirts, indicated the individuals studied were not ethnically diverse, since an assortment of shirt styles was found at all three sites, and many individuals had a variety of these styles. Status was evaluated using textile quality scores and qualities of nontextile grave goods. Status differences were evident but were not extreme, and it is suggested that achieved status existed but not ascribed rank. Finally, based on thirty-two new radiocarbon dates it appears the cultures once known, respectively as Cabuza, Maitas, San Miguel, Loreto Viejo and Regional Development were not successive temporally, but represent overlapping styles of the same group of people living in Arica from AD 900 to 1400.

Key words: Bioarchaeology, precolombian textiles, ethnicity.

Diversos investigadores han postulado la existencia en la prehistoria de sistemas sociales estratificados y multiétnico en las áreas costeras del norte de Chile. El presente estudio, utilizando los textiles de 436 momias de tres sitios (Az-140, Az-71 y Plm-9) en Arica, Chile, ha permitido una reevaluación de la organización social y el desarrollo de una cronología nueva. Los textiles asociados con las momias fueron analizados en cuanto a las características de la lana, el tejido, las tintas, los embellecimientos de las superficies, la forma, la reparación y el estilo. También se calculó un puntaje de calidad para cada textil. Al contrario de las expectativas, los textiles, especialmente las camisas, indicaron que los individuos estudiados no eran étnicamente diversos, debido a que se encontró un surtido de estilos de camisas en los tres sitios y muchos individuos tenían una variedad de estilos. El estatus fue evaluado usando la calidad de textiles y las cantidades de bienes funerarios no textiles. Las diferencias de estatus fueron evidentes, pero no extremas, sugiriendo que existía el estatus adquirido, pero no el rango adscrito. Finalmente, a base de 32 fechas radiocarbónicas, parece que las culturas conocidas como Cabuza, Maitas, San Miguel, Loreto Viejo y Desarrollo Regional no eran sucesivas temporalmente, sino que representan estilos superpuestos del mismo grupo de gente en Arica entre 900-1400 DC.

Palabras claves: Bioarqueología, tejidos precolombinos, etnicidad.

The modern city of Arica, in northern Chile, and neighboring coastal oases have been cited frequently as examples of prehistoric Andean multiethnic enclaves from the formative period about 500 B.C. through Spanish contact. Based mostly on the existence of several ceramic styles Andean scholars such as Agüero (this volume), Focacci (1983); Mujica et al. (1983); Mujica (1985); Murra (1975); Muñoz (1983, 1993), and Rivera (1975) have all made reference to the multiethnic character of prehistoric Arica in terms of highlanders versus locals. Until, recently there have been no systematic studies of artifacts to back this up. In addition, based on ethnohistoric data, Rostoworowski (1986) has suggested that Pacific coastal oases were most likely divided into groups based on different subsistence practices, namely maritime folks versus agriculturists.

In the present study textiles from three previously excavated sites from the collection of the Archaeological Museum of the Universidad de Tarapacá were chosen for size and completeness of their inventories. Two cemeteries were chosen from the valley and a third was chosen for its location at the coast. The sites are referred to as Azapa-140, Azapa-71 (valley sites) and Playa Miller-9 (coastal site). Mortuary remains predominate the more than thirty years of collecting, and textiles are the most prevalent grave good. In total 950 textiles from 436 mummies were analyzed in detail. Only recognizable garments were given full analyses. The other fragments were registered only.

According to the local literature these were three multiethnic contemporary Tiwanaku sites dating from A.D. 300 to about 1200. From the ceramic styles at least five cultures or cultural phases

* Department of Anthropology and Ethnic Studies, University of Nevada, Maryland Parkway, Las Vegas NV 89154-5012, U.S.A. E-mail: cassmanv@nevada.edu.

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had been associated with these sites; namely Ca-buza, Loreto Viejo, San Miguel, Maitas Chiribaya and Desarrollo Regional (Agüero this volume); Berenguer and Dauelsberg 1989; Espouey et al. 1995; Focacci 1982, 1983; Hidalgo and Focacci 1986; Muñoz 1983, 1989; Santoro and Ulloa 1985). With the help of a NSF Dissertation Improvement grant thirty-three new C-14 dates, based on textile fragments, indicated the three sites dated instead to approximately A.D. 900-1400 (using 1-sigma calibrated intercept dates). Therefore, the local chronology, based on ceramics, needs to be revised considering this new textile evidence.

For this research the following basic assumptions were made:

1. Textiles are generally the most personal and intimate artifacts of the social persona, and they are likely the grave good that will be the most sensitive social indicator (Arriaza 1988; Peters 1995; Schevill 1986; Seibold 1995).

2. If a small oasis like Arica was multiethnic in character, then ethnic groups would be competing for limited resources, and would likely have actively signaled their ethnic differences as opposed to sharing symbols (Femenias 1995; Owen 1992; Milton 1997; Carr and Neitzel 1995; Wobst 1977).

3. The definition of ethnic group used in this study is that of Jones (1997: xiii): any group of people who set themselves apart and/or are set apart by others with whom they interact or co-exist on the basis of their perceptions of cultural differentiation and/or common descent.

Among the textiles analyzed, there were 575 shirts, 169 bags, 76 taris (a banana-like textile), and 10 hats. Though textiles of many types were analyzed, only the shirt data will be discussed here, since shirts made up the majority of textiles found with the mummies. Shirts also would have been an ideal medium for communicating ethnic differences since they are highly visible garments and can be seen easily from a distance.

The 575 shirts analyzed were divided into seven visually distinct styles much as Ulloa (1981) originally defined them. All styles were found at all three sites. The vast majority of shirts (408 of 575) were plain or with narrow stripes and these were found throughout the entire period, from A.D. 900 to 1400. The other shirts including the two-fabric, striped and embroidered shirts were found to cluster toward the middle of the range of dates given above (Table 1).

Table 1. Shirt Styles and Substyles

I	plain
II	two fabric
III	embroidered
IV	narrow stripes IVB Discontinuous Stripes IVBW Trapezoidal Shape
V	Wide stripes VB Discontinuous Stripes VBW Trapezoidal Shape VB&W Discontinuous Stripes and Trapezoidal Shape
VI	Fully striped VIBW Trapezoidal Shape
VII	miscellaneous

From the shirt evidence it appeared unlikely that these individuals represented a variety or even two different ethnic groups since no styles were found in isolation. Excluding plain shirts, which were too common to be of analytical use for ethnicity, forty-three individuals or 10% of the population had combinations that included all of the various striped and embroidered styles (Table 2). In other words, shirt styles were contemporary and shared, and not found to be exclusive to some individuals. Therefore, the shirts could not be considered symbols of separate ethnic or archaeological cultural groups. Instead, there were many shirt styles to choose from and the variation could have represented a variety of social roles, such as clan memberships, or variations in personal taste, but the variation did not appear to be related to ethnicity.

It is interesting to note that the ceramic evidence though more limited in numbers than the shirts also indicated a mixture of ceramic types within individual graves. At all three sites two or more ceramic styles were commonly found with single individuals. The explanation that a coveted older or "antique" ceramic was placed with a later one is too simplistic. Future ceramic studies need to specifically address this issue.

Table 2. Combinations of Different Shirt Styles Associated with Single Individuals

Style	Associated Styles							N=
I	-	II	III	IV	V	VI	VII	262
II	I	-	III	IV	V	VI		47
III	I	II	-	IV	V			54
IV	I	II	III	-	V	VII	VII	146
V	I	II	III	IV	-	VI		39
VI	I	II		IV	V	-	VII	23
VII	I			IV		VI	-	5

Clark (1993) and Boytner (1991) have reported that the same shirt styles are found in the Osmore Valley, 200 kilometers to the north of Arica. Future studies of ethnicity during the period A.D. 900 to 1400 will need to assume a more regional perspective, including neighboring sites both north and south of Arica.

Status

Like the question of ethnicity, no systematic evidence for status had been previously sought and it was thought that perhaps different styles might have been related to status. To investigate status, quality scores for all textiles associated with the individuals from the three sites were calculated and analyzed. The quality score was calculated based on the number of textile production steps needed (Table 3).

The calculations for each textile found with an individual were added to give a total quality score for each individual. There was a range of total quality scores of zero to sixty-five.

First gender differences were examined. Men had significantly more decorated shirts 58% compared to women 40% but in the quality scores there were no significant differences found since finer quality fabrics were often used by women. Hair-styles, as previously reported by Arriaza et al. (1986) distinguished men and women in a dramatic way. Females commonly had lateral braids while men had a wide variety of complex styles to choose from. More dramatically than the shirts, men's hair-styles indicated that males probably had a greater variety of social roles.

Surprisingly, individuals with high quality scores and many grave goods frequently had highly worn or highly repaired textiles among their possessions. This is contrary to expectations for a high status individual. The number of grave goods per individual was also compared to the textile data. The number of non-textile grave goods per individual ranged from zero to twenty-two. Individuals with high quality scores and many grave goods had the same types of textiles/objects as those with low scores, they just had more of them. Therefore, the status differences observed were

more in line with achieved status with some individuals having greater wealth accumulation as opposed to ascribed status or formalized rank differences.

Another significant pattern for status differences was found in the intersite analyses. The individuals from the coastal site, Plana Miller 9, associated with a maritime subsistence had significantly more textiles of higher quality and had more grave goods than the people from the two sites associated with agricultural pursuits.

Table 3. Textile Production Steps and Quality Scoring

Quality Points:	Production Steps
<u>Baseline</u>	
1	spun yarns
2	plied yarns
1	nonloom technique
2	loom woven fabric but...
...2.5	if loom woven & one dimension > 80 cm
...3	if loom woven & one dimension > 130 cm
<u>Additional For:</u>	
1	fabric density < 1.4 *
1	one dyed color
2	two to five dyed colors
3	six or more dyed colors or five dyes and no natural colors
1	embroidery such as on seams but...
...2	if embroidery wide i.e. seams >5 rows
1	striped design with continuous warps but...
...2	if there are discontinuous warp stripes
1	exotic items (i.e. feathers or shells)
1	complementary warp techniques
1	supplementary pile
<u>Subtract For:</u>	
-1	1-10 % repairs
-2	11-50% repairs
-3	>50% repairs
-3	reutilization (e.g. old hat now a bag, but no repairs)

*Fabric density was calculated using the following equation (see Cassman 1997 and 2000 for a discussion of the derivation of this equation): (warp diameter/warps/unit) + (weft diameter/wefts/unit).

In conclusion the systematic study of mortuary textiles did not support the multiethnic hypotheses. Nor did the textiles

indicate the existence of a complex chiefdom with formal positions of rank. Instead, there appeared to have been several contemporary communities belonging to the same ethnic group who had a variety of textile styles to choose from. The indi-

viduals who relied primarily on maritime resources as opposed to agriculture appeared to have been able to accumulate greater wealth, though there were some agriculturists who were able to accumulate wealth too. Finally, the clustering of the numerous radiocarbon dates from these textiles will require us to reconsider the late and post-Tiwanaku chronology in Arica.

References Cited

- Arriaza, B.
1988 Modelo Bioarqueológico para la Búsqueda y Acercamiento al Individual Social. *Chungara* 21:9-32.
- Arriaza, B., M. Allison, V. Standen, G. Focacci, and J. Chacama
1986 Peinados Precolombinos en Momias de Arica. *Chungara* 16-17: 353-375.
- Berenguer, J., and P. Dauelsberg
1989 El Norte Grande en la Orbita de Tiwanaku. In *Prehistoria*, edited by J. Hidalgo, V. Schiappacasse, H. Niemeyer, C. Aldunate, and I. Solimano, pp. 107-128. Editorial Andrés Bello, Santiago.
- Boytner, R.
1991 Textiles From The Lower Osmore Valley, Southern Peru: A Cultural Interpretation. Unpublished manuscript.
- Carr, C., and J. Neitzel
1995 *Style, Society and Person: Archaeological and Ethnological Perspectives*. Plenum Press, New York.
- Cassman, V.
1997 A Reconsideration of Prehistoric Ethnicity and Status in Northern Chile: The Textile Evidence. Ph.D. dissertation, Department of Anthropology, Arizona State University, Tempe. Catalog No.9809447, University Microfilms, Ann Arbor.
2000 Prehistoric Andean Ethnicity and Status: The Textile Evidence. In *Beyond Cloth and Cordage: archaeological textiles research in the Americas*, edited by Penelope Drooker and Laurie Webster, pp. 253-266. University of Utah Press, Salt Lake City.
- Clark, N.
1993 The Estuquiña Textile Tradition. Ph.D. dissertation. Department of Anthropology, Washington University, St. Louis, Missouri. Catalog No.9417571, University Microfilms, Ann Arbor.
- Espouey, O.
1995 Final Report for Fondecyt Project 1930202. Unpublished document. Santiago, Chile.
- Femenias, B.
1995 Ethic Artists and the Appropriation of Fashion: Embroidery and Identity in the Colca Valley, Peru. *Contact, Crossover, Continuity: Proceeding of the Fourth Biennial Symposium of the Textile Society of America*, pp. 331-341. *Textile Society of America, Inc. Los Angeles, California*.
- Focacci, G.
1982 Excavaciones en el Cementerio Playa Miller 9. Estudios de las Poblaciones Costeras del Extremo Norte de Chile. In *Documentos de Trabajo* 2, edited by Iván Muñoz and Julia Cordova, pp. 126-213. Universidad de Tarapacá, Arica.
1983 El Tiwanaku Clásico en el Valle de Azapa. In *Asentamientos Aldeanos en los Valles Costeros de Arica*, Documento de Trabajo 3, edited by Iván Muñoz and Julia Cordova, pp. 94-112. Universidad de Tarapacá, Arica.
- Hidalgo, J., and G. Focacci
1986 Multiethnicidad en Arica, Siglo XVI. Evidencias Etnohistóricas y Arqueológicas. *Chungara* 16-17:137-147.
- Jones, S.
1997 *The Archaeology of Ethnicity: Constructing Identities in the Past and Present*. Routledge, London.
- Milton, K.
1997 Real Men Don't Eat Deer. *Discover* 53:46-48.
- Mujica, E.
1985 Ecological Complementarity in the South-Central and Southern Andes. In *Andean Ecology and Civilization*, edited by S. Masuda, I. Shimada, and C. Morris, pp.103-140. Papers from The Wenner-Gren Foundation for Anthropological Research Symposium No. 91. University of Tokyo Press, Japan.
- Mujica, E., M. Rivera and T. Lynch
1983 Proyecto de Estudio Sobre la Complementariedad Económica Tiwanaku en los Valles Occidentales de Centro-Sur Andino. *Chungara* 11:85-109.
- Muñoz, I.
1983 El Poblamiento Aldeano en el Valle de Azapa y su Vinculación con Tiwanaku (Arica - Chile). In *Asentamientos Aldeanos en los Valles Costeros de Arica*, Documento de Trabajo 3, edited by I. Muñoz and J. Cordova, pp. 43-92. Universidad de Tarapacá, Arica, Chile.
1989 El Período Formativo en el Norte Grande. In *Prehistoria*, edited by J. Hidalgo, V. Schiappacasse, H. Niemeyer, C. Aldunate, and I. Solimano, pp. 107-128. Editorial Andrés Bello, Santiago.
- 1993 Spatial Dimensions of Complementary Resource Utilization at Acha-2 and San Lorenzo. In *Domestic Architecture, Ethnicity, and Complementarity in the South-Central Andes*, edited by Mark Aldenderfer, pp. 94-102. University of Iowa Press, Iowa City.
- Murra, J.
1975 El Control Vertical de un Máximo de Pisos Ecológicos en la Economía de las Sociedades Andinas. En *Formaciones Económicas y Políticas del Mundo Andino*, edited by J. Murra, pp. 58-115. Instituto de Estudios Peruanos, Lima.
- Peters, A.
1995 Paracas Cavernas, Paracas Necropolis and Ocucaje:

- Looking at Appropriation and Identity With Only Material Remains. *Contact, Crossover, Continuity: Proceeding of the Fourth Biennial Symposium of the Textile Society of America*, pp. 305-317. Textile Society of America, Inc. Los Angeles, California.
- Owen, B.
1992 Multiethnicity in the Prehistoric Osmore Valley, Peru. Paper presented at the 91st Annual Meeting of the American Anthropology Association, San Francisco.
- Rivera, M.
1975 Una Hipótesis sobre Movimientos Poblacionales Altiplánicos y Transalpiánicos a las Costas del Norte de Chile. *Chungara* 5:7-32.
- Rostworowski, M.
1986 La Región del Colesuyu. *Chungara* 16-17:127-135.
- Salomon, F., and G.e Urioste Translators
1991 *The Huarochiri Manuscript: A Testament of Ancient and Colonial Andean Religion*. University of Texas Press, Austin.
- Santoro, C., and L. Ulloa
1985 *Culturas de Arica*. Ministerio de Educación. Santiago.
- Schevill, M.
1986 *Costume as Communication*. University of Washington Press, Seattle.
- Seibold, K.
1995 Dressing the Part: Indigenous Costume as Political and Cultural Discourse in Peru. *Contact, Crossover, Continuity: Proceeding of the Fourth Biennial Symposium of the Textile Society of America*, pp. 319-329. Textile Society of America, Inc. Los Angeles, California.
- Ulloa, L.
1981 Estilos Decorativos y Formas Textiles de Poblaciones Agromarítimas, Extremo Norte de Chile. *Chungara* 8:109-135.
- Wobst, M.
1977 Stylistic Behavior and Information Exchange. In *For the Director: Research Essays in Honor of James B. Griffin*, edited by C. Cleland, pp. 317-342. University of Michigan Museum of Anthropology. Anthropological Papers 61, Ann Arbor.