

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Textile Society of America Symposium
Proceedings

Textile Society of America

1996

The Great Cloth Burial at Cahuachi, Nasca Valley, Peru

Elena Phipps

The Art Institute Of Chicago

Follow this and additional works at: <https://digitalcommons.unl.edu/tsaconf>

Phipps, Elena, "The Great Cloth Burial at Cahuachi, Nasca Valley, Peru" (1996). *Textile Society of America Symposium Proceedings*. 871.

<https://digitalcommons.unl.edu/tsaconf/871>

This Article is brought to you for free and open access by the Textile Society of America at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Textile Society of America Symposium Proceedings by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

The Great Cloth Burial at Cahuachi, Nasca Valley, Peru

Elena Phipps

Introduction

William Duncan Strong's excavation team, working at the base of the major ceremonial mound at Cahuachi, in the Nasca Valley, on the South Coast of Peru, encountered evidence of a thickly woven plain white cloth (fig.1). His journal entry for September 1, 1952 reads:

“ ‘The Carpet Site’. To dig.
Opened up the cloth ‘tomb’ at Cahuachi—proved to be a layer of cloth—several centimeters thick, 30 ? meters long – 140 cm broad and 120 (*mas o menos*) deep. The damndest thing I have yet seen... Dug below it a meter or so and hit solid *caliche* (maritime clay) no tomb—no necropolis. Damn.”¹

Strong was disappointed at the findings of the cut, subsequently referred to as the “‘Rag Carpet’ site.” What he had hoped to find, were richly endowed burials, on the scale of the Paracas Necropolis. What he had actually found was probably the largest single piece of cloth ever woven in the Western Hemisphere, buried at the base of the largest ceremonial architectural mound in the South Coast of Peru².



Figure 1 1952 excavation of the "Great Cloth".
Photo: Anthropology Department, Columbia University Archives.

In the spirit of the progressive, systematic archaeology of the 1950s, Strong's workmen dug four test holes directly through the cloth³.

The resulting cloth fragments were shipped to Columbia University, along with other artifacts and documents from the excavation, where they currently reside in the William Duncan Strong Collection Study Room, in the Department of Anthropology⁴.

The Cloth:

At present, the remains of the Great Cloth (fig.2) consist of four large fragments.⁵ Two appear to be previously untouched, since excavation, and all are full of fine, powdery dirt. Their current, ragged and fragmentary state is due, for the most part, to the excavation methods, and not to natural deterioration of the cloth itself—which had been generally well-preserved in the dry desert climate. Some sections are intact and sturdy.



Figure 2 Detail, section of "Great Cloth". Photo: author

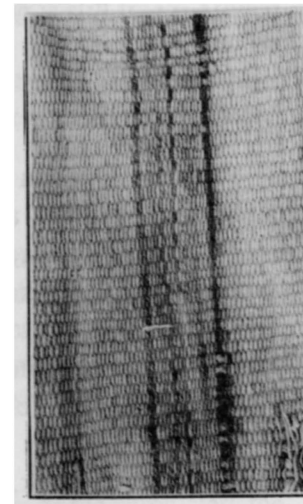


Figure 3 Detail: Warp faced plain weave with brown warp stripes. Photo: author

One section was of better condition, and whiter in appearance⁶; two have traces of brown warp stripes, (fig. 3) which disappear along its length. While some coloration differences can be noted, all appear to be the same type of cloth. The three main sections (fig.4) are basically short and wide: a forth is so ragged that it is difficult to open up to measure⁷. All have at least parts of one weft selvage preserved. In one piece, I have identified a complete loom width, selvage to selvage, of 220 inches—or over 18 feet. Sewn to this is a second fragmentary piece of cloth, which also has part of one selvage.

The extant textile remains representing approximately 20½ feet of length and 18 ½ feet of width of cloth. We cannot know the actual original size of the complete cloth. Strong, at the time of the excavation, estimated the length of the cloth to be at least 50-60 meters or between 164-200 feet.

This extraordinary textile, by its monumental size and related archaeological context, raises many questions including how it was made, why it was made, and why it was buried. Although these questions cannot be answered directly, I would like to explore these issues in relation to the physical characteristics of the textile, and the archaeological record, and in general, about the meaning of such a cloth in the Nasca region.

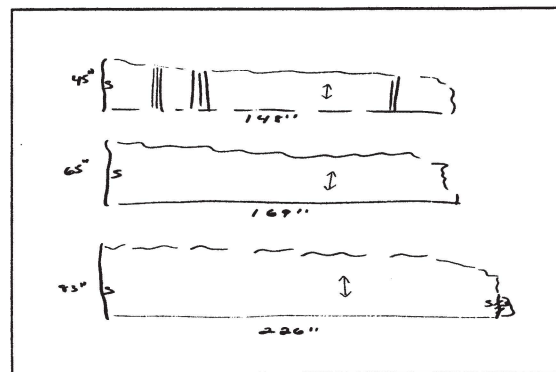


Figure 4 Schematic drawing of the three main sections of the Cloth. Drawing by author.

Archaeological Context

Cahuachi, the largest and most important archaeological site in the South Coast of Peru, is located along a tributary of the Rio Grande river, approximately 500 kilometers south of Lima (fig.5). The site extends for many kilometers, consisting of multiple mounds and open plazas, some of which are delineated by three-sided wall enclosures. Today, the mounds blend into the desert, making it difficult to distinguish between man-made architecture and the natural hills. To the North and South, lie the great pampas.

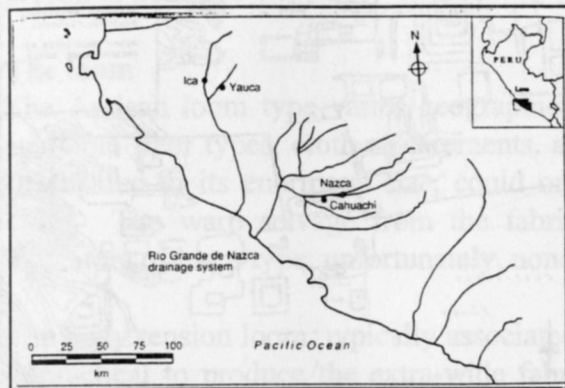


Figure 5 Map of South Coast showing Nasca Drainage. After Silverman, 1993 fig. 22.3



Figure 6 Nasca Lines photographed in 1926 by A.L. Kroeber. Photo: Courtesy of The Field Museum, Chicago

Water is scarce in the Valley, where the current average rainfall is between 0 and approx. 25 millimeters per year⁸. In other words, it never rains. The water of the Rio Grande originates in the highland watershed which flows towards the sea. When it reaches the Nasca area, it flows underground for kilometers at a time, resurfacing lower down valley. At Cahuachi, however, there are several fresh water springs, in which 'sweet' underground water surfaces,⁹ only several hundred meters from the main ceremonial precinct. The presence of this precious water no doubt contributed to the siting of Cahuachi, and to its tremendous ceremonial meaning-- as a place in the desert which always has water. Across the vast pampas -- immediately adjacent to the site-- are the enigmatic Nasca line drawings, (fig.6) some of which are in direct orientation to the main ceremonial complex¹⁰.

Cahuachi has been of interest to archaeologists since the beginning of this century and several major excavations have been conducted. Because of the rich burials associated with the site, -- which has undergone extensive looting--we know that Cahuachi was a place of privilege and ceremony. A. L. Kroeber in an expedition for the Field Museum in 1926 excavated a series of burials yielding many richly embroidered textiles, and other ceramic remains. William Duncan Strong, in his 1952-1953 field season, applied a stratigraphic approach to the excavation of Cahuachi, (fig.7) establishing a chronology of the Nasca culture¹¹.

The Nasca culture flourished on the South Coast between 0-700 AD and evidence of occupation for all cultural phases are found at Cahuachi. The time of its greatest

occupation is considered to be during the Nasca 3 phase of the culture sequence, roughly between 200-400AD¹².

Strong published his excavation report in 1957, in which he described the burial of the Cloth as:

“... a simple, plainweave cloth which occupied a trench ...The cloth itself, from selvage to selvage, proved to be 7 m. in width and appeared to be one single piece. It was complexly folded in from side to side in rough accordion pleats, and then folded end over end at least three times” (Strong 1957:16).

The Making of the Cloth

The weave configuration of the Cahuachi Great Cloth is a warp-faced plain weave with 60 warps and 14 wefts per inch. The warp yarns are composed of 3 Z-spun strands plied into S. The weft is generally a thicker and heavier yarn, composed of 5 Z-spun strands plied into S¹³. (fig. 8). The Z to S is typical of the yarn configuration of the South Coast. What is unusual, is the warp-faced surface of the fabric.¹⁴

For the area of cloth represented by the extant fragments, we can estimate that over 1 million feet of cotton yarn would have been used. If the fabric was truly the 50 meters or approx. 164 feet which Strong estimated, that would mean well over 9 million feet or over 1,704 miles of yarn would have been spun for creating this textile. If we apply Goddell's calculations for yarn production rates—knowing that it is rather inappropriate for various reasons—it can be roughly estimated that approx. 44,000 hours-- the equivalent of 5 years time—would be required to spin this amount¹⁵. From this it is obvious that the yarn would most likely have come from various artisans, in what could have been a type of *m'ita* labor contribution-- an Andean principle of participation in communal rotational work obligations¹⁶.

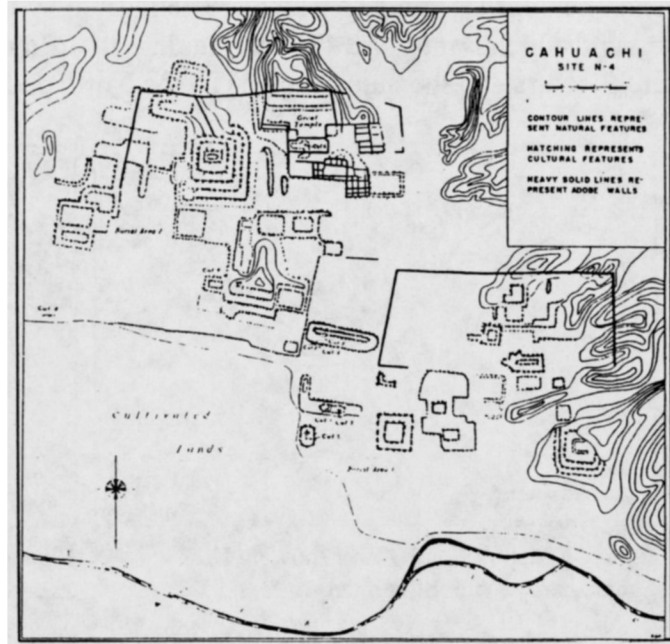


Figure 7 Map of Cahuachi. After Strong 1957, fig. 4. The cloth burial is reported to be West of the Great Temple.



Figure 8 Detail: Macro photo, 10x. Photo: author

Yarns once produced, must be laid out and measured, for the preparation of the warp. Warp preparation in Andean culture where textiles are produced for pre-defined purposes, is a very important part of the weaving process. Generally, it involves the passing of a continuous yarn around a series of measuring rods set in a pre-defined position calculated for the intended size of the finished textile. The handling of the enormous warp length for the Great Cloth would certainly have required several people, as either the yarn for the warp is walked back and forth across a pathway created with markers, or passed, from person to person¹⁷.

The loom

The Andean loom type varies geographically, regionally, and culturally, depending on available fiber types, cloth requirements, and local traditions. The weaving of the Great Cloth, due to its enormous size, could only have been accomplished on a specialized loom. The warp selvage from the fabric itself, would have been one of the best indicators of loom type: unfortunately, none were preserved.

The body tension loom, typically associated with South Coast weaving, would have been impractical to produce the extra-wide fabric, due to the weight of over 300 pounds of yarn which would have to be maintained by the weavers throughout the process. Fabric widths produced on this type of loom generally do not exceed the span of the weaver's arm reach.

Wide loom weaving, used by the later Huari and Inca cultures for their short and wide tapestries, is considered to have been accomplished on vertical, upright looms. During the Spanish Colonial period, Andean weavers used this type of looms to produce extra-wide tapestries and rugs. The vertical loom, associated with these highland weavers, was generally used for producing weft-faced, and weft-oriented fabrics. With its taught warp in fixed tension, it would most likely not have been used to produce the warp-faced fabric of the Great Cloth.

I believe the horizontal extension of the warp, would have been the most practical mode of weaving a fabric of this dimension¹⁸, on some type of staked-out ground loom or possibly a modified body tension loom¹⁹. Stretched out horizontally, the weavers could sit and weave the cloth, following its progress, as a journey across the desert. In the persistence of this tradition, it is possible to see contemporary examples of Andean weavers using a Spanish-style treadle loom-- in which the warp would normally be rolled up onto a backbeam—with the warp extended out horizontally.

The weaving of the Great Cloth must have been accomplished by multiple weavers, working together. A detail from the Cloth (fig.9) shows that occasionally, the weft yarn skips a row at the selvage edge. This is evidence that two separate weft yarns were interlaced, an indication that multiple weavers could have been involved. We know that this occurs ethnographically.

The selvage on the cloth which is preserved is clearly a weft selvage. The selvage edge is extremely straight, and does not curve from variable tension, indicating expertise and control during the weaving process. While most wefts transverse the entire width of the cloth, occasional wefts turn around in mid-pass, forming a slight wedge. These were probably intentionally woven-in in order to compensate for uneven tension in the warps, and confirms the warp direction of the fabric. Some few weaving mistakes, consisting of a weft apparently missing occasional single warps in the shed-- probably due to a loose heddle-- can be seen. Throughout all fragments, the plainweave cloth is remarkably even and uniform. The accomplishment of the weaving of this oversized cloth required expertise and planning: its extraordinary size, though, is what stands out.

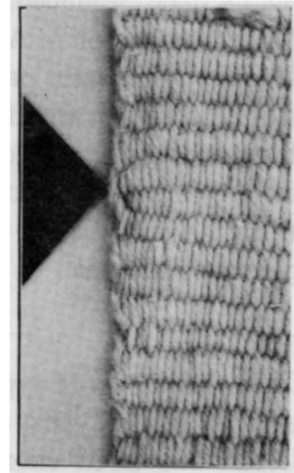


Figure 9 Macro photo 10x
Selvage with wefts skipping rows. Photo: author

Comparative Oversized Cloths

If we look for a pan- Andean tradition which produced oversized cloth, the Cahuachi textile shares some features with the outer wrappings of funereal bundles, from other areas. Tello, who excavated the Paracas Necropolis—located North of the Nasca Valley, where over 490 mummies were found wrapped in layer upon layer of richly decorated cloth--reported a Paracas Mummy #49 (fig.10) as having an outer wrapping composed of two lengths- each approx. 65 feet long x 6 feet wide²⁰. Three Necropolis mummies in the collection of the American Museum of Natural History, were unwrapped in the 1930s. The outer wrappings of these mummies were plainweave cotton cloth sewn into bags. These bags were constructed of long strips of cloth, folded across their width, and sewn up along one length. Each were composed of strips approximately 45 inches wide x 20 feet long.²¹ During a salvage operation of a pyramid located in downtown Lima, a mummy bundle dated to ca. 1250 A.D. was found, with a large amount (nearly 200 kilograms) of cotton wrapping cloth. One cloth from the bundle was reported to be over 40 meters long, composed of a single web of cloth, woven with thick 'roving-like' cotton weft yarns²². While these exceptional burial cloths come, perhaps as close to the loom products, as any other comparable known examples, functionally, the Great Cloth, is not associated with a human burial.



Figure 10 Paracas Mummy 49, Museo Nacional, Lima. After Tello, 1921 fig. 87

The Folding of the Cloth

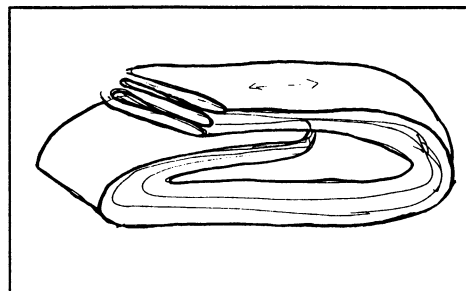
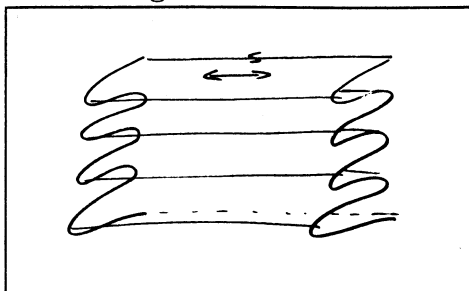


Figure 11a, b Drawings by author following descriptions in archival documents from “RLS”

The description from the excavators working at Cahuachi, was that the Great Cloth appeared to be one piece, accordion-folded, and then folded, end over end, upon itself (fig. 11 a and b). My interpretation from excavation notes, and upon examining the record photography, is that the warp direction of the cloth must have followed the length of the trench²³ I still have some trouble, however, reconstructing the method of folding.

Fold marks are still visible on some of the Cloth sections, particularly in one piece, where indication of three fold lines can be seen. The folds occur between 14” - 20” apart, and follow the same positive direction, across the width of the fabric. This means that the fabric at that section was not accordion-pleated-- which would have alternated positive and negative folding marks-- rather, it must have been folded layer over layer in the same direction (fig. 12a and b)—probably folded in half, first. How these folds were then oriented into the trench is unclear.

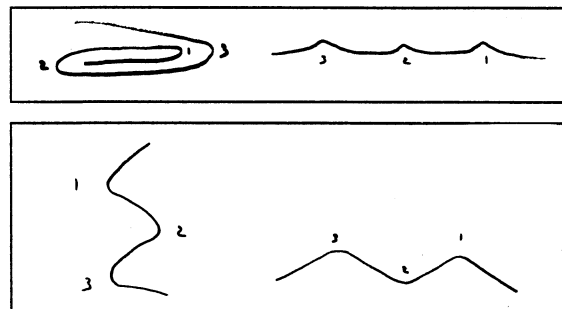


Figure 12 a,b Two alternate methods of folding. Drawings by the author.

Although the burial of significant textiles and textile caches can be seen from the earliest manifestation of ritual life in the Andes, the ritualized folding of cloth not associated with human burial, is not well documented. Folding for burial in some cases seems to enable the textile offering to fit inside a particular vessel or container. For the Cahuachi cloth burial, the elaborate folding and the size of the trench which it occupied would seem to indicate that the cloth had some other purpose prior to its ritual interment.

The Function of the Cloth

Strong and others on the excavation team were hesitant to speculate as to the possible function of this cloth. Two proposals—one, that it had been a cloth wall to make a palace, and two, that it had been a carpet to walk on—were both volunteered by the local workmen during the excavation. While matting and other hard fiber constructions have been preserved, we have no archaeological documentation of Andean people walking on textile carpets prior to the Spanish introduction of the idea. There is no evidence that

such a function was associated with textiles²⁴. There are, however, many ethnographic examples of textiles used as ritual surfaces, in the form of “mesa’s” or ritual tables, such as those used by regional curanderos, for curing and other sacred ceremonies, throughout the Andes.

None of these address the unique characteristics of our Great Cloth, and its burial circumstances, located in sterile soil-- indicating no other activity was conducted in the area. Amongst the other archaeological cuts which Strong excavated, no other comparable sterile burial conditions had been encountered. Most of the mound and architectural structures—and even human burials-- contained refuse and other architectural fill. The space, then, was preserved. It could be interpreted as a sacred space. In its interment in the largest open plaza, the Great Cloth most likely served in public ritual, and warrants its consideration of having a public ceremonial component, in both its use as an object, and in the process of its burial. This should be examined in the context of Cahuachi’s sacred and ceremonial function.

Interpretation

In the past, archaeologists have interpreted the site of Cahuachi as the major political center of the Nasca culture. Recently, this interpretation of the site has been modified to our understanding of Cahuachi as a ceremonial center. Helaine Silverman, who excavated at Cahuachi in 1984-85, further emphasizes the concept of the site as a pilgrimage center, finding parallels with a contemporary event at the sanctuary of Yauca, in the nearby Ica Valley, where she observed the stages of a once-yearly pilgrimage (fig. 13) to the shrine²⁵. This involved the crossing of the desert by the local people, on foot and by bus, arriving at the empty ceremonial site, filling to capacity the once-empty plaza, then once again, leaving --after the festivities-- a deserted, wind-swept city.



Figure 13: Pilgrimage in 1986 across the desert to shrine of Yauca. After H. Silverman, 1990

Movement across the desert through pilgrimage and the active use of the Lines, by the Nasca people, by walking, running, dancing etc. has been further discussed in Gary Urton’s study of the ritual sweeping of the Lines²⁶. He argues that the *pampa* was an area of social interaction and the act of making and maintaining the lines was a social construction. This is based on ethnographic – and archaeological analogy -- of the *chhiutas* or defined strips of community- held land-- sacred and ceremonial spaces-- whose responsibility for maintenance was divided among the *alluys* --the socio-political groups composing Andean communities.

This concept of social construction and ritual obligation involving the lines and sacred spaces can be applied to the making of the Cahuachi Great Cloth, where the amassing and preparation of the raw materials, the spinning of the quantity of yarn, the measuring out

and preparation of the warp, the construction of the special loom, and the process of weaving, all were a part of some larger community goal. That a relationship exists between the making of sacred lines and textiles can be seen in a group of geoglyphs nearby in Cantayoc, where a series of the Nasca lines form what is now called the needle and ball of yarn. Another is called the loom (fig. 14) .

Conclusion

That the enormous cloth was produced at all, can be seen, perhaps, as a tribute to the weavers of the region, but more discretely, provides evidence of the integration of the act of weaving into the sacred life of the Nasca people. The Great cloth burial was a ritual interment of a remarkable object. In the context of the largest ceremonial center of the South Coast of Peru, adjacent to the line-marked pampas of the desert, and near the life-giving sweet-water springs nearby, it was in good company. From production, use and interment, it marks an extraordinary moment of Andean conceptualism.



Figure 14 “The Loom” Photo: after M. Bridges *Markings* (New York: Aperture, 1986 p.21)

Endnotes

- ¹ W. D. Strong *Journal* 1952-1953 vol 1 p. 65. All excavation documents are stored with Professor Terrance D’Altroy, the Anthropology Department, in the W. D. Strong archive, Columbia University.
- ² The actual location of the trench is in question: Strong notes that it was found to the West of the Great Temple. A drawing by R. Stigler in his *Journal* Vol. II in the Archives shows a map with Cut 2, a “little mound”, and then the carpet site. Silverman believes it to be located at Strong’s ‘Cut 8’ on his map. See Silverman, *Cahuachi in the Ancient Nasca World* (Iowa City :University of Iowa Press, 1993) p..53.
- ³ Below the textile: “..found two skull fragments under [test pit] #4 (below textile); a post-fired sherd was found under [test pit] #1. Several lumps of adobe and large river boulders in hole [test pit] #3 below textile.” RLS Artifact Data Sheet, 26 Aug [1952?] in the W. D. Strong Archive, (NY: Columbia Univ.) .
- ⁴ The boxes had been sent to Jane Dwyer, in the early 1970s. They were returned virtually untouched, in 1983, at the commencement of the preservation project, funded by the National Science Foundation, supervised by Professor Terrence D’Altroy. The cloth was not incorporated into the NSF project, and rather, has been only thoroughly examined recently in conjunction with this presentation..
- ⁵ The technical examination of the Cloth was conducted by the author at the Textile Conservation Department, MMA.. Travel for this study was funded, in part, by an MMA/CINOA Travel Grant. Photos used for this publication were digitally printed thanks to Barbara Bridgers, MMA Photo Studio.
- ⁶ One puzzling comment on box #3 written in pencil says “the number was lost at the cleaners.” There is in fact one remnant of a paper tag stapled to one edge of the fragment. There are no records as to whether these had been given to a cleaners (Chinese laundry?) The pieces remain covered with a fine powdery soil, which seems to indicate that they have not, in fact, been cleaned.
- ⁷ The fragments measure respectively: **Piece #1** (Box 1) 48 “ H x 148” wide: 1 partial loom width with one weft selvage. White with some brown stripes near edge. brown staining. **Piece #2** : ca. 48” x 48”

extremely fragmentary similar to Piece #1 brownish color. **Piece #3:** (Box 3) 83" H x 224" wide, 1 loom width with two weft selvages seamed to second fragment with one weft selva. Complete loom width 220". White, intact. A seam stitched with white cotton thread, with ca. 6" extant second fabric attached. **Piece #4** 68" H x 169" wide, (Box 4) White cotton, fragmentary, with some large area intact.

⁸ Silverman, *Cahuachi* 1993, p.3

⁹ I was shown the area in 1983 by the current owner of the Hacienda Cahuachi. He indicated that the water was different "sweeter" than the saline water of the river.

¹⁰ Anthony Aveni "Order in the Nazca Lines?" In ed. A. Aveni, *The Nazca Lines* (Philadelphia: American Philosophical Society, 1990) pp 43-113. Also H. Silverman, *Cahuachi* 1993, pp 305-309.

¹¹ W. D. Strong, *Paracas, Nazca and Tiahuanacoid Cultural Relationships in South Coastal Peru*. Memoirs of the Society for American Archaeology 13, New York, 1957.

¹² Dating of the culture is based primarily on Strong's ceramic sequence derived from his stratigraphic excavations. See Silverman *Cahuachi* 1993 :pp.30-42 for in-depth discussion.

¹³ In some areas, a 3-strand weft yarn, identical to the warp yarn was used.

¹⁴ See E. Phipps *Cahuachi Textiles in the William Duncan Strong Collection: Cultural transition in the Nasca Valley, Peru*. (Ann Arbor: University Microfilm) 1989.

¹⁵ J. Bird, "Fibers and Spinning Procedures in the Andean Area" A. Rowe, E. Benson and A. Schaffer eds. *J. Bird Pre-Columbian Textile Conference* (Washington, D.C.: The Textile Museum, 1979) pp. 13-17.

¹⁶ See J. Murra "Economic Organization of the Inca State" Suppl.1 to *Research Economic Anthropology* Greenwich, 1980.

¹⁷ Henri Stierlin, in his study of the Nasca Lines in *Nazca: La Cle du Mystere* (Paris: Albin Michel, 1983), makes a comparison to the action of warping of a fabric, in which a set of warp lengths are created by continuous back and forth movement of the yarns to the construction of the zigzag and geomorphic lines in the desert. He further argues that the lines are constituted within the framework of textile production.

¹⁸ A problem however, would have been what to do with the finished weaving, as it progresses. It would normally be rolled onto the loom bars. The roll would eventually get too large and interfere with the weavers. One solution would be to use a circular warp, however, this is not a traditional Andean method.

¹⁹ We cannot know exactly what type of loom would have been used, we do know that at least one pair of straight of loom bars spanning the width of the 18' wide fabric would be required. When we look at the Nasca landscape, the presence of high, hardwood trees is limited. *Cana*—or type of cane—however, grows in the marshlands. Silverman, during her 1984 excavation at Cahuachi, (Silverman, *Cahuachi* 1993, p. 181) found several bundles of long, thin canes, which she interprets as loom parts. While these probably are, I believe that cane loom bars could not have held the tension of the warps that our Cloth would require. It is likely that the wood could have come from the highlands-- or at least 'up valley' such as used for making rug looms, documented in the 19th century (J. Vreeland, "Vertical Loom in the Andes Past and Present" *Irene Emery Roundtable 1977 Proceedings*, Washington, D.C.: Textile Museum, 1979, pp 188-211). This import of wood for the loom could have been the contribution of communities of the 'upper moieties'—in the Andean division of intra-regional community interaction.

²⁰ Julio C. Tello *Antiguo Peru: Primera Epoca* Lima: Editado por la Comision Organizadora del Segundo Congreso Sudamericano de Turismo, 1929) pg. 137. Two other wrapping cloths in the Museo Nacional of Lima, are reported to be between 7 and 8 feet wide by Lila O'Neale in "Wide Loom Textiles of the Early Nazca Period" in R. Lowie, ed. *Essays in Anthropology in Honor of A.L. Kroeber* Chicago, 1936.

²¹ Mummy B: outer bag 20'8" long x 50" wide (two strips). Mummy C outer bag: 19' long x 45" wide. (author's measurements taken in June, 1996 at AMNH, thanks to Vuka Roussakis).

²² J. Vreeland "Ancient Andean Textiles: Clothes for the Dead" *Archaeology* 1977 vol.30 no.3. p.175.

²³ Somewhat contradictory excavation notations are found in the archives at Columbia University.

²⁴ There are also some colonial documents which refer to 'tents' built by the Inca armies. However, with our Great Cloth, there are no indications of any stretching, or hanging devices or cords which would have been needed for vertical suspension. . See J. Vreeland "Vertical Loom in the Andes." 1979, p.195.

²⁵ See H. Silverman "The Early Nasca Pilgrimage Center of Cahuachi and the Nazca Lines: Anthropological and Archaeological Perspectives" in A. Aveni, ed. *Nasca Lines* 1990. Pp. 207-244.

²⁵ Gary Urton "The Ritual Sweeping of the Nasca Lines" in A. Aveni, ed., *Nasca Lines* 1990 pp.173-206.