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Elena Phipps
University of California, Los Angeles, elena@ephipps.org

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Andean Textile Traditions: Material Knowledge and Culture, Part 1

Elena Phipps

Abstract
The development of rich and complex Andean textile traditions spanned millennia, in concert with the development of cultures that utilized textiles as a primary form of expression and communication. Understanding the importance of textiles in the Andean world, we can examine elements of their genesis and look at the trajectory from the earliest developments of fiber-made items to the extraordinarily complex and specific processes of textile making, such as warp-wrapping and discontinuous warp and weft weaving. These processes are examined in the context of the relationship between textiles and the sacred, highlighting the significance and agency of cloth in part through the creation of the unique methods of their construction, which constitute systems of knowledge underscored in the material and materiality of the media.

Keywords: textile traditions, agency of cloth, materiality, textile processes, weaving, textile structures, sacred textiles, warp-wrapping, discontinuous warp and weft

1. This publication represents a condensed and abbreviation version of the paper originally presented at the conference. Part II is forthcoming.

Introduction
In 2012 I was in Los Angeles during a special event: the installation of the artwork by Michael Heizer called Levitated Mass in the Los Angeles County Museum of Art. The finished work consists of a huge 340 ton rock suspended over a subterranean walkway. Its installation entailed the transportation of the megalith from its quarry, located approximately 100 miles outside of the city. Because of its size, this required a highly engineered rig which was 300 feet long and contained over 200 wheels custom designed to safely suspend and transport the precious rock. The journey took place over the course of 8 nights traversing a convoluted route through the streets of the city.

and proceeded through the nights like a sacred procession, cheered on by hundreds of people who came out at midnight to witness its passing. With a budget of over one million US dollars for this moving process, what I loved the most—apart from the medieval spectacle of it all—was the fact that with all of the high tech engineering and planning that took place, in order to move this rock, the first steps in its preparation—according to Michael Govan, Director of LACMA—was to 'swaddle it in “high-thread-count Egyptian cotton sheets.”' That the sheets were “Egyptian” cotton in modern day terms means, in fact, that it was long-stapled Pima cotton, *Gossypium barbadense*, whose origin, of course, is Peru. A nice detail as an entrée into our discussion of materiality and Andean textile traditions.

But in the broader picture—whether for works of art or the ancestors of a civilization—the wrapping of precious objects—including rocks—in textiles is an ancient global practice, and one that is particularly active in the Andes. An

Fig. 1a Michael Heizer *Levitated Mass*, 2012. LACMA. Photo: www.LACMA.org

Fig. 1b Transporting the rock to the museum. Photo: Monica Almeida, New York Times, March 10, 2012

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3. “It was Michael Heizer who wanted to protect it from scratches, he was treating it very carefully. So he proposed that it be shrinkwrapped. It’s swaddled in high-thread-count Egyptian cotton sheets, placed between the wood blocks and the rock so as it’s moved it’s cushioned even further. ”Michael Govan, Director of LACMA. [http://latimesblogs.latimes.com/culturemonster/2012/02/lacmas-michael-govan-talks-about-his-new-rock-star.html](http://latimesblogs.latimes.com/culturemonster/2012/02/lacmas-michael-govan-talks-about-his-new-rock-star.html). The use of Egyptian cotton sheets was confirmed by the Vice Director of LACMA (Nancy Thomas, personal communication, email, 4/2016) though questioned by the artist’s assistant, per email communication 6/2016.
In the Andes even today, we can see the wrapping of stones, for example in the annual pilgrimage to El Señor de Quyllur-rit’i—the Lord of Pure Snow—where men dressed as ‘bears’ ukuku ascend to the glacier to collect pieces of ice and in the process reach a special rock that is covered with cloth. The wrapping or dressing of stones was a practice documented since early Colonial times, by Spanish chroniclers as well as indigenous reports on Inca ritual activities where certain stones or rocky outcroppings in the landscape—wak’as—had special meaning. Cristóbal de Albornoz (ca 1530-1583) an obsessed cleric, determined to “extirpate idolatry” in the 16th century systematically listed and described the wak’as in the Cuzco area, section by section, following along the pathways of the ceque lines. “Usco-vilca is the Wak’a of the Ananchancas Indians. It is a stone dressed in the manner of an Indian.”

The relations between people and wak’as constituted a complex set of interactions and the social agency of special places and things was expressed in the material world through offerings of food, coca leaves, and chicha (alcohol). Guaman Poma de Ayala—noted for his 400 page illustrated letter to the Spanish King written in the end of the 16th century—the original manuscript resides in the Royal Library, in Copenhagen—tells us that Mango Capac the first mythical Inca king began the practice of the worship of the wak’as (sometimes spelled huacas) or sacred things along with that of the sun and moon. Other objects were also considered wak’as or sacred or containing power, and were
described by Polo de Ondegardo in the 16th century (d. 1575),
such as certain special corn cobs identified as zaramama
that were wrapped in cloth mantles or dressed in women’s
garments. Dressing wak’as as well as other important ob-
jects, animals, and sites was part of the ontology of the An-
dean world and signals their ‘personhood.’\footnote{11} Weaving clothing for wak’as was the job of groups of specialized artisans
who prepared cumbi—the fine cloth of the Inca—for ceremo-
nial sacrifice. One such group of specialists, the pilco llama
camayo were royal weavers who were dedicated to making
textiles for llamas, and notably the red blankets\footnote{12} for the specially bred white napa llamas of the Inca king.\footnote{13}

The Inca created many special textiles—sometimes wo-
ven to the size and shape for the wrapping of their intended
ritual object—small figurines made of gold, silver and spon-
dylus shell that are wrapped—or dressed—in textiles, which
contributes to their value as offerings to Yllapa, god of light-
ening, in the high altitude sacrificial burials\footnote{14}. [Fig. 5] The
figurines—were specially dressed in garments according to
established affiliations, recognizable through their specific
sets of colors. The miniature garments were modeled after
the aesthetic and technical features of those worn by the
Coyas and special Inca cloistered women of the Acclas—as
seen in comparison with the full sized—and we might say

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\footnotetext{10}{And other objects were also considered huacas or sacred or containing power, and were described by Polo Ondegardo in the 16th century (d. 1575), such as certain special corn cobs identified as zaramama that were wrapped in cloth mantles. Polo de Ondegardo described selection of well-grown corn cob, ceremoniously placed in small container wrapped with a lliclla. ZARAMAMA. Another kind of Zaramama was made of cornstalks, dressed in skirt, with “lillja and topo” [lliclla and tupu—the Andean dress pin]. Sabine MacCormack Religion of the Inca. Princeton: Princeton University Press 1991. Pp. 179-180.}

\footnotetext{11}{See Mannheim and Salas, 2015 above.}

\footnotetext{12}{Murua (ca. 1611) 1987 p. 385}

\footnotetext{13}{Napa llama: see Flores Ochoa, J. 1978. Taxonomies Animales. Annales 5-6, pp 1006-16. Also S. MacCormack Religion in the Andes. P. 171-175. On red blankets for llamas see Tom Cummins Cat.8 p 137 in E. Phipps and J Hecht Colonial Andes,2004.}


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Fig. 3. Ikuku (bear-man) near summit of Qullor Riti, (Peru) near large stone covered with textiles. Photo: courtesy Mieszko Stanislawski (www.MieszkoStanislawski.com)
oversized dresses.15 [Fig. 6.] Wrapped in their garments, the bundles themselves were in addition, wrapped in even more and more outer layers—as can be seen in the bundled and wrapped bodies of Capucocha females, such as one from the burials at Ancongata, in Salta that was buried with an outer layer that surprisingly, included a male tunic laid on top of the bundle prior to burial.16

Textiles, in the form of clothing of course was part of wrapping the body of individuals. This was done in various moments of life and death. At the time of burial, wrapping took place: in some cases—presumably for special individuals—at times, they were disinterred, removed from the burial to be re-wrapped with further offerings—a practice we know took place as early as the time of the Paracas burials, at least as early as around 150 BCE.17

Sometimes however, cloth in and of itself was subjected to burial—as seen in the so-called Great Cloth Burial at Cahuachi, in the Nasca Valley where sometime during around 200 A.D., a single enormous textile, estimated to be at least 18' wide as one loom width x 200 feet long, (50-60 m) was folded layer upon layer upon itself and buried in a trench [30 meters long x 1.2 deep x 1.4 m. wide].18 Apart from two small ceramic shards, no other artifacts were found in the clean fill used for this cloth burial. As William Duncan Strong, the archaeologist who uncovered this in the 1950s noted in his journal: “no tomb, no necropolis. Damn!”19 [Fig. 7]
While the enigmatic Cahuachi cloth may be interpreted as having had meaning in its former ‘life’ prior to burial under the ground—sometimes the agency of cloth functions as a mediator, on top of the ground, for example, as a ‘mesa’ establishing the sacred surface or precinct or location of ritual actions.20 [Fig. 8]

And sometimes the cloth of ritual action is itself wrapped in cloth. As we see in the Aymara q’epi bundle preserved and honored by a local community.21 The bundle holds and protects the garments—tunics and mantles—worn once a year during a religious ceremony. Kept by the local town officials, the bundle itself may be given offerings. [Fig. 9] The ceremonial use of these garments has roots at least as far back as five or more centuries, as we can see from the ceramic figure found in Parati near Lake Titicaca that date back to the 10th century A.D.22

All of these examples demonstrate one aspect of the function of textiles in the Andean world—especially in active relation to ritual and ceremony. In some cases, the textiles were produced especially for that act—such as the miniature garments woven to size and shape for the silver or gold capacocha figurines. In other cases, textiles produced for other


functions serve in new contexts, because of their physical qualities—such as their potential softness and flexibility to be folded or tied, their color, design and aesthetic components, and their association with human activities.

This primary relationship between the textile and the other object—whether stone wak’a or ritual illas (stone animal figurines) or the human body—is one of protection and interface—between qualities of hard and soft, and concepts of earth and air, exposure and enclosure. The textile mediates these elements and has agency, so much so that Albornoz instructed priests who were in the process of removing “idolatry” from the Andes to take and then burn “all precious textiles and specifically the ‘bestidos de cumbe’ because if the textiles had touched the wak’as, then the people could re-create their wak’as elsewhere.”23 In other words, the textiles themselves carried with them the sacrality of the specific wak’a.

In examining textiles in this way, a question develops—where does this agency of textiles come from? Does it come from the specifics of how they are made? From the materials, the formulation of the yarns and weave structures, in the articulation of the design, in their use and context or in their materiality— that is, the cultural associations that interconnect technical traditions with conceptual constructs? I would propose that it is in all of the above, and would like to explore the issue by examining several examples where I think that we can get a glimpse of this interface between materials and materiality, where the process of making textiles, in and of themselves conveys meaning. This is something perhaps related to what Penny Dransart refers to as “productive knowledge.”24 To examine this issue, the following presents four examples—they represent a range of time periods from some of the earliest manifestations to the Colonial era—and are points on a continuum, and not by any means the whole story.

**Example 1: Adding color to textiles: Huaca Prieta warp wrapping**

The harnessing of materials—the fibers and colorants—used to make textiles takes place in the early periods of Andean history. These include the use of plant fibers to create the matting and cordage such as that found in the Guitarrero Cave dating to around 8000 B.C.25, and domestication of cotton that takes place at around 3500 B.C in the

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23. “... in his instructions for destroying wak’as, Albornoz (ibid.:196) advises would-be extirpators to seize first and then burn all precious textiles (specifically, bestidos de cumbe), for if any of the textiles touched wak’as (things he terms relics), devotees could readily re-create their wak’as elsewhere” Carolyn Dean, Men Who Would Be Rocks: The Inka Wank’a. In, Tamara L. Bray Ed. The Archaeology of Wak’as: Explorations of the Sacred in the Pre-Columbian Andes. University Press of Colorado. (2015) p. 224. Stable URL: [http://www.jstor.org/stable/j.ctt130hkws.11](http://www.jstor.org/stable/j.ctt130hkws.11)


25. Adovasio. Complex IIa (8600-8000 B.C.) Guitarrero Cave – cordage, plant fiber and cotton?
North Coast. The earliest usage of animal hair is more difficult for us to trace in textile production due to the adverse preservation conditions of the highland regions, presumably its origin—though there is evidence of the use of camelid fibers in the far south coast in association with Chinchorro mummies by at least approx 3000 B.C. and extensive use by Quiani peoples by 1000 B.C. Color and the discoveries and experimentation with the preparation of color for fibers is another revolutionary occurrence.

Red pigments appear to be among the earliest colorant for cotton fibers and were also primary colorants associated with ritual spaces. We know of iron oxide mines in Chile in use from around 7000-4000 B.C. during the Archaic period (9000-6000 BP) and red pigment grinding stones were discovered in El Paraíso in the Chillon Valley, Peru, active in 2000 B.C.E. (See Fig. 2.) Mineral pigments, such as iron oxides and ochres as well as red lead and cinnabar, were important source of color for early cotton textiles—though few extant examples have been tested and identified.

Cotton is a fiber that does not dye easily with organic colorants, unlike camelid hair which takes more easily to colors from the many plant and animal sources. So it is understandable that early experimentation with color begins with the use of earth pigments—long associated with ceremonial activity—worked into the cotton fibers along with some organic tannins. And with the addition of color, new ways of expression in textiles develops.

William Conklin almost forty years ago wrote an article entitled “The Revolutionary Weaving Inventions of the Early Horizon.” In it he explores some of the earliest textile constructions, from sites such as La Galgada and Huaca Prieta, noting, as had others before him, the development of a change of textile constructions from looping and twining to weaving, and the invention of several techniques in the Initial Period and Early Horizon (that is from around 2500 B.C.E through approx 200 B.C.E) that would become key parts of the evolution of Andean textile traditions. These include the establishment of standardized loom widths, and the use of heddles for weaving, as well as the use of discontinuous wefts to create tapestry, originally as inserted sections within a larger plainweave cloth [Fig. 10] and the development of doublecloth and its subsequent triplecloth variations, among others.

From the early examples of textiles with designs, we can see that each one coincides with the powerful iconic and

symbolic imagery of the period including raptors, caymen, double-headed birds, nesting imagery of snakes within birds, etc. Wanting to construct images of significant power within the woven cloth, weavers needed to creatively work to achieve methods appropriate for their materials. The example from the Cupisnique level of Huaca Prieta excavated by Junius Bird in the 1950s provides us with a glimpse into this creative process at a very early stage. The coloring of cotton with mineral pigments enabled the early weavers to construct their designs within the structure of the cloth. [Fig. 11a+b]

Here we see this achieved through the coloring of masses of fibers (not spun into yarns) that were then wrapped around the warp yarns, during the weaving process. This was an efficient use of precious colorants, though extremely time consuming for the weaver. At its core, this technique is a creative solution to the impulse to create fluid designs, rendered within the grid of the woven fabric. In this case of the fragment from Huaca Prieta, because of its fragmentary nature, it is difficult to see the design concept—but we can see the surface effect—where the fiber is wrapped not only at the visible level of the thickly worked areas, but in fact over much of the entire surface.

In another example from the same site, again, while the design of this fragment cannot really be read, we can see its design approach and style—through the formation of blocks of color standing in relief contrasted to recessed narrow furrows outlining the design that do not have the added colored fiber and rather use the basic plain weave structure. [Fig. 12] This is reminiscent of the aesthetic of the stone carvings that we see in the temples of the period, notably at Chavin de Huantar.35 This association between the stone carving and textile design construction may be more discernible in the tapestry woven example belonging to the Museo Amano, from the Casma Valley—where clear differentiation between areas of design in relief, though constructed in a different technique, but in a similar style. 36

With access to colors, and possibly access to animal hair fibers, a new color palette can be achieved.

The mobility of textiles enables the spread of technical inspirations and we see a few examples of the wrapped fiber method preserved in the south coast—thousands of kilometers away from the center of the religious cult—the site of Chavin, in the north. These examples from the period perhaps had likely been transported from the north, but their aesthetic process brings not only the intellectual concepts and potential deification of composite religious icons in the style of the north, but may have also served as an inspirational model for local artisans.

36. Kajitani, Nobuko. Textiles of the Andes. Senshoku No Bi (Textile Art) 20 (Fall): 9-96. 1982.(especially fig. 5)
The technique of warp-wrapping that had emerged in the early Initial period originating from the north resurfaces in the South Coast almost a thousand years later. It is present in a few extraordinary textiles, such as the well known Early Nasca textile in the Brooklyn Museum, (referred to commonly as “The Paracas Textiles”) with elaborately worked three-dimensional cross-looped borders, where the field of the textile is constructed in the warp-wrapping technique.37 [Fig. 13] That it comes from a region whose weavers already had an extraordinary grasp on textile techniques— from cross-looping, double and triplecloth, complex gauze weave, tapestry, embroidery— yet chose this one for a few textiles of rare importance, is significant. In addition the abundance of available camelid hair and the wide range of dyes for colors of all types that appears to have been part of the palette of elite networks of artisans makes one wonder why this archaic technique was used for these particular textiles? For example, we may consider that the impulse for the early development in the Chavin-inspired cotton textiles came in part from the absence of colorants, and perhaps the precious nature of the colorants themselves—associated with temple structures and ritual—that saturated the fibers for constructing these sacred images. But in these later examples—of which there are only a few—clearly, access to color is not an issue. Rather how color is incorporated into the making of certain special designs is the predominant question.

Example 2: Nasca Discontinuous Warp and Weft

The extraordinary textile from the Museum of Fine Arts Boston [Fig. 14] is woven with discontinuous warps and wefts—where each color area is created with warps and wefts of the same color. The innovation of using this technique enables the creation of a lightweight, potentially sheer textile, that is identical front and back with areas of pure color—equal in warp and weft. But this comes at a price to the weaver: the time and skill required to set up the color changes in the warps, and the weaving of defined areas of discrete color—generally without the aid of heddles, and likely at least begun and completed with needles rather than shuttles of any kind. These all mean that the weaver needs to engage to the fullest and be devoted in the process of the design and textile creation.

It is difficult to trace the development of the use of this technique—associated perhaps with the late phases of Paracas and early phases of Nasca culture. Certainly it is here that we see the extensive use of the method, and, interestingly—in its most complex form, at a very early moment of technological development. Ann Rowe, in her seminal article on the subject in 1978, notes that some of the earliest pieces may be from Ocucaje—which seems to have been a cauldron of creative development in the early period.38

Discontinuous warp and weft textiles created with areas of pure color——may have developed out of the experience of doublecloth: where two sets of warps and two sets of wefts interlace.

This solves the problem of pure color areas, but there, the resulting textile has weight and depth and limited in color palette. And the designs are strictly confined to the woven grid.39

Unlike some of the exceptional Nasca examples with complex and curvilinear polychrome designs—such as the

37. Brooklyn Museum accession number 38.121. See https://www.brooklynmuseum.org/opencollection/objects/48296/Mantle_The_Paracas_Textile/
39. To see examples of various types of discontinuous warp and weft textiles see Phipps The Four-Selvaged Peruvian Cloth. Fowler Museum 2013.
Fig. 13. Rare ceremonial textile with 396 colored units of warp-wrapping and embroidered edging. Nasca Period ca. 100 B.C.-200 A.D. Fowler Museum, Los Angeles. X86.2925.

beautiful piece from the Musee de L’homme with its delicate curvilinear style. Or the extraordinary examples in the Boston Museum (see Fig. 14) and the Brooklyn Museum.

The technique itself was constructed in many formats—sheer and balanced plain weave, as well as warp-predominate, and warp-faced plain weave—wit or without patterning and with or without discontinuous wefts. The proliferation of this most unusual technique in such far-reaching variations is one of these almost unexplainable Andean phenomena. The creation of these textiles—apart from their conceptualization—begins with the warping process which was fundamental to the design creation.

How these textiles were constructed is only partially understood. Contemporary highland weavers persist in the weaving of warp-faced and warp-patterned examples, using what is generally referred to as a “six stake loom” so beautifully documented by John Cohen in his film from the 1970s. Color changes in the warp can take place at the central bar secured to the additional two stakes. A few archaeological examples have been preserved that retain multiple scaffolding elements required to maintain the warp tension for weaving more complex designs—either with cords or sticks. One rare unwoven warp with its pattern established using rigid canes is preserved in the Royal Museum, Brussels.

Unlike the majority of examples of discontinuous warp that use a rectilinear grid pattern—large or small, the rare—and early—examples that use curvilinear designs, and on a very small scale—as I have shown from Brooklyn and MFA, Boston as well as Musee de l’Homme is less understood: but required something more flexible for the artist to achieve their images.

I had the extraordinary opportunity more than 30 years ago to examine close up the Brooklyn Museum example under magnification, and was able to see remnants of a very

40. Former Musee de l’Homme accession number 68.7.7
fine fiber – not identified but likely a stiff, vegetal fiber—that appears to be forming a fine set of scaffolding elements—perhaps even a grid upon which the warps and wefts would have been introduced with needles. The development from a technical perspective is one thing--but the motivation and values that is implied, is another.

We cannot really understand WHY this system was developed, and WHY it was so important to create textiles with ‘pure’ color areas, that were reversible front and back, that were sometimes created to depict important mythological and/or iconic religious imagery and at other times more abstract elements using this technique. To help address this issue, however, I would like to examine an example of another piece from the far south coast, from hundreds of years later, which I think sheds some light onto the subject in a basic way. [Fig. 17] The piece is a striped “camisa” from Ilo, near Moquegua in the south coast of Peru and is the type of garment associated with this region (as far south as Arica in Northern Chile.)\(^45\) It was woven in a trapezoidal shape during likely around the Late Intermediate Period, ca. 12-14\(^{th}\) c. The creation of the trapezoidal shape is a very interesting subject, but has been

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discussed elsewhere.\textsuperscript{46} For the present discussion, the focus is on the two outer stripes and the color change that occurs at the shoulderline, the blue stripe that is on the front, becomes a red stripe at the back.\textsuperscript{47} It’s a little detail, but one, just like all other discontinuous warp textiles, requires additional planning in the set up of the warp. And my question is WHY? What is so important about red and blue—in this case—that a weaver will go through this effort to create this change of color?

Perhaps three or four hundred years later, in the highlands of Bolivia, which if one examines the cultures of the region that may in fact be somehow not too distantly related, we can see this same phenomena in the ceremonial tunics of the Aymara people [Fig. 18]. And while again, we have no explanation for this, somehow the association and transposition of these two colors—red and blue—were of sufficient significance that a whole weaving tradition is adapted in order to produce it. In this case, however, we know again, from Colonial documents, such as the early 16th century dictionaries, among others, that red and blue garments were part of the coming of age ceremony of Paucar Uraray, and the first hair cutting rituals. These “sucullu” garments as they were called, consisted of—for males, blue with some red, and for females, red, with some blue.\textsuperscript{48}

There is so much to examine in this relationship between cloth and garments associated with sacred activities in the Andes. We can see that their materials and colors form an integral part of their use and meaning. The agency of cloth generated in the context of their materiality warrants further study: this present paper can only begin to touch the surface of these issues.\textsuperscript{49}


\textsuperscript{49} The second part of the original presentation for this conference will be published in a forthcoming essay.