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Elena Phipps

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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

Tradiciones Textiles Andinas: Conocimiento Material y Cultura, Parte 1

Resumen

El desarrollo de las ricas y complejas tradiciones textiles andinas sucedió durante milenios, paralelo al desarrollo de las culturas que utilizaban los textiles como una forma principal de expresión y de comunicación. Al entender la importancia de los textiles en el mundo andino, se puede examinar elementos de su génesis y ver la trayectoria desde los primeros desarrollos de objetos creados con fibra a los procesos extraordinariamente complejos y específicos de creación textil, tales como la envoltura de urdimbres y el tejido de tramas y urdimbres discontinuos. Estos procesos son examinados en el contexto de la relación entre los textiles y el sagrado, iluminando el significado y la agencia de las telas en parte mediante la creación de los métodos únicos de su construcción, los que constituyen sistemas de conocimiento subrayado en el material y la materialidad del medio.

Palabras clave: Tradiciones textiles; agencia de tela, materialidad, procesos de producción textil, tejer, estructura textil, tejidos sagrados, envoltura de urdimbres, trama y urdimbres discontinuos.

Introduction¹

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.² [Fig. 1a] 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. [Fig. 1b]

The journey took place over the course of 8 nights traversing a convoluted route through the streets of the city

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

2. *Levitated Mass*. [Michael Heizer \(United States, California, Berkeley, born 1944\)](#). 2012. Sculpture. Diorite granite and concrete. 35 × 456 × 21 2/3 ft. (10.67 × 138.98 × 6.6 m) Weight: 340 Tons. Transportation made possible by Hanjin Shipping Holdings Co., Ltd. (M.2011.35) See LACMA website for further. <http://collections.lacma.org/node/424258>.

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.”³ 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

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/2012/03/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.

Fig. 2. Stone, (meteorite?) with red pigment, found wrapped in cotton cloth. El Paraiso (occupied ca. 2000 B.C.). Centro de Investigaciones de Zonas Áridas laboratory in Lima. Universidad Nacional Agraria. Photo: courtesy Jeffrey Quilter.

early example of this was the discovery of an oddly shaped rock—considered potentially to be a meteorite-- from the ancient site of El Paraiso, ca 2000 B.C.. The rock, found in

a wall during the excavation by F. Engel in the 1950s, was painted with red pigment and covered in cotton cloth. Gourd bowls with offerings of food were found next to the wrapped stone.⁴ [Fig. 2.]

In the Andes even today, we can see the wrapping of stones, for example in the annual pilgrimage to El Señor de Quyllu-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.⁵ [Fig. 3] 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.⁶ 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. “Uscovilca is the *Wak'a* of the Ananchancas Indians. It is a stone dressed in the manner of an Indian.”⁷ [Fig. 4.]

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).⁸ 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.⁹ Other objects were also considered *wak'as* or sacred or containing power, and were

4. Email communication Jeffrey Quilter to Elena Phipps May 17, 2016. “The photograph was taken in 1976 by me at the Centro de Investigaciones de Zonas Áridas laboratory in Lima. It is part of the Universidad Nacional Agraria. Note that the photo of the stone is slightly out of focus. That was true of the original slide and I can't do much about it. I also don't have a scale in the photo but the stone was very heavy and is approximately 60 cm or so in height. You can clearly see the red pigment on it. I believe that Engel claimed that it was a meteorite but I don't know if anyone has ever confirmed that.”

5. Steele, Paul R. and Catherine Allen. *Handbook of Inca Mythology*. Santa Barbara: ABC-CLIO, 2004. (p. 242 re *ukuku* bear Qoyllur Rit'i). Also see Bruce Mannheim and Guillermo Salas Carreño. *Wak'as: Entifications of the Andean Sacred* In Tamara L. Bray, ed. *The Archaeology of Wak'as: Explorations of the Sacred in the Pre-Columbian Andes*. University Press of Colorado. (2015) Stable URL: <http://www.jstor.org/stable/j.ctt13ohkws.7>

6. Bernabe Cobo's list of *huacas* in Bernabe Cobo [1653] *Inca Religion and Customs* Austin, University of Texas Press, 1990, (book 13 chapters 13-16) pp 51-84. See also Tamara L. Bray, ed. *The Archaeology of Wak'as: Explorations of the Sacred in the Pre-Columbian Andes*. University Press of Colorado. (2015).

7. Pierre Duviols. Un inédit de Cristobal de Albornoz: La Instrucción para descubrir todas las guacas del Piru y sus camayos y haziendas. *Journal de la Societe de Americanistes* Vol 51 t.1. 1967. Pp 7-37 [Stone dressed like an Indian. p.28.]

8. Mannheim and Salas Carreño. *Wak'as* (2015), above.

9. Guaman Poma de Ayala GKS 2232 4^o: Guaman Poma, Nueva corónica y buen gobierno (1615) “Y este Ynga ydeficó Curi Cancha, templo del sol. Comensó a adorar el sol y luna y dixo que era su padre. Y tenía suxeto todo el Cuzco cin lo de fuera y no tubo guerra ni batalla, cino ganó con engaño y encantamiento, ydúlatras. Con suertes del demonio comensó a mochar [adorar] uacas ydulos.” Folio 87. Royal Library, Denmark. <http://www.kb.dk/permalink/2006/poma/86/en/text/?open=id2970453>

Fig. 3. Ikuku (bear-man) near summit of Qullor Riti, (Peru) near large stone covered with textiles. Photo: courtesy Mieszko Stanislawski (www.MieszkoStanislawski.com)

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 or dressed in women's garments.¹⁰ Dressing *wak'as* as well as other important objects, animals, and sites was part of the ontology of the Andean world and signals their 'personhood'.¹¹ Weaving clothing for *wak'as* was the job of groups of specialized artisans who prepared *cumbi*—the fine cloth of the Inca—for ceremonial 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 blankets¹² for the specially bred white *napa* llamas of the Inca king.¹³

The Inca created many special textiles—sometimes woven to the size and shape for the wrapping of their intended ritual object—small figurines made of gold, silver and spondylus shell that are wrapped—or dressed—in textiles, which contributes to their value as offerings to Yllapa, god of lightning, in the high altitude sacrificial burials¹⁴. [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

10. And other objects were also considered *huacas* or sacred or containing power, and were described by Polo Ondegardo in the 16th century (died 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.

11. See Mannheim and Salas, 2015 above.

12. Murua (ca. 1611) 1987 p. 385

13. Napa llama: see Flores Ochoa, J. 1978. Taxonomías 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*.

14. See J. Reinhard and Cerrutti., *Investigaciones Arqueológicas en el Volcán Llullaillaco*. Ediciones Universidad Católica de Salta, Argentina, 2000; J. Reinhard and C. Cerrutti *Inca Rituals And Sacred Mountains A Study of the World's Highest Archaeological Sites*. Los Angeles: UCLA Cotsen Institute for Archaeology Press, 2010. Also Phipps in *Colonial Andes* Cat numbers 1 and 2, pp. 128-130.

Fig. 4. Dressed wak'a - a sacred stone. Colquench, Bolivia, 1988. Photo Courtesy Johan Reinhard.

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 Capacocha 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

Fig. 5. Miniature Dressed Inka female figurine. Early 16th c. Inka period. Museo de Tucume. Peru Photo: D. Giannoni.

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]

15. See Ann Rowe, 1997. Inca Weaving and Costume. *Textile Museum Journal* 14 (1995-96) pp. 5-54. Also Phipps *Colonial Andes* Cat.3 and 4. Pp 130-134.

16. See Reinhard and Cerrutti, 2000 pg. 96-99

17. See for example, Anne Paul "Radiocarbon dates for Paracas" in Anne Paul, ed. *Paracas Art and Architecture: object and context of South Coastal Peru*. Iowa City: University of Iowa Press, 2019. Pp. 1-34.

18. Phipps, Elena, "The Great Cloth Burial at Cahuachi, Nasca Valley, Peru" (1996). *Textile Society of America Symposium Proceedings*. Paper 871. <http://digitalcommons.unl.edu/tsaconf/871>

19. Duncan Strong's journal is part of the Cahuachi collection held in the Department of Anthropology, Columbia University, New York.

Fig. 6. Inka Coya Dress. Peru ca. 1530. Camelid hair and cotton. 168c 240 cm. Museo Nacional de Colombia. Inv. No. o85282. Photo ©Museo Nacional de Colombia. Juan Carnilo Segura

Fig. 7. Photo. Excavation of the “great cloth burial”, Cahuachi, Nasca Valley, Peru. Sept 1, 1952. William Duncan Strong Archives, Columbia Univ. Anthropology Dept. New York.

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

20. Zorn, Elayne. Textiles in Herders’ Ritual Bundles of Macusani, Peru. In Ann Rowe ed. *J. Bird Conference on Andean Textiles* 1986 pp. 289-307; Tschopik, Harry. The Aymara of Chuchuito. VOL 1. Magic. Vol 44 part 2, *Anthropological Papers of the American Museum of Natural History*, 1951. p. 95 description of ritual mesa.

21. L. Edleson and A. Tracht *Aymara Weavings: Ceremonial Textiles of Colonial and Nineteenth Century Bolivia*. Washington D.C.: Smithsonian Institution Press, 1983. See also Christina Bubba. Memoria ritual: los rituales a los vestidos de María Titiqhawa, Juana Palla y otros fundadores de los ayllu de Coroma, in Thérés Bouysse-Cassagne, ed. *Saberes y memoria en los Andes in memoriam Thierry Saignes*. Paris: Institute des Hautes Études de l’Amérique Latine, 1997 pp. 377- 400.

22. Antti Korpisaari, Jédu A. Sagárnaga Meneses and Riikka Väisänen *Archaeological Excavations on the Island of Pariti, Bolivia: New Light on the Tiwanaku Period in the Lake Titicaca Region*. Barnardville: Boundary End Archaeology Research Center. 2010.

Fig. 8. *Señal q'epi* to mark male and female alpacas. *Misa 'unkhuña* atop folded costal. Camelid *unkhuña* with corn and coca. All paraphernalia sits on top of *q'epiña*. After E. Zorn. *Textiles in Herders Ritual Bundles of Macusani, Peru*, 1986. In Ann Rowe ed. *J. Bird Conference on Andean Textiles* 1986 pp. 289-307.

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

Fig. 9. Ceremonial *q'epi* bundle Coroma. 1978. The wrapping cloth contained folded ritual tunics and mantles. Photo: after Adelson, L. and A. Tracht, *Aymara Weavings* Washington D.C., Smithsonian Institution, 1986.

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 least by around 3500 B.C in the

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>

24. See P. Dransart Thoughts on productive knowledge in Andean weaving with discontinuous warp and weft. In Denise Y. Arnold with Penelope Dransart (eds) *Textiles, technical practice and power in the Andes*. London: Archetype Press, 2014. Pp. 216-232.

25. Adovasio. Complex IIa (8600-8000 B.C.) Guitarrero Cave – cordage, plant fiber and cotton?

North Coast.²⁶ 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.²⁷ and extensive use by Quiani peoples by 1000 B.C.²⁸ 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)²⁹ and red pigment grinding stones were discovered in El Paraiso in the Chillón Valley, Peru, active in 2000 B.C.E. (See Fig. 2.)³⁰ 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.³¹

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.³² 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.”³³ 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

Fig. 10. AMNH. Plain weave cloth with tapestry section. Supe. Peru. Ca. 1800 B.C.(?) American Museum of Natural History, NY, 41.2/5517. Photo: author, courtesy AMNH.

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.³⁴ 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

26. Cotton : see Michael Moseley Maritime Foundations of Andean Preceramic; Tom D. Dillehay, Jack Rossen, Thomas C. Andres, David E. Williams Preceramic Adoption of Peanut, Squash, and Cotton in Northern Peru *Science* 316, (2007) pp.1890-1893.

27. Oakland, Amy, “The String or Grass Skirt; an Ancient Garment in the Southern Andes” (2008). Textile Society of America Symposium Proceedings. Paper 120. <http://digitalcommons.unl.edu/tsaconf/120> ; also Cassman, Vicki; Odegaard, Nancy; and Arriaza, Bernardo, “Chinchorro Twined Shrouds” (2008). Textile Society of America Symposium Proceedings. Paper 86. <http://digitalcommons.unl.edu/tsaconf/86>

28. Arriazi Bernardo, Standen, Vivien G., Vicki Cassman, and Calogero Santoro. Chapter 3. Chinchorro Cultures: pioneers of the coast of the Atacama Desert. P. 48 in H. Silverman and Willaim Isbell *Handbook of South American Archaeology*. Springer 2008. (pp. 45-58).

29. Victoria Castro Prehispanic Cultures in the Atacama Desert: a Pacific Coast view. In Sanz, Nuria, Arriaza, Bernardo T., Standen, Vivien G. *The Chinchorro culture: a comparative perspective, the archaeology of the earliest human mummification*. UNESCO pub 2015. P.11-34.

30. Stanish, Charles The Origin of State Societies in South America *Annual Review of Anthropology*, Vol. 30 (2001), pp. 41-64 (p. 46). Stable URL: <http://www.jstor.org/stable/3069208> Quilter, J. 1985. Architecture and Chronology at El Paraíso, Peru. *Journal of Field Archaeology* 12:279-297. And according to Engel, who excavated the site “Inside the structure was a large globular stone covered with red pigment and wrapped in cotton cloth.” Next to the wrapped stone was an offering of food in a gourd bowl.

31. Phipps, E. *Cochineal Red: the Art History of a Color*. New York: Metropolitan Museum of Art 2010.

32. See E. Phipps Textile Colors and Colorants in the Andes. In Gerhard Wolf, Joseph Connors and Louis Waldman, eds. *Colors between Two Worlds*. Villa I Tatti, Florence. Harvard University Press, Cambridge. Pp. 256-280. 2012 .

33. William Conklin. The Revolutionary Weaving Inventions Of The Early Horizon, *Nawpa Pacha: Journal of Andean Archaeology*. No. 16 (1978), pp. 1-12

34. See also S. J. Doyon-Bernard From Twining to Triple Cloth: Experimentation and Innovation in Ancient Peruvian Weaving(ca. 5000-400 B.C.) *American Antiquity*, Vol. 55, No. 1 (Jan., 1990), pp. 68-87 Stable URL: <http://www.jstor.org/stable/281493>

Fig. 11a. Plainweave textile with warp wrapping. Huaca Prieta, ca 2500-1800 B.C. American Museum of Natural History, NY. 41.2/3493. Photo: author, courtesy AMNH.

Fig. 11b. Detail.

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.

35. For example, see Richard Burger *Chavin and the Origins of Andean Civilization*. London: Thames and Hudson, 1992.

36. Kajitani, Nobuko. Textiles of the Andes. *Senshoku No Bi (Textile Art)* 20 (Fall): 9-96. 1982. (especially fig. 5)

Fig. 12. Detail: Plain weave with warp wrapped red pigment-colored fibers. Huaca Prieta ca. 1800 B.C. American Museum of Natural History, New York. 41.2/3570a,b. Photo: author, courtesy AMNH.

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/

38. Rowe, Ann. Interlocking Warp and Weft in the Nasca 2 Style. *Textile Museum Journal*, 1973, Vol III (3) Pp 67-78.

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.

Fig. 14 Detail 1: Fragments of a Hanging. Camelid hair plain weave, discontinuous warp and weft. Peru. Paracas-Nasca transition. Early Intermediate Period. About A.D. 200. Museum of Fine Arts, Boston. Edwin E. Jack Fund 67.313 a-d. Photograph ©2017 Museum of Fine Arts, Boston

Fig.15. John Cohen photograph: setting up a discontinuous warp in Q'ero, Peru, 1970s. Courtesy John Cohen.

beautiful piece from the Musée de L'homme with its delicate curvilinear style.⁴⁰ 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—with or without patterning and with or without discontinuous wefts. The proliferation of this most unusual technique in such

Fig. 16. Detail (2) MFA Boston (see Fig. 14, above)

far-reaching variations is one of these almost unexplainable Andean phenomena.⁴¹ 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.⁴² Color changes in the warp can take place at the central bar secured to the additional two stakes. [Fig. 15] 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.⁴³ One rare unwoven warp with its pattern established using rigid canes is preserved in the Royal Museum, Brussels.⁴⁴

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 Musée 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 Musée de l'Homme accession number 68.7.7

41. In 1983, when I wrote my Master's thesis on the subject I tried to examine and identify the many variations of the technique—looking at the range of examples in time and space. Phipps, E Discontinuous Warp in Andean Textiles. Columbia University, MA thesis. (unpublished.) 1983.

42. John Cohen book (with cd's of the film). *Past Present Peru*. Steidl, 2013.

43. See for example, Strelow, Renate. *Gewebe mit Unterbrochenen Ketten aus dem Vorspanischen Peru*. (Pre-Hispanic Textiles with Discontinuous Warp). Berlin: Staatliche Museen-Preussischer Kulturbesitz, 1996.

44. See E. Phipps. MA Thesis, *Discontinuous Warp and Weft in Peruvian Weaving*. Columbia University 1982.

Fig. 17a. Trapezoidal shirt. Camelid hair, warp-faced plain weave with discontinuous warps at shoulder stripe. 12-14th c? Centro Malqui, Ilo, Peru. Photo: Yutaka Yoshi.

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. 12-14th c. The creation of the trapezoidal shape is a very interesting subject, but has been

45. Minkes, Wynne, “Warp the Loom – Wrap the Dead Trapezoid shaped textiles from the Chiribaya culture, South Peru, AD 900-1375” (2008). Textile Society of America Symposium Proceedings. Paper 232. <http://digitalcommons.unl.edu/tsaconf/232>

Fig. 17b. Detail of shoulderline.

Fig. 18. Aymara ritual tunic. 19th c? (Private Collection)

discussed elsewhere.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.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 Uaray, 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.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.⁴⁹

46. E. Phipps 2009 Woven to Shape: a Pre-Columbian trapezoidal tunic from the South Central Andes in the Metropolitan Museum of Art.” In *Proceedings: Textiles as Cultural Expressions: 11th Biennial Symposium Textile Society of America* 2008. Electronic Omnipress. (7 un-numbered pages). <http://digitalcommons.unl.edu/tsaconf/126>

47. See also Dransart 2000 : 130–131, 144. Dransart, P. 2000 . ‘Vestirse en los períodos tardíos del centro-sur peruano.’ In *Actas de la I Jornada Internacional sobre Textiles Precolombinos*, Solanilla Demestre, V. (ed.): 127–153 . Barcelona : Grupd’ Estudis Precolombins. Dransart, P. and Wolfe, H. 2011. *Textiles from the Andes*. Fabric Folios. London: British Museum Press.

48. See E Phipps. *Sucullu* garments, *Colonial Andes* Cat number 89. pp 273–276. Also Phipps, pg.71, 73 Woven Documents: color, design and cultural origins of the textiles in the Getty Murúa (pp 65–84) in *Manuscript Cultures of Colonial Mexico and Peru: New Questions and Approaches* edited by Thomas B. F. Cummins, Emily Engel, Barbara Anderson, Juan Ossio. Los Angeles, Getty Publications. 2013. See fol 238 [240] GKS 2232: Guaman Poma, Nueva coronica y buen gobierno (1615) Det Kongelige Bibliotek, <http://www.kb.dk/permalink/2006/poma/240/en/text/?open=id2974245>

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