

## A Social Archaeology of Cloth *some preliminary remarks on prehistoric textiles of the Tarim Basin*

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Cloth and its tools of manufacture are fundamental components of material culture. The wearing of dress and the making of cloth are fundamental components of social practice. The archaeologies of material culture and of social practice reflect contrasting approaches to studying the past that have been divergent for the past several decades. This divergence, in fact, has deep intellectual roots. The material, empirical approach relies heavily on materials science and embraces the objectivity of scientific method for understanding the archaeological record; while the other, having questioned the reliability of objectivity in the complex domain of past human behaviour, strives towards understanding societies through a focus on the symbolic nature of material culture. Viewing regionally distinct patterns, style and form can place a material object within its culture historical context. Style also reflects social meanings, however, and can be seen as a part of a socially contextualized world in which material objects and actors interacted in the past, using, sharing and creating knowledge that was situated within society.

It is proposed here that these approaches are not only compatible, but are mutually necessary to gain a more complete understanding of the past. Claude Levi-Strauss believed that science alone is not sufficient for understanding human cultures; that it is necessary to also re-evaluate what he called *sense-knowledge* that had been abandoned by western philosophers at the time of Descartes (Levi-Strauss 1995:6-9). This rift between objective and subjective approaches is especially evident when examining cultures of the past. It is the aim of this project to use a more integrated approach, relying on both archaeological materials science as well as a social semiotics approach, attending to understanding social meaning in objects of material culture.

Between these two approaches to prehistoric archaeological research, the study of cloth holds a privileged place. The way we live and how we identify ourselves are most intimately connected with what we wear. *How* cloth is made and of *what* it is made each contribute to

the symbolic potency of the material; thus our ability to recognize these factors in degraded archaeological cloth fragments is of utmost value in interpreting their social meanings. It is precisely this area of interface that can be addressed by using a complementary approach, that of materials science as well as attention to semiotics.

We now recognize archaeological textiles as a significant part of the archaeological record. They are now recovered more thoroughly from indirect traces, fragments of thread or textile, even garments and tribute from well-preserved remains. Analytical technology is advancing and earlier archaeological textile data are being brought into synthesis (eg. Barber 1991; Drooker and Webster 2000). It is therefore possible to begin to address some of the social processes related to cloth technologies, manufacture, and use. This type of inquiry unites the two disparate approaches, that of materials science on the one hand and of social meanings on the other.

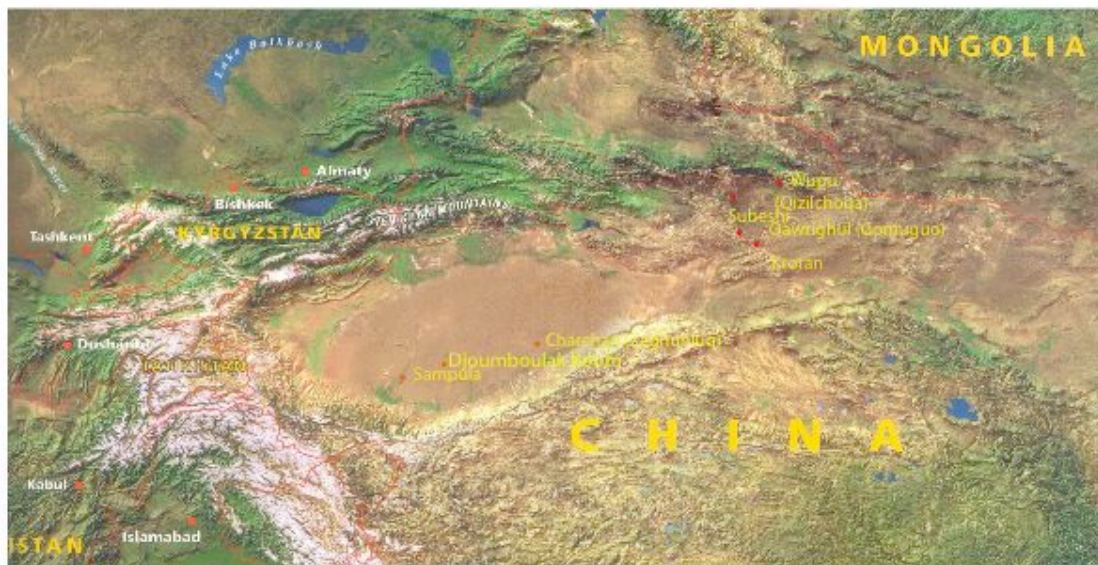
### **Project description**

Extraordinarily well-preserved organic remains from mortuary and settlement sites, including mummified bodies<sup>1</sup>, are scattered along the outer oasis-laden rim of the Tarim Basin in Xinjiang, ranging in date from ca. 2000 BC to the late first millennium AD. This archaeological phenomenon is parallel in some respects to the burials of coastal Peru and Chile, in particular regarding the wealth of archaeological textile material they hold. Textile finds from Chärchän, Hami, Keriya, Subashi and Sanpula have been published (see Barber 1999; Debaine-Francfort and Idriss 2000; Keller and Shorta 2001; Mallory and Mair 2002). More recent work in the Tarim Basin is yielding important new data which helps to build a sound chronological framework and more complete artifact typologies for the region (Chen and Hiebert 1995; Mei and Shell 2002). Refined models for cultural interaction, affinity, and horizon are thus emerging, based on the integration of new data from the bronze and iron ages of eastern Central Asia particularly southern Kazakhstan

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1. As in Egypt and Peru, natural environmental and edaphic conditions favor organic preservation and mummification. Effort was made to enhance natural dessication and preservation of the body after death in the Tarim Basin through various means, including cutting drainage channels into the tombs.

and the Ferghana region of eastern Uzbekistan, Gansu and Qinghai (An 1992; 1998; Li 2002; Mei & Shell 2002).



A preliminary technical investigation of some of the Tarim Basin textiles and their fibers was undertaken by myself in collaboration with Elizabeth Barber of Occidental College

(Good 1995, 1998; Barber 1998; 1999), under the auspices of the Uyghur Autonomous Regional Museum in Ürümqi, through the facilitation of Victor Mair of the University of Pennsylvania. Fiber and thread specimens and photographs were obtained while conducting research in Xinjiang<sup>2</sup>. My preliminary study of wool fibers from these sites indicates that there are at least two distinct fleece types, suggesting divergent breeds (Good 1995). Preliminary dye analysis from threads from Chärchän indicate (not surprisingly) the use of madder and *Indigofera*, as well as a luteolin yellow dye, possibly derived from weld (*Reseda luteola*) and a second, yet unidentified reddish yellow dye (Laursen and Zhang 2005).

## Discussion

I am currently involved in a project entitled ‘A Social Archaeology of Cloth’.<sup>3</sup> As part of this project I am examining textiles from Subashi, Chärchän (Zaghunluq), Hami (Qumul) and Sanpula. The overarching research question is:

*What is the extent to which can we study social meanings in prehistoric textile material?*

The preliminary examination of textile and fiber data from this expedition was the basis for developing a working hypothesis to be tested; namely that it is possible to investigate and interpret some degree of *social meaning* in mode of dress in prehistoric contexts, specifically addressing the context within which the textiles derived. In particular, I am evaluating some of the cloth and dress features in structural, formal and material detail, attending to the semiotic aspect of textiles as material objects. Archaeological textiles and garments more often than not find their way to museums through looting rather than formal archaeological excavation. The Tarim mummies, though often excavated in less than ideal conditions (in very difficult soils and with very little subsidy for curation or conservation) have a good degree of contextual information to make a contextual approach feasible.

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2. Thanks are due to V. Mair, D. Kamberi, D. Gencheng and the staff of the Museum of the Xinjiang Uighur Autonomous Region, Ürümqi.

3. This research is made possible through the generous support of the John Simon Guggenheim Memorial Foundation.

For the present forum I would like to share with you today some preliminary notes from two discrete problem areas for discussion. The first problem area is focused on a specific type of skirt. Preliminary background work investigates the history/prehistory of this particular type of garment and its possible social function. The second problem area I wish to speak about today is that of binding cords, found in several burials, made of red and blue wool.

### Skirt Study

This part of my investigation centers on construction, form and to some extent, colour of horizontally striped full skirts gathered at the waist. There are several examples, well-known, from Chārchān, Subashi and also from Sanpula. I will describe them briefly below.

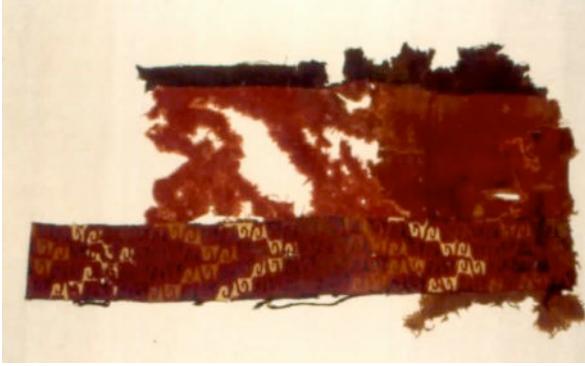
1. Chārchān skirts varied considerably, but each had common factors lending credence to the idea that there was an aesthetic or possibly symbolic component to their construction and form. Some skirts were made of strips of obliquely interlaced bands:



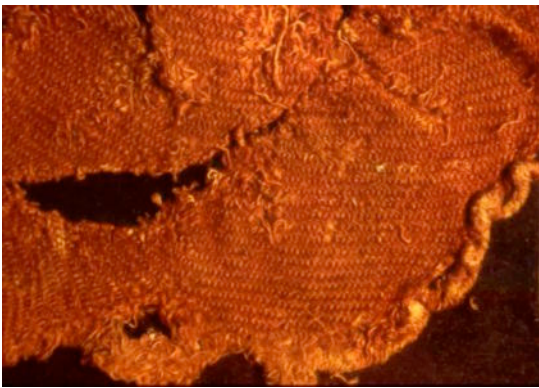
Others were in the form of plainweave with wide coloured horizontal stripes, presumably gathered at the waist and tied with a belt.<sup>4</sup> A third form of skirt is composed of narrow bands of tapestry joined to large sections of oblique interlacing.

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4. Such as the yellow and red striped one featured on the front of Barber's book 'The Mummies of Ürümchi. A Very similar skirt was found at Djoumboulak Koum, also of yellow and red.



One example of this type of skirt has a ‘ruffle’ of red oblique interlacing along the (presumably) lower edge.



Although there is considerable variation in the form and construction of these skirts, they share some interesting features. One common feature is the predominance of yellows and reds in the coloration, though blue is not absent in some of the skirts with more complex construction. Blue colour can’t be assumed to have special value, as it is not reserved for special or prominent placement within the garment, nor is it used with any obvious discrimination.

Another common feature is the horizontal line of sections, which some might argue is a natural result of the cloth being made up of coloured bands and then made into a skirt with the directionality of warp/weft being maintained on the body when worn. This is not correct, however, because 1. The tapestry/interlacing skirt does not follow that weaving directionality, and 2. The obliquely interlaced banded skirts were not loom-woven (indeed it would have been easier to shape a skirt to fit a woman by having the strips of interlacing

run vertically, with extra bands added from the bottom as a sort of gore;<sup>5</sup> and finally, 3. Warp stripes are just as easily made as weft stripes.

2. The Subashi skirt is difficult to study due to lack of access other than photographs of the skirt on the body; however we can say that the skirt was made up of horizontal stripes of predominantly reds and yellows<sup>6</sup> sewn together and gathered at the waist (probably a belted rectangular cloth). There are at least two panels, one front and one back, and the stripes are not matched on the side seams. The cloth is woven (plain weave or twill- hard to see in the photographs).

### 3. The Sanpula skirts

There are several important skirts and fragments of skirts from Sanpula; which date to several centuries later (ca. 200 BC-200 AD) but in close proximity to Zhagunluq. These skirts (as well as ones from Djoumboulak Koum,<sup>7</sup> along the inner course of the Keriya River) are predominantly red and yellow, often with lower decorative borders and with lower edge flounces. Some examples are very close in construction to those of Zaghunluq and Subashi, and others are more elaborately constructed, with stripes and gatherings and flounces, and a very high waistband, or 'rise'.

We see a similar type of skirt today in the little known nomadic Banjara Tribe of the deserts of Rajasthan in India. Although though the use of embellishment (embroidery and mirrors) make this genre distinctive (to the point of characterizing the Banjara Tribe), there are basic roots suggesting the possibility of a common origin, and by extension, a possible similar function (both as marker of tribal affinity and as a skirt for dancing).

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5. This technique was known to the makers of cloth in Chärchän, as documented by several contemporaneous shirts from the same site.

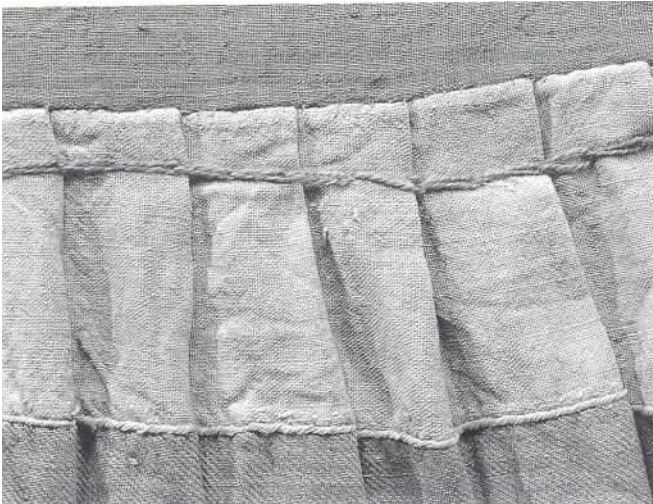
6. The colour order from bottom to top is: purple/brown, blue, red, yellow, repeated at least 6 times).

7. The dates for Djoumboulak Koum are unclear, though may predate Sanpula and post-date Subashi.





Skirt from Sanpula



Detail of Skirt from Sanpula





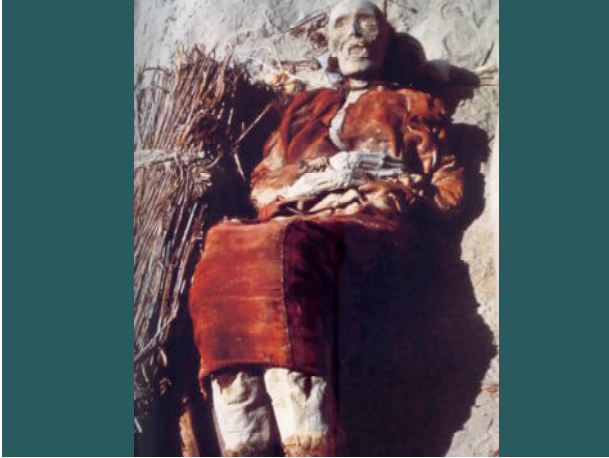
Banjara Tribe traditional dance (Meyva Troupe)

### Binding Cords

The second ‘problem’ area aims to investigate the extent to which we can ‘read’ or become cognizant of the symbolic significance of the use of a specific textile artifact. This object type, that of red and blue plied cords, was used not for dress *per se* but for the binding of hands in death. Several burials from the tomb #2 in Zaghunluq, a man, woman and infant, were each bound with red and blue Z-plied wool.



‘Charchän Man’



‘Chärchän woman’



Red and blue plied cords were used to bind the hands, as well as to fasten the bundle for the infant found in the same tomb (M-2 at Zhagunluq Chärchän). Virtually *identical* red and blue twisted cords were used in the binding of hands in a female burial in Subashi, hundreds of kilometers away and hundreds of years later than the Zhagunluq burials.





How do we approach understanding this phenomenon? My approach has been to first examine the tangible evidence, beginning with the incidence of these cords, their context and description. Then, we can cast our nets wider out and look at folkloric, ethnographic and historical documentation of salient features of this type of artifact, which in this case can be centered on the use of colours red and blue. The goal of this procedure is to initiate study of the possible symbolic aspects of these threads, keeping what is knowable and what is limited to conjecture in neighbouring but separate domains.

### **Tangible evidence**

Here is what we currently know: The dyes used in Zaghunluq: Four dye sources were used to create many colours in the textiles, from light beige to bright blue. Reds were produced with an *Alizarin* derived from madder root (*Ruteola* sp.) Blues derive from an *Indigoid* dye most likely from an *Indigofera* spp., possibly *I. tinctoria*. Yellows derived from at least two distinct dyeplant sources, one is a luteolin possibly from weld (*Reseda luteola* L.), and another, redder yellow from a yet unknown source. Many different colours were obtained by combining two of these primary colour dyes or by using them in combination with pigmented wools.

The cords from ‘Chärchän Man’ are comprised of two pairs of S-spun singles, a pair of red and a pair of blue threads twinned and then Z-plyed. It is not clear whether or not they are twisted around a core. The ‘Chärchän Lady’ also has red-blue cords, as does another, less

well-preserved female from this tomb. The infant's bunting is wrapped with not twinned pairs of spun thread, but rather plied slightly twisted combed wool.<sup>8</sup> It appears that these threads were dyed with *pure dye*; not mixed colorants such as was practiced in much of the clothing textiles from Zaghunluq.

Analytical domains: three modalities, compared, by context	
a. <b>Structure/form</b>	Cord of two plies of equal and even thickness plied in Z direction One red ply one blue, in colors of the same intensity, giving colour balance to the object
b. <b>Construction/technique</b>	sometimes spun, sometimes just combed 'roving'
c. <b>Composition/material</b>	wool (cashmere?)
Context	
In the context of burial	
Binding hands	
Historical Connections	
Incidence of red and blue thread and possible significance in their association with red/blue symbolism	

Figure 1. basic framework for study

### Teasing out connections

What can be said with a fair degree of certainty, is that A. the coloured cord had a symbolic component; i.e. it is *non-arbitrary* and indicates meaning was held in the structure and manufacture of these cords. B. The practice was concerned with death and treating the corporeal in death. C. That spinning and dyeing therefore had a participatory role in articulating their understanding of magic/supernatural/spiritual things. These activities (spinning, dyeing and by extension, weaving) were a human effort to enable connection with the spirit world. This effort, or work, through the vehicle of textile manufacture, is

8. This combed, fine wool is in the form of what spinners today call 'pencil roving'; wool prepared for spinning a very fine thread.



found in many other cultural practices throughout history and are worldwide (ie. these objects *have* meaning).

What **cannot** be said with certainty is what the precise symbolism of the red and blue cords was to the people who used them. Things knowable (and therefore possible to study in future) are: the specific type(s) of fiber, the number and type of knots; the lengths of the cords and survey the incidence of other similar cords, tracking their context and distribution.



Tapestry depicting double-headed fantastic creature - from lower band attaching 'ruffle' from a skirt from Sanpula- note rear neck of animal- of red and blue stripes.

Here is what I have found thusfar:



Burial context	<ul style="list-style-type: none"> <li>• In Estonia- hands bound; the threads then used for magic-</li> </ul>
	<ul style="list-style-type: none"> <li>• In Vedic India blue and red thread were tied on the hand with plant- <i>Solanum indicum</i>- for purification after washing the dead before burial</li> </ul>
Marriage context	<ul style="list-style-type: none"> <li>• In Vedic India – marriage custom- one red and one blue thread under two wheels of a cart</li> <li>• In Korea- wedding announcements sealed with red-blue threads symbolizing relationship stability</li> </ul>

## COLOUR SIGNIFICANCES

We can now examine what is known about color symbolism in the cosmological paradigms of both ancient India and China.

Taoist China and Vedic India both related to a fivefold concept of the material world which also encompassed understanding of the supernatural. There are five elements in Chinese cosmology; Wood, Fire, Earth, Metal, Water. These five elements affined with five colors: blue (and green), red, yellow, white and black, respectively. In Vedic India the elements (which translated into Ayurvedic medicine) are Void, Water, Earth, Fire, Air. The corresponding colours are white, blue, yellow, red, green. Of the ‘Panchamahabhuta’, or five elements, red (fire) and blue (water) combine to make ‘*Pitta dosha*’, meaning *transformation*.

## Ethnographic iterations<sup>9</sup>

There are other many other instances of ritual use of special cords, enough to fill a very large volume. Interestingly, there are some indicators of the significance of cords binding the hands within the context of burial. In small villages in Estonia, and in other parts of Eurasia, for example, the cords specifically used to bind hands and feet of a dead person are removed just before burial, and either tossed into the grave or used for healing magic (Mikkor 2005).

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9. I say ‘iterations’ rather than parallels because I do not assume there is a direct historical connection between these findings. They are just noted here as incidents.

What about the significance of the use of red and blue in combination? In Korea it symbolizes stable relationships between people (perhaps the balance between ‘fire’ and water’ (?) and is used for wedding announcements even today. In India, in wedding ceremonies a red thread and a blue thread are put under the wheel of a cart during the wedding procession.

## Summary

The incidences of threads and cords used in important ritual connected with both marriage and burial demonstrate the potency of symbol in thread in general; in fact the Sanskrit word ‘*sutra*’ means both ‘wisdom’ and ‘thread’.<sup>10</sup> Spinning, then, in this context, can be viewed as much more than a perfunctory domestic craft, but an act which can contain important ritual significance regarding purity, cleansing, the supernatural and the sacred.

These two short studies offer two parts of a broader project aiming to understand the social role of textiles in prehistoric contexts. The first study is one of garment structure and form (in the context of death) and examines a possible ethnohistoric relationship suggesting a specific social function for this garment in life. The second study examines a specific type of cord used in the burial ritual which is continued across time and space for centuries between what otherwise appear to be quite different cultural groups suggesting a shared semiotic (Zaghunluq and Subashi). It is hoped that this new work helps to bring the contextual study of archaeological textiles into current discussion of material culture studies and of the social meaning of archaeological materials.

*Thank you.*

## References

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10. ‘Sutra’ is derived from the Sanskrit verb *siv-*, meaning *to sew* (these words, including English *to sew* and Latinate *suture*, all derive from PIE \*sy\_ -). It literally means a rope or thread, and more metaphorically refers to an aphorism (or line, rule, formula), or a collection of such aphorisms in the form of a manual (wikipedia).

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