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Reconstructing the Greek *chiton*

** Note: Additional images illustrating the garments discussed in this article may be found on the Hoplologia website at <http://www.boarstooth.net/blog/2019/5/5/hoplologia-journal-reconstructing-the-greek-chiton-by-giannis-kadoglou>*

The *chiton* was originally a garment worn only by men, our earliest reference being the Homeric poems, the female equivalent being called a *peplos*. By the archaic period (8th-5th centuries BCE), however, the *chiton* was used both by men and women, in the latter case not replacing the *peplos*, and sometimes worn underneath it.

The *chiton* came in different sizes, materials and fashions, but in principle it remained a rectangular piece of cloth, folded and sometimes sewn along the side, and pinned at the shoulders to create openings for the arms and neck.

Materials

The two basic materials used for the *chiton* were wool and linen. Very fine plain weave wool created very soft fabric that allowed a pleated effect, which despite the excess material did not create a bulky look. The correct wool fabric poses a major difficulty in modern reconstructions of the *chiton*. On the one hand plain weaves are not very popular even among traditional weavers nowadays. On the other hand, the Greeks favored really fine threads and often dense weaves for their garments, for instance several threads per millimeter.¹ This is considered the most laborious and time consuming of weaving techniques, hence creating a challenge to the modern reenactor in creating the desired effects as depicted in ancient paintings and sculpture. In any case, we opt for the lightest possible fabrics, ideally in plain weave because no other weave has ever been found in a Greek context, to our knowledge.

Linen is the second preferred material for the *chiton*. Flax was cultivated in Greece, but linen was also imported probably since the Bronze Age,² and was used for *chitons* as well. It is

¹ Spantidaki, Stella. "Embellishment Techniques of Classical Greek Textiles", *Greek and Roman Textiles and Dress*, eds. Mary Harlow and Marie-Louise Nosch. Oxford: Oxbow Books, 2014, p 42.

² Marie-Louise Nosch, "Linen Textiles and Flax in Classical Greece: provenance and trade", *Textile Trade and Distribution in Antiquity* Edited by Kerstin Droß-Krüpe. Wiesbaden: Harrassowitz Verlag 2014, pp 17-42.

hard to distinguish in iconography which chiton is supposed to be wool or linen with any certainty. But we have two very interesting mentions about the linen chiton in our two most important archaic and classical history sources. Herodotus tells us³ that Athenian women were using the woolen Dorian peplos until the Persian Wars (492-479 BC) and that later they adopted the Ionian chiton which was made of linen. The reason was that the peplos was attached at the shoulders with large pins called *peronae*, which were once used as weapons by Athenian women. The Athenians having seen the danger they prohibited the use of the peplos by law. The linen Ionian chiton was attached by one or several buttons or smaller pins at the shoulders and along the upper arm.⁴

The other mention of the linen chiton referred to the garment worn by old Athenian men “not a long time before” the time of Thucydides.⁵ This would have been a long chiton, reaching either to the middle of the calf or even longer down to the ankles like women’s chitons. Both these garments qualify as chitons and are depicted in late archaic art, sometimes with and sometimes without the use of a belt.

Several pieces of linen fabrics have been excavated, and the good news is that good quality modern linen fabric can be convincingly used for reenactment. Again, some ancient specimens show intricate details, like woven threads of different thickness that create a square pattern,⁶ but even these things can be found in modern production.

Other materials were rare and sometimes expensive but are known to have been used for Greek garments. Namely types of indigenous silk, cotton and other plant fibers could be used for cloth or decoration.⁷ In the very specific occasion that you are reenacting a Macedonian soldier in Alexander’s army after his Indian campaign, it is legitimate to use an all-cotton chiton, for we are informed that he equipped his soldiers with them. Before that incident however, cotton was an exotic material for the Greeks, and its use would have been limited and prestigious.

Finally, combinations of the above materials were certainly used as supported by the archaeological record, with the warp and the weft being made of different materials.

Shape and size

In its basic form, a chiton is a rectangular piece of cloth which is then folded, sewn, pinned and belted around the body to create the first layer of clothing, apart from underwear. For such a simple concept, or perhaps because of it, there is a surprising number of different fashions and options that can be identified in our period. It is probable that to the ancient eye all these differences would signify things such as social status, profession, geographical origin, political ideas or even past fashions (“*oh, that fold is so 513 BC!*”), but most of this information is lost to us, and only scarce mentions in vivid comedy plays might give us some

³ Herodotus 5.87.

⁴ Brons, Cecilie. “Representation and Realities: fibular and pins in Greek and Near Eastern iconography”, *Greek and Roman Textiles and Dress*. eds. Mary Harlow and Marie-Louise Nosch. Oxford: Oxbow Books, 2014, pp. 60-94. This very useful article includes representations of how the peronae were inserted into the garment.

⁵ Thucydides. 1.6.

⁶ Spantidaki, p 39.

⁷ Margariti, Christina, and Maria Kinti. “The Conservation of a 5th-Century BC Excavated Textile Find from the Kerameikos Cemetery at Athens”, *Greek and Roman Textiles and Dress*. eds. Mary Harlow and Marie-Louise Nosch. Oxford: Oxbow Books, 2014, pp. 130-149.

hints to how the color or the length of a garment implied things about the femininity or the dignity of a person.

Here we will discuss the basics of chiton design, leaving the details of the numerous variations to the open-minded eye of the individual researcher.

Recreating a man's short chiton

You will need a piece of fabric twice the length of your stretch from elbow to elbow, plus a little longer to allow for sewn fringes. This will be the width of your chiton. The length should be from the base of your neck/clavicle bones, to over your knee. This roughly means a piece two meters long and one meter wide, depending on your size.

You fold the long side in half and sew the sides together to create a tube. This is optional, since some chitons seem to have left the side unsewn, but it is by far the commonest design for men and was always the case if you use linen.

Then you either sew or pin or button together two points along the top opening, to create three openings, for the arms and neck. It is advised that for the neck opening the space between the shoulders is shorter on the back than the front, or else the material tends to sit too high on your throat. Experiment with the correct position before you sew together the shoulders, as you will need enough room for your arms to move freely, and either too much or too little space for your head and neck can be uncomfortable as well.

After putting on the chiton (also known as *chitoniskos*, or little chiton in its short version), you need to fasten it with a belt around your waist. The belt should not sit where a modern belt secures your trousers but higher, at the level of your navel. When you have tied your belt, pull some material over the belt in the front, to create the overfold that is known as the *kolpos*. At the back, there should be

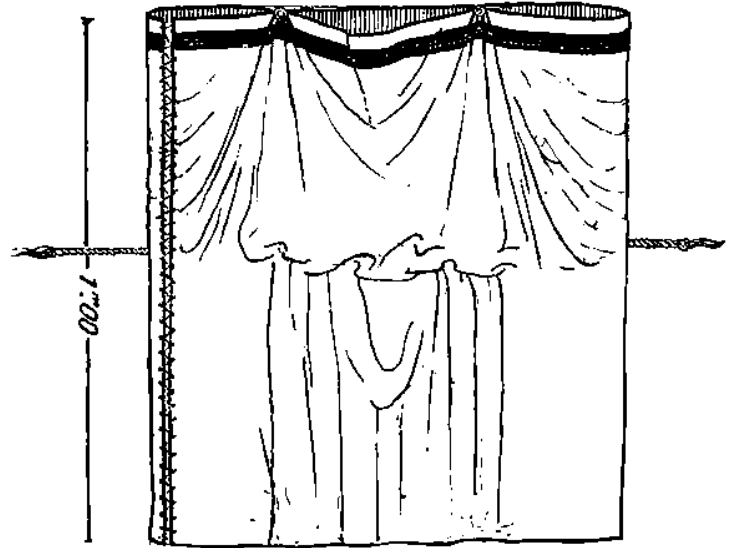


Figure 1: Chiton - Location of fastenings and belt.



Figure 2: Chiton – correctly worn. (Photo: Giannis Kadoglou)

no overfold, so that the bottom hem of the chiton hangs level and horizontal.

The exomis

The *exomis* is a variation of the short chiton. It literally means “exposed shoulder”, and this is what it is. A chiton where the front and back is only attached on one shoulder, the left.

The *exomis* was worn by laborers, and seems to have been adopted by soldiers only after the middle of the fifth century. The reason might be that it was a garment of the poor, and wealthy aristocrats who would form the bulk of the hoplite armies in the archaic era were not using it. It is also not practical under armour. We know from Thucydides that at the beginning of the Peloponnesian War all cities needed to expand their armies by incorporating lower classes among their ranks, and this is where we start to see the *exomis* becoming popular among soldiers throughout Greece.

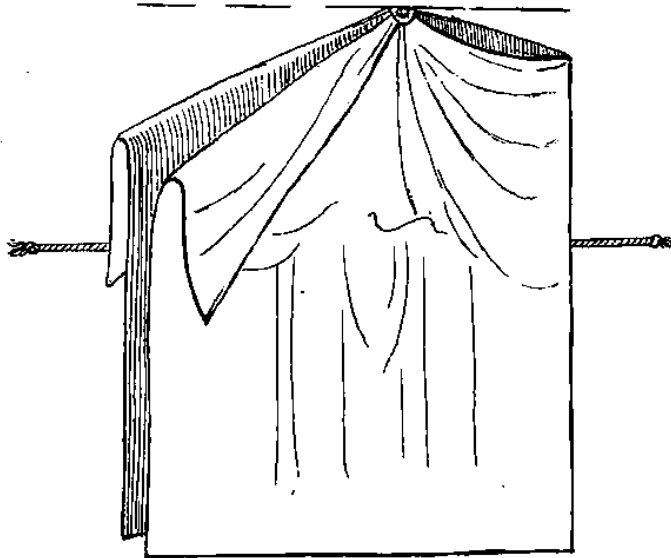


Figure 3: *Exomis* – Location of fastenings and belt.

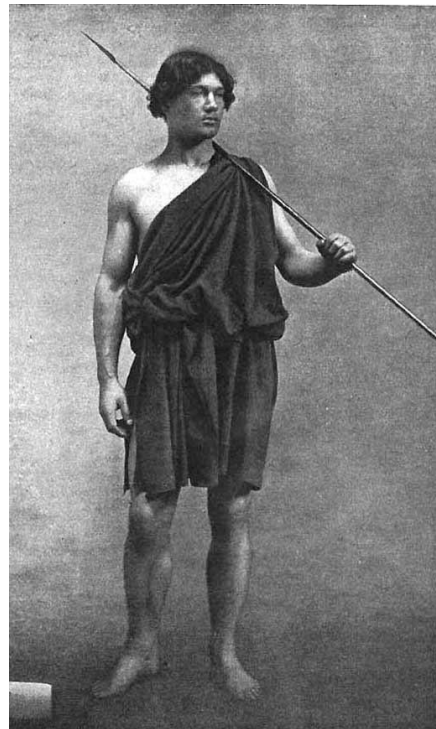


Figure 4: *Exomis* – As worn

Recreating a man's long chiton

The long chiton is associated with mature men, out of military context. It is also associated with priests, and young charioteers, who wore it to protect their dignity against the wind on a speeding chariot.

It came on two widths and two lengths. Either as narrow as a short chiton or very wide and bulky like a female Ionian chiton. In fact, the Ionian chiton seems to be identical for men and women. But both narrower and wider versions came in two lengths as well, mid-calf and ankle length.

The narrow version was often left unbelted.

The material of the man's long chiton was probably usually made of linen and was usually pleated. It was often worn together with a *himation* (a long mantle) over it. The short chiton was never worn with a *himation*; when younger men wore a *himation* they seem to have been naked underneath. An exception was to wear a *himation* over your armour, under which you obviously wore a short chiton.

Recreating a woman's Dorian chiton or peplos

The terms *peplos* and *Dorian chiton* are interchangeable, the former being the earlier of the two but both being used simultaneously. *Peplos* or *pepla* however may refer to other things as well, in the general means of a fabric "cover", or metaphorically (the cover of night).

It was basically a longer version of the man's chiton, and it was invariably made of wool. It was more often left unsewn on the right side and was pinned at the shoulders with two long pins called *peronae*. Variations included an overfold that reached down to the waist or below the waist, and leaving the garment unbelted or belted under or over the overfold.

To create the peplos you need a piece of fabric about two meters long. To calculate the width, measure the length between your clavicles and the ground then add to that the distance between your clavicles and where you want your overfold to reach (for example your navel).

First create the overfold by folding the cloth along the top edge.

Then fold the fabric in half and pin the shoulders with the *peronae* or other pins. Do not sew them together. Do not sew the sides either, or if you do, use the measuring technique



Figure 5: A typical peplos with an overfold that does not reach beyond the belt. Other versions have such a long overfold that the belt is tied around it as well.

described in the men's chiton, from elbow to elbow, or else the two meters might be too long.

Then tie a belt around your waist at navel level, and pull the fabric in the front just enough for it not to touch the ground.

Since the right side is usually left unsewn, you don't need to place the left arm and the neck hole in the middle. Instead, create enough room for these two holes, and then leave the excess material to hang freely on the right.

Recreating a woman's Ionian chiton.

The Ionian chiton was probably made of linen, although wool is not out of the question, but we will discuss the specifics in the section about embellishment techniques.

The Ionian chiton was a fuller garment, albeit lighter than the Dorian chiton. Its most prominent characteristic is that it is heavily pleated and thus it requires a much wider piece of



Figure 6: The Ionian chiton as depicted on a vase painting. Note the transparency of the material.



Figure 7: A reconstructed Ionian chiton with an overfold.

fabric. It could be one-fold or it could have an overfold like the peplos.

It also came in two basic widths, one narrower that looked more like the male equivalent of the short chiton, and one wider that needed several pins or buttons along the upper arm and created a sleeve-like effect. The wider version was most common among women and older men.

To make the simple Ionian chiton without the overfold in the full width, you need a piece of fabric twice the length between your wrists when you have your arms stretched. For the



Figure 8: A reconstructed Ionian chiton without an overfold, and finely pleated.

length of your chiton, measure from the base of your neck to the ground. Sew the sides together and pin or button the top edge to create sleeves and neck hole. Tie the belt at navel level and pull the fabric over the belt to create the kolpos – just enough so you don't step on the bottom hem. (To make an Ionian chiton with the overfold, you will need to add extra length, and fold it over as you would the peplos before adding the sleeve fastenings.)

While it is easier to find correct linen today than it is to find the right kind of wool fabric, do take the extra step of pleating your chiton, or else it will look or else it will look too wide, bulky and wrinkled.



Figure 9: Women's Ionian chiton – Location of the sleeve fastenings.

Embellishment techniques

Greek textiles were plain and very fine, and most of their garments consisted of rectangular pieces of cloth, either sewn or pinned or simply draped around the body. However, we would hardly call their clothing boring, if we had the chance to see them up close, for they were often lavishly decorated and colorful. In fact, in our small and fragmentary samples of surviving ancient Greek textiles (26 fragments dating to the 5th and 4th centuries BC), one can find a variety of decoration techniques, which give valuable insight on what the intricate ancient depictions might represent.⁸

The borders of the chiton were often decorated with strips of geometric and other designs. These were probably woven in the fabric, which means that some chitons might have been woven to size. Representations of clothing in art suggest that softness and movement were vital in Greek fashion, and weaving to size ensures that the hems were not stiffened by turned edges or sewn bands. Some sculptures do show what could be interpreted as sewn on tablet woven bands, and occasionally this happens on bottom edges too, especially in archaic times. Do not do that on the bottom of a pleated linen chiton however, only on the top, which could serve to reinforce the attachment points.

Embroidered decoration was also frequent either as repeated designs along the hems, or as small designs in the whole surface of the fabric. Stars, flowers and spirals were popular motifs, but you could find more intricate ones such as lions and birds.

Resist dying was used for more intricate motifs or whole scenes that resembled vase paintings, although we can't say with certainty that this was used on chitons or in other pieces of clothing like mantles and himatia.

Precious metal threads were often woven as strips or designs at the hems of fabric, although again we can't say with certainty if the excavated remnants come from chitons or other garments.

Paint was used on clothing. At least one textile fragment has been excavated with traces of two crossing lines painted black. As above, this should be used with caution on a chiton.

Pleating was one of the main embellishment techniques of the chiton. Some chitons show what could be interpreted as carefully folded and sewn pleats, some times secured by a turned hem or sewn band. Linen is easily but temporarily pleated if you wet and twist the garment and let dry close to a heat source. It is not impossible that some chitons were ironed or pressed to create pleats, because we know that there existed a profession in the fabric industry that dealt with the creation of pleats.⁹

Perhaps the most interesting pleats were those created on woolen fabrics by overtwisting the weft yarn before weaving.¹⁰ After washing the fabric, you come up with lovely permanent pleats that put into question our identification of linen vs wool fabrics on ancient depictions. The technique is known today as "collapse weave". What is even more interesting with this technique is that you can create layers of pleated and unpleated fabric, or even have the top half of the chiton pleated and the bottom half unpleated, all of which is frequently depicted in ancient iconography but never accurately reproduced by reenactors.

⁸ Spantidaki, pp 34-45.

⁹ Spantidaki, p 41.

¹⁰ Spantidaki, p 41.

Belts

In the late Geometric period both men and women wore intricate decorated belts, some times completely covered in bronze sheet or bronze disks and secured with large pins. From the Archaic period, however, belts become a minor feature of Greek clothing, perhaps because the wide chitons with their kolpos (the overfold of the material pulled over the belt) almost completely hid the belt. Archaic belts are usually tablet woven bands that are becoming exceedingly narrower. Some early archaic korae statues show a system with a hook and holes, which indicates a leather belt, but it is the exception and appears to have been short lived.

By the classical period (5th-4th centuries BCE) the belt or *zone* consists in nothing more than a thin "rope" which was probably also tablet woven and twisted to create a cylindrical strap. This is a very comfortable solution since the woolen rope is both durable soft and elastic, which makes it superior to ropes of other materials.