



Dominique Cardon and H el ene Cuvigny

New evidence and comparative study on fragments of hooded semicircular cloaks found in the Eastern Desert of Egypt

This paper offers a new complement to Hero Granger-Taylor's seminal publications on woven-to-shape semicircular cloaks in two recent issues of ATN (Granger-Taylor 2007, 2008). Archaeological excavations of a series of praesidia in the Eastern Desert of Egypt – the aims and results of which are summarized in ATN 50 and in the present issue – have provided several additional examples of fragments of textiles that could be identified as characteristic parts of hooded semicircular cloaks and, more precisely, in some cases, as parts of hoods. Such identifications are based on Granger-Taylor's precise descriptions of the technical details of a hooded semicircular cloak discovered in a grave in the Nubian site of Ballana, and of fragments of cloaks from Qasr Ibrim that she recognised as parts of a hood. The corresponding plans she proposed for a semicircular cloak and for its hood have helped us locate the position of some textile fragments from Didymoi and Dios belonging to cloak hoods, and to understand from which other parts of hooded semicircular cloaks some textile fragments from Dios and Xeron came (Granger-Taylor 2008, figs. 6, 8; Cardon et al. 2010, fig. 7; Cardon et al., forthcoming, fig. 322).

Fragments from the hoods of two more cloaks have just been identified this year, among the textile remains from Dios that had not been examined previously. They correspond respectively to a side and to the bottom right corner of a cloak hood (Fig. 1). They are published here with two fragments from another semicircular hooded cloak from Didymoi, which is not included in the forthcoming chapter on clothing

textiles from that site (Cardon et al., forthcoming). The fragments correspond respectively to one of the sides of the hood and to the upper part of a side section of the cloak (Fig. 2). The technical characteristics of this cloak are nearly identical to those of the cloaks in 1/2 twill from Dios.

In table 1 are summarized the common technical features and differences that can be observed among hooded cloaks identified so far in the rubbish heaps of praesidia excavated by our team. Three main types of hooded cloaks with decorative contrasting bands in tapestry are found so far: light cloaks woven in tabby, with thin purple bands on an undyed off-white ground; thicker cloaks woven in 1/2 twill, with broader, salmon pink to purple bands on grounds that range in colour from golden-beige to pinkish-orange. The third type, very similar to the Ballana cloak, consists of very high-quality, comparatively thin albeit very densely woven cloaks in tightly weft-faced 2/2 twill, with fairly wide red-purple bands on a cream-coloured undyed ground.

These three types of semicircular hooded cloaks are distinctive enough and it is tempting to think that they may have been given distinct names by the people who were making them or buying them. It is therefore frustrating to have to admit that, for want of associated descriptions, it is still impossible to connect any of them with one of the three names mentioned in ostraca of the Eastern Desert for outer garments, the first of which clearly designates a hooded garment, the two other – rather rare words – being much less descriptive. Koukoullon (from latin cucul-



Ref.	Date CE ¹	Ground weave	Weave in band	Tapestry technique at vertical joins	Spinning system ² ground	Spinning system band weft
<i>Didymoi</i> D98.4404.1 (Cardon <i>et al.</i> forthcoming)	176-210	tabby	Warp + weft paired in vertical part of band	Over shared paired warp end	s / s	s
D99.1516.1 (Cardon <i>et al.</i> forthcoming)	125-140	2/2 twill	2:2 twill	–	Z2s / z	z
D99.3321.2 + 3324.11.2	110-120	1/2 twill Z weft face	Warp grouped in vertical and horizontal parts of band 2:1:2 Weft paired in vertical part, simple in horizontal part of band	Over shared paired warp end	s / z	z
<i>Dios</i> Dios.4405.2 (Cardon <i>et al.</i> 2010)	mid 2 nd c.	tabby	Warp paired in vertical and horizontal parts of band Weft paired in vertical part, simple in horizontal part of band	Interlocking wefts	s / s	z
Dios.2403.1	c. 138-161 CE	tabby	Warp + weft paired in vertical part of band	Over shared paired warp end	s / s	s
Dios.5637.1 (Cardon <i>et al.</i> 2010)	2 nd c.	1/2 twill Z weft face	Warp + weft paired in vertical part of band	Over shared paired warp end	s / z	z
Dios.2506.1 (Cardon <i>et al.</i> 2010)	mid 2 nd c.	1/2 twill Z weft face	Warp + weft paired in contrasting band	Interlocking wefts	S2z / z	s
Dios.2720.1	c. 117-138 CE	1/2 twill Z weft face	Warp grouped in vertical and horizontal parts of band 2:1:2 Weft paired in vertical part, simple in horizontal part	Over shared paired warp end	s / z	z

¹ Date when fragment was discarded into the rubbish heap.

² Spinning system, explanation of notation : S / S = warp S-spin / ground weft S-spin.

Table 1. Technical characteristics of fragments of hooded semicircular cloaks decorated with contrasting bands or tapestry ornaments discovered in praesidia of the Eastern Desert of Egypt.

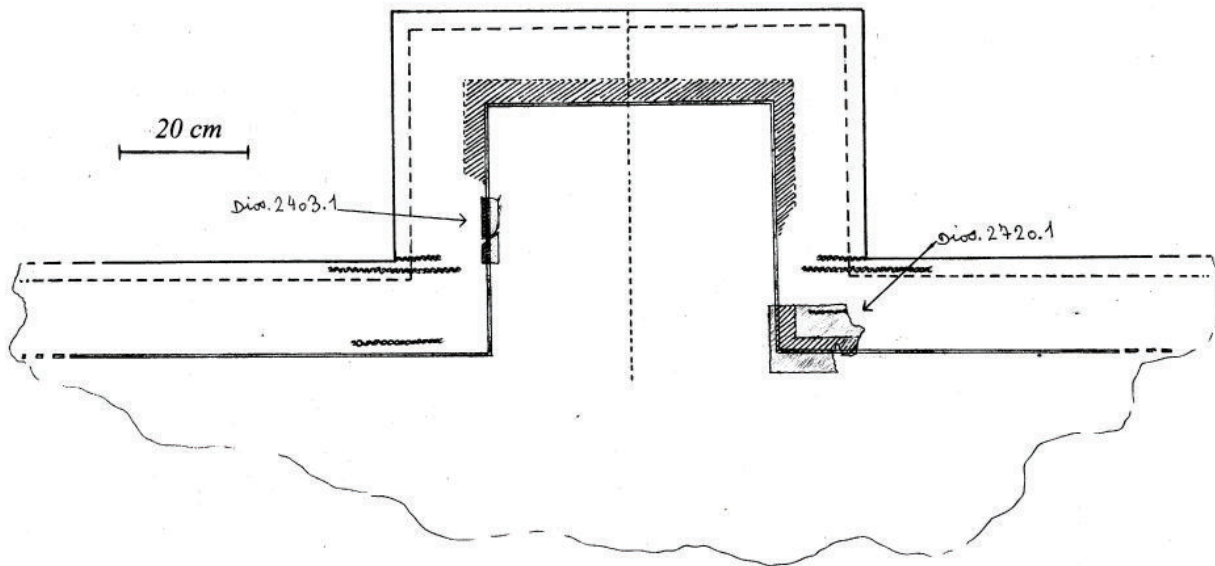


Fig. 1. Position of fragment Dios.2720.1 and proposed position for fragments Dios.2403.1. A + B on the outline of a hood reconstructed from fragments found at Qasr Ibrim. Drawing by J.M. Tarrant and H. Granger-Taylor (plan of hood) and D. Cardon (superposed fragments).

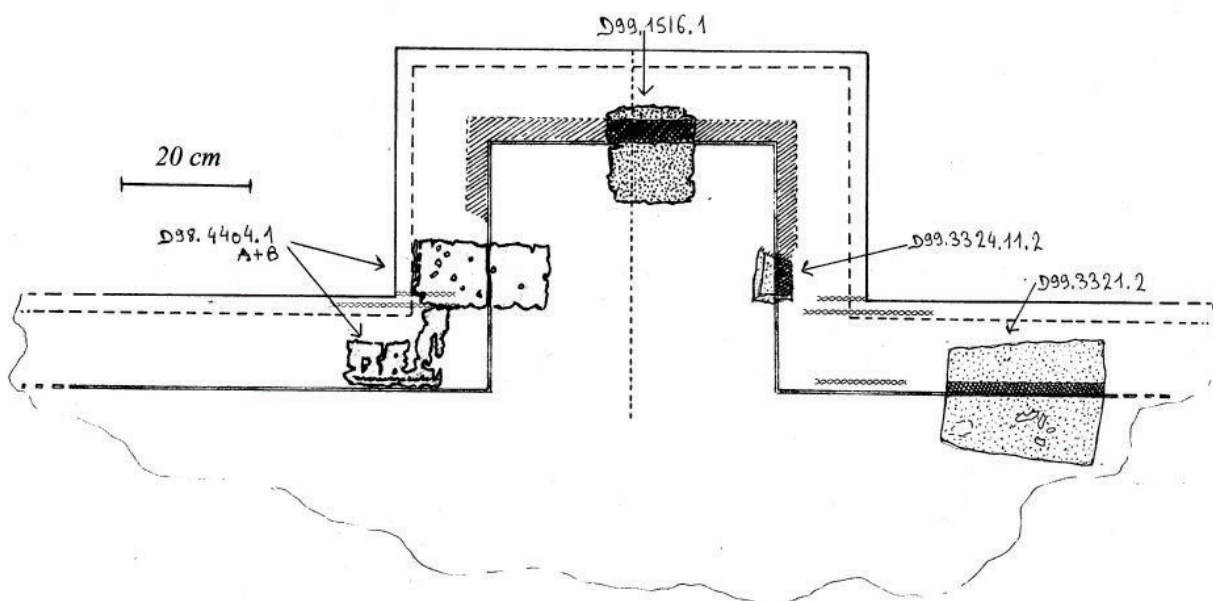


Fig. 2. Positions of fragments of hooded cloaks from Didymoi on the outline of a hood reconstructed from fragments found at Qasr Ibrim. Drawing by J.M. Tarrant and H. Granger-Taylor (plan of hood) and D. Cardon, H. Granger-Taylor and P. Cabrolhier (superposed fragments).



lus) is mentioned in an ostrakon from Dios, O.Dios inv. 750: "you will do well to send Apolinaris' cuculum. He has written to ask for it because the weather is bad". Aliklion (diminutive form of latin alicula, itself possibly derived from greek allix) is found on ostrakon O.Dios inv. 1298; and a paradromax ('mantle, wrap?') is mentioned in O.Dios inv. 548. In spite of the recurring difficulty of relating the names given to items of clothing in written sources to actual archaeological textiles and remains of garments, each new example of fragment from a semicircular hooded cloak identified, and published, contributes to enrich our understanding of the technical variations, the different colour combinations and the range of qualities which could be found in a type of garment that definitely appears to have been particularly valuable for soldiers.

Dios.2403.1. Two fragments of side of cloak hood in weft-faced tabby, undyed with part of mauve-pink vertical band in tapestry (Fig. 3)

Date : 2403 = discarded under Antoninus Pius' reign = c. 138-161 CE

Description

Dimensions, preservation

Fragment A, c. 5.3 x 2.25 cm; fragment B, c. 4.9 x 2.3 cm; width of pink vertical stripe preserved in both fragments: 1-1.1 cm; the fragments seem to have both been parts of a long narrow strip neatly cut from the original garment for re-use; preservation good but colour of contrasting weft possibly somewhat faded.

Technical characteristics

Wool, ground weave tabby, weft-faced, fine and close texture, very good quality; extended tabby with both warp and weft paired in mauve-pink vertical tapestry stripe; 7 groups of paired warp ends are preserved in both fragments; at the vertical joins between mauve-pink and ground wefts, paired threads of purple weft and single threads of ground weft alternately turn back around the same paired warp thread, creating a toothed effect.

Warp: undyed, light beige, tight S-spin, c.15 ends per cm (abbreviated epcm below); 4 paired ends (8 ends) in 0.5 cm in vertical band.

Ground weft: same colour as warp, tight s-spin, c. 28 picks per cm (abbreviated ppcm below).

Contrasting weft: mauve-pink, s-spin, paired, c. 28 ppcm (= 56 threads).

Dye identification of mauve-pink weft: the results of dye-analysis are not available yet.

Discussion

These fragments best compare with those of two cloak hoods, one already found in Dios (Dios.4405.2, published in Cardon et al. 2010) and the second from



Fig. 3. Dios.2403.1. A + B. Two fragments of side of cloak hood.



Didymoi (D98.4404.1 A+B), discarded between 176 and 210 CE as part of a kentron (Cardon et al. forthcoming). In Figure 1, the position of the fragment is shown on the outline of the plan of a cloak hood reconstituted by Granger-Taylor from hood fragments of the Roman period discovered at Qasr Ibrim, in Nubia (Granger-Taylor 2008, fig. 8). It could belong to either of the two sides of the hood. Similarities with these two cloaks from Dios and Didymoi are: the ground weave in tabby; in the three textiles, the warp and contrasting weft are paired in the vertical part of the pink to pinkish-purple bands and the tapestry technique used in the vertical joins between ground and band is the same. But there also are differences between the three textiles: here the warp count in the ground weave is slightly lower than in the two others. In the present fragments as in the fragment of hood from Didymoi, s-spin threads are used for the warp and for both ground and contrasting wefts, while the contrasting weft in the fragment from Dios

previously published is z-spun. Most importantly, in the fragments from Dios, the lesser thinness of the contrasting wefts betrays their lower quality, as compared with the amazing thinness of the weft, dyed with true purple, in the decorative band of the hooded cloak from Didymoi, approximately 150 threads of which can be counted per cm.

Dios.2720.1. Fragment of lower corner of cloak hood, decorated with a pink right-angle in tapestry, with reinforcement of weft twining (Fig. 4)

Date: 2720 = discarded under Hadrian's reign = c. 117-138 CE

Description

10.1 x 14.5 cm; pink stripe c. 3 cm wide in vertical part of tapestry angle, running parallel next to a vertical hem, c. 1 cm wide; horizontal part of pink right-angle c. 2.5 cm deep, running parallel to upper horizontal torn edge, at c. 3.8 cm from it, and to lower torn and folded-in edge, c. 2.8 cm from fold;



Fig. 4. Dios.2720.1. Fragment of lower corner of hood.



Fig. 5. Dios.2720.1. Detail of reverse face, showing remains of reinforcement in weft twining.

remains of double row of weft twining (only 5.3 cm preserved) running parallel the band where it is horizontal, c. 2.6 cm above it, and to upper torn edge, c. 0.5 cm under it, ending at c. 2 cm from the band where it is vertical (fig. 5); one big stabbing stitch in white linen (0.5 cm long) in bias direction, across the ground weave between the horizontal part of the band and the reinforcement in weft twining; much worn, with several holes both in the ground and in the pink parts; encrusted dirt; preservation medium, but pink contrasting weft still quite bright.

Technical characteristics

Wool, 1/2 twill weave (diagonal of the twill in Z direction on weft face) and tapestry in pink vertical band. Ground weave densely weft-faced, quality fine and dense. Warp threads grouped in both vertical and horizontal parts of pink band 2:1:2:1 etc.; pink weft threads are paired in vertical part of band, single in horizontal part; at the vertical joins between pink and ground wefts, paired threads of pink weft and single threads of ground weft alternately turn back around the same paired warp, creating a toothed effect. The twining reinforcement is worked over 3 warp ends and is made with pairs of plied threads.

Warp: golden beige, s-spin, shiny, c.14 epcm.

Ground weft: same colour as warp, slight z-spin, c.22 ppcm.

Contrasting weft: bright pink, slight z-spin, paired in vertical part of band, 21 ppcm (= 42 weft threads), simple in horizontal part, 37 ppcm.

Weft in rows of weft twining, same colour as ground weft, z-spin 2 S-ply, grouped by pairs.

Dye identification: results of dye-analyses of contrast-

ing pink weft not available yet.

Construction

For re-using the worn hood a torn vertical edge has been folded and hemmed in. Sewing thread in needlework edging, wool, now greyish-purple, paired z-spin 2 S-ply yarn.

Stabbing stitch, white linen, s-spin 2 Z-ply.

Discussion

In Figure 1, the position of the fragment is shown on the outline of the plan of a cloak hood from Qasr Ibrim as reconstituted by Hero Granger-Taylor. It most probably belongs to the right corner at the bottom of the hood and top of the right wing. This is shown by the remains of reinforcement of weft twining above the horizontal part of the band: such reinforcements are present at the bottom corners of the hood on the Ballana cloak and on two fragments of a hooded cloak from Didymoi (D98.4404.1 A+B). The position of the fragment on the right side of the cloak implies that the twill face with weft floats is the right – outer - face of the garment, which is the case for all cloaks woven in 1:2 twill with pile loops on the inner face (Granger-Taylor, pers. comm.).

The present fragment is quite similar to fragments of cloaks in fine brown weft-faced 1:2 twills found in Qasr Ibrim (Granger-Taylor 2008, 13-14) and to fragments of two different hooded cloaks in 1/2 twill from Dios published previously. The two other 1/2 twills from Dios, however, have different spinning systems for the ground weave, and the tapestry technique used at the vertical joins between purple and ground wefts also differs between the present fragment and Dios 2506.1. The presence of a big stabbing stitch in



white linen thread on this fragment makes it likely that it ended up in the rubbish heap at Dios as part of a kentron. In this hypothesis, the hooded cloak it originally belonged to, would have been woven much earlier and would probably not have been worn by one of the fort dwellers.

Two fragments of probably the same pinkish-beige hooded cloak with red-purple band from Didymoi

D99.3321.2. Fragment of pinkish-beige cloak, decorated with a red purple band, used as patch on piece of plain 1:2 twill (Figs 6-7)

Date: 3321 = discarded c. 115-120 CE

Description

22 x 36.3 cm; red purple band c. 2.2 cm deep, running at a maximum distance of c. 6.4 cm from upper torn edge; much worn, with several holes both in the ground and in the purple parts; encrusted dust; preservation medium.

Technical characteristics

Wool, 1/2 twill weave (diagonal of the twill in Z direction on weft face) and extended tabby in pinkish purple band. Ground weave densely weft-faced, quality fine and dense. Warp threads grouped in pink-purple band 2:1:2:1 etc.

Warp: pinkish-beige, tight s-spin, c.14 epcm.

Ground weft: same colour as warp, slight z-spin, c.24 ppcm.

Contrasting weft: red purple, slight z-spin, 40 ppcm.

Dye identification: results of dye-analyses of ground and of contrasting purple weft not available yet.

Construction

The less worn-out part of a cloak, with portion of the horizontal decorative band along the upper part of the wings, has been used as patch, by being folded and hemmed in along three sides and sewn by whipping stitches onto a piece of similar material. The weft face sides of the patch and of the piece onto which it has been sewn are facing each other. Sewing thread, wool, off-white, z-spin 2 S-plied.

Discussion

The patch with the purple band and the plain textile onto which it has been sewn most probably belong to distinct parts of the same original garment, since the technical characteristics of the ground weaves are the same. This is also true of the technical characteristics of the following small fragment, which is most probably a part of the hood of the same cloak. Results of dye analyses of ground and bands in both fragments may bring more elements to confirm or invalidate this hypothesis. Both textiles have been found exactly in the same part of the rubbish heap, but above each other, that is, in two adjacent superposed layers.

If they are not parts of the same original cloak, this would mean that there existed two - or three - nearly identical hooded cloaks, whose fragments were finally discarded around 115 CE in Didymoi. In any case, the technical similarities with the fragments of hooded cloaks in 1/2 twill from Dios - particularly Dios.2720.1 - show (Table 1) that they all belong to a standard type of cloak, possibly produced in the same textile centre.

This fragment also contributes interesting information to the on-going study of hooded cloaks of the Roman period found in Egypt: the distance preserved between the band and the torn upper edge is superior by c. 1.5 cm to the distance between the decorative band and upper horizontal edge with sewn edging in the Ballana cloak. This confirms H. Granger-Taylor's assumption that the cloaks were often refurbished, eliminating worn edges, and her reconstruction of the original dimensions of the cloak as being superior by at least 3 cm all around to those that could be measured on the remains found in the tomb.

D99.3324.11.2. Fragment of pinkish-beige cloak hood with red purple vertical band in tapestry (Figs 8-9)

Date: 3324 = discarded c. 110-115 CE

Description

C. 7.5 x 6 cm; vertical part of red purple band c. 2.7 cm wide (this is the original width, as shown by several preserved loops of contrasting weft turning back into the tapestry band on the side opposite to vertical hemming, fig. 7); running parallel to vertical hem (0.8 cm wide), at c. 2.2 cm from folded-in edge; worn, particularly purple weft in upper part of band, with holes both in the ground and in the purple band; preservation medium.

Technical characteristics

Wool, 1/2 twill weave (diagonal of the twill in Z direction on weft face) and tapestry in red purple vertical band. Ground weave densely weft-faced, quality fine and dense. Warp threads grouped in vertical purple band 2:1:2:1 etc.; purple weft threads paired in band; at the vertical joints between red purple and ground wefts, paired threads of contrasting weft and single threads of ground weft alternately turn back around the same paired warp, creating a toothed effect.

Warp: pink-beige, tight s-spin, c.14-16 epcm.

Ground weft: same colour as warp, slight z-spin, c.24 ppcm.

Contrasting weft: red-purple, slight z-spin, paired, 20 ppcm (= 40 weft threads).

Dye identification: results of dye-analyses of ground yarns and contrasting red-purple weft not available yet.



Fig. 6. D99.3321.2. and 3324.11.2. Fragments from cloak wing and from side of hood, weft face of patch with purple band and hood fragment.



Fig. 7. D99.3321.2. and 3324.11.2. Fragments from cloak wing and from side of hood, warp face of patch with purple band and side of hood.



Fig. 8. D99.3324.11.2. Fragment from side of hood, weft face of twill ground.

Construction

For re-using this part of worn hood, torn vertical and horizontal edges have been folded and hemmed in and the bottom hem in the weft direction has been sewn onto another piece of the same fabric; sewing thread, wool, off-white, s-spin, paired.

Discussion

All the patching, hemming and sewing work that was done to repair or recycle the original cloak - obviously considered a valuable piece of textile - may have taken place on the site, before the worn out fragments were eventually discarded. This would imply that the garment arrived with one of the fort dwellers. This extensive repairing and recycling work also means that the cloak was woven much earlier, possibly during the second quarter of the 1st century CE.



Fig. 9. D99.3324.11.2. Fragment from side of hood, warp face of twill ground.

Bibliography

Cardon, D., A. Bülow-Jacobsen and H. Cuvigny (2010) Recent textile finds from Dios and Xeron. *ATN* 50, 2-13.

Cardon, D., H. Granger-Taylor and W. Nowik (forthcoming) How were they dressed? Fragments of clothing found at Didymoi: case studies. In H. Cuvigny (ed.), *Didymoi - Une garnison romaine dans le désert Oriental d'Égypte*. Cairo.

Granger-Taylor, H. (2007) Weaving clothes to shape in the ancient world, 25 years on: corrections and further details with particular reference to the cloaks from Lahun. *ATN* 45, 26-35.

Granger-Taylor, H. (2008) A fragmentary Roman cloak probably of the 1st c. CE and off-cuts from other semicircular cloaks. *ATN* 46, 6-16.

Corresponding author: Dr. Dominique Cardon, Directrice de Recherche CNRS, CIHAM/UMR 5648, 18 quai Claude-Bernard, 69365 Lyon Cédex 07, France; cardon.dominique@wanadoo.fr.