

**‘CORD’ ORNAMENTS ON POTTERY
IN THE VISTULA AND DNEIPER
INTERFLUVIAL REGION:
5TH – 4TH MILL. BC**

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Editor's Foreword

The issues outlined in the above volume of *Baltic-Pontic Studies* (BPS) presented here, can be said to generate several important and complex questions among which, one relating to the topogenesis of 'corded' ornamentation on the bio-cultural borderlands of east and west Europe, gave birth to an innovative research project. In this respect, specialist researchers of the Pontic-Baltic Eneolithic (from Middle and Late Neolithic contexts) chose 45 vessels (mostly fragments) originating from the Dnieper-Southern Bug drainage area and Vistula, dated to the 5th - 4th/3rd mill. BC for the purposes of microscopic analyses conducted with the aim of identifying 'corded' patterns of ornamentation. These laboratory tests were led by an archaeologist specialising in microscopic analysis to identify interdisciplinary, pre-historic and archaic techniques in the textile crafts.

The implications of the above tests would seem to warrant a manifold approach to possible conclusions on the basis of specialist (microscopic) criteria of differentiated - previously identified as macroscopic - in general terms as 'corded' motifs of ceramic ware ornamentation (part 1). This also concerns an outline of investigation drawn from hermeneutics, prompted by various contexts such as historical and cultural assessment of bio-cultural communities and related findings as well as attempts to generate a coherent framework of linguistic and cultural research for 'corded ornamentation on ceramic ware' (part 2).

In discussing further the 'main issues' presented in this publication of BPS 15 in respect to the hand manufacture of ceramic ware of the Vistula and Dnieper interfluvial region and its peoples, a modus operandi of investigation in the context of region has been proposed whereby researchers of this particular project have been given a free hand, as it were, in respect to the degree and forms of application in microscopic analyses and their findings. A series of commentaries has therefore arisen, from various points of view in so far as reflections on research conducted - possible future strategies for vital questions in this matter that are yet to be answered (part 3).

It is assumed therefore that this volume has in some measure initiated a process of the highest consequence, one introducing a new level of off-site investigation into the genesis of corded ornamentation development, which deserves to be supported in addition through a personal engagement in this research field.

Editorial comment

1. All dates in the B-PS are calibrated [BC; see: Radiocarbon vol. 28, 1986, and the next volumes]. Deviations from this rule will be point out in notes [bc].
2. The names of the archaeological cultures and sites are standarized to the English literature on the subject (e.g. M. Gimbutas, J.P. Mallory). In the case of a new term, the author's original name has been retained.
3. The spelling of names of localities having the rank of administrative centres follows official, state, English language cartographic publications (e.g. *Ukraine, scale 1 : 2 000 000*, Kiev: Mapa LTD, edition of 1996; *Rèspublika BELARUS', REVIEW-TOPOGRAPHIC MAP*, scale 1:1 000 000, Minsk: *BYELORUSSIAN CARTOGRAPHIC AN GEODETIC ENTERPISE*, edition 1993).

Andrzej Sikorski

MORE THAN JUST ‘CORDS’ ON NEOLITHIC CERAMIC WARE: AN OUTLINE OF MICROSCOPIC IDENTIFICATION FOR ‘CORDED ORNAMENTATION’. SOME THOUGHTS ON RESEARCH METHODS

Corded ornamentation as one of the main markers in the ‘ceramic ware stage’ of prehistory, can indeed boast a comprehensive literature, though it may be argued, there is a lack of detailed analysis in respect to microscopic identification of the function and application of techniques – to take one pioneering study [Jażdżewski 1936] as an example, an early inspiration. This brief study therefore will document the above textile research in terms of a reduced scope of investigation to that of the above.

1. RESEARCH PROJECT AIMS

Since at least 1998 in the Institute of Prehistory, Adam Mickiewicz University in Poznań, research has been conducted on textile impressions on clay and other goods [Sikorski 2003:131ff]. Further, it is known that apart from their main function, non-woven and woven textiles were also an important tool in the pottery, where decorative (new) textiles as vessel ornaments were used or partially already used for matrices, planing surfaces or drying pots [Łaszczyńska 1966:23-34]. At times occasional impressions are ‘preserved’, which also when for various reasons there is no ‘excavation textile’ (organic materials rarely are preserved in ancient archaeological sites and objects), in themselves complement the basic data on prehistoric textile crafts (if not erased during use in their epoch, and then washing and recording of surface crust by researcher). In this situation every textile impression is important for ceramic and textile research, in particular for ‘older’ cultures.

The main aim of investigation in this context was the verification of 'cord' ornaments, which apart from their appeal in a decorative and application sense, were also instrumental in determining the chronology of respective complexes of findings. In the context of mega and micro observations this has suggested an application on a greater scale of other non-woven textiles (and possibly woven), other than cord itself. Moreover, it would seem such decorative applications as household (flexible) 'textile matrices' were widely used (plaits, mats, string-embroided) tapes, which were quickly and faultlessly applied to embellish the sides of vessels [Michałowski, Sikorski 2005:180ff]. These observations to some extent have raised new possibilities of interpreting two and three-strand cord, without limiting this discussion to much earlier experiments on the part of W. Maciejewski [Jazdzewski 1936:250].

2. DISCUSSION OF SAMPLES AND RESEARCH METHODS

Microscopic analysis was undertaken for 45 ceramic vessel samples from settlements (40) and cemetery complexes (5) from Poland and Ukraine. Only small and very small fragments were to be found, as well as 3 intact receptacles with characteristic cord ornaments, which belong to various cultural groups and phases [Koško, Sikorski, Szmyt... – part 1, in this volume]. The condition of ceramic fragments and size of samples (from 6 to 50 cm²; intact vessels accordingly larger) determined the limitations in the precision of correct identification and classification of impressions on both sides of the receptacle. In addition, careful cleaning of vessel surface impressions often caused difficulties, resulting in erasure of negatives that were already shallow, as well as the bands between them – especially as far as ongoing analysis was concerned. Elements relevant to the above are: precision in ornament design, presence of a 'grill' between particular hollows left 'after cords', regular depth of negatives (single/repeated impressing), their closeness (every 0,8-2 mm horizontally, vertically or slanted), strategies for dealing with irregular sides when applying the ornament. Planing – at times with polish, of large surfaces where impressions were made at the same time or earlier of 'cords' – was one of the signs of impressing non-woven textiles, apart from cord itself.

Laboratory research was conducted at the Institute of Prehistory, Adam Mickiewicz University in Poznań, using a NIKON SMZ 800 (and 1000) stereoscopic microscope. In attempting to take into consideration the basic traits 'preserved' on the sides of vessels, over 1.000 measurements were made, which as it is, were underestimated. After the application of impressions, receptacles were dried, fired

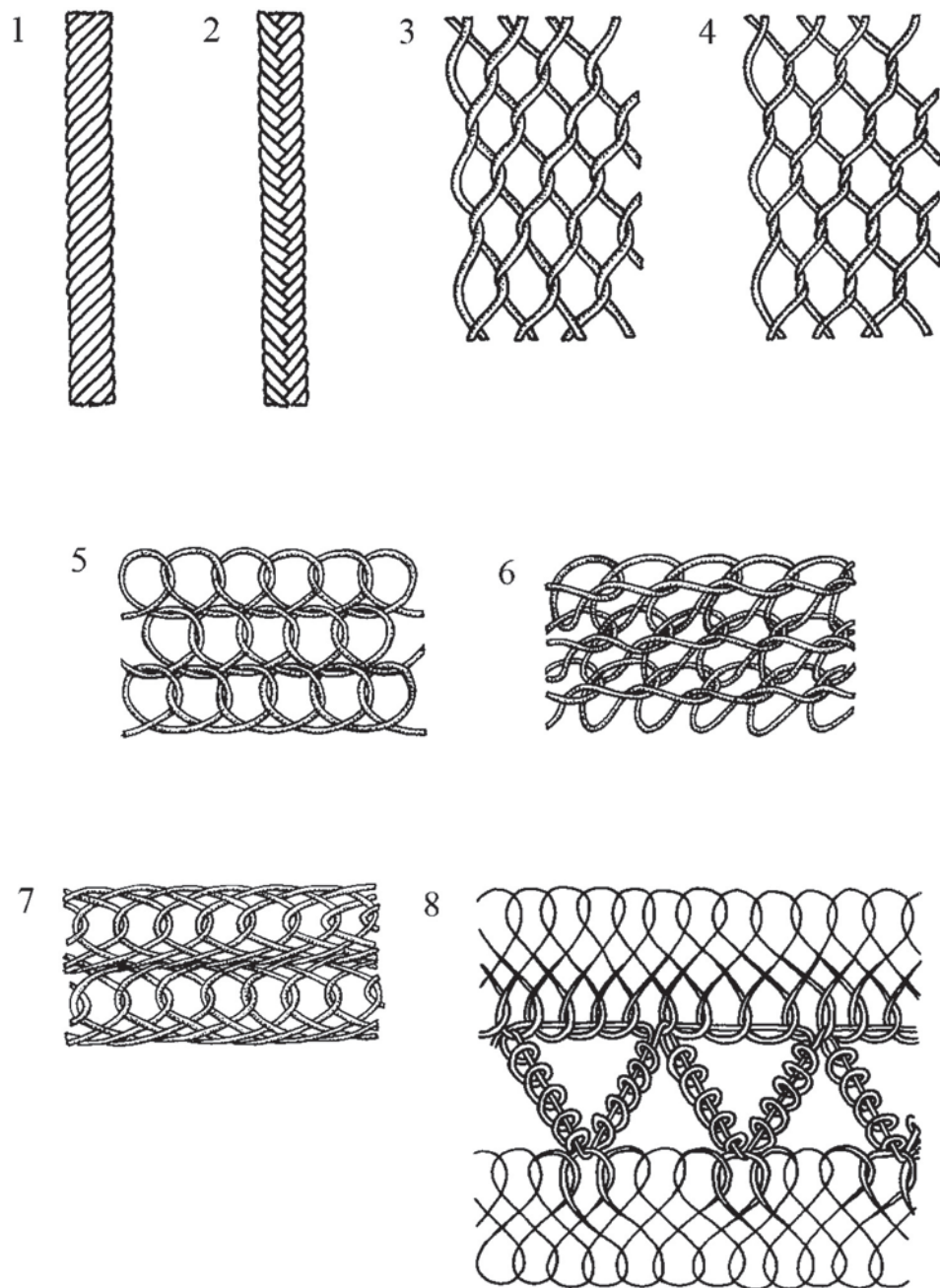


Fig. 1. Impressions of non-woven textiles on ceramic ware: turned cord (1), plaited cord (2), plain netting (3), elaborate netting (4), needlework (5, 7), 'hosiery' (6), turn-buckle 'triangles' (8), Drawing: O. Antowska-Gorączniak

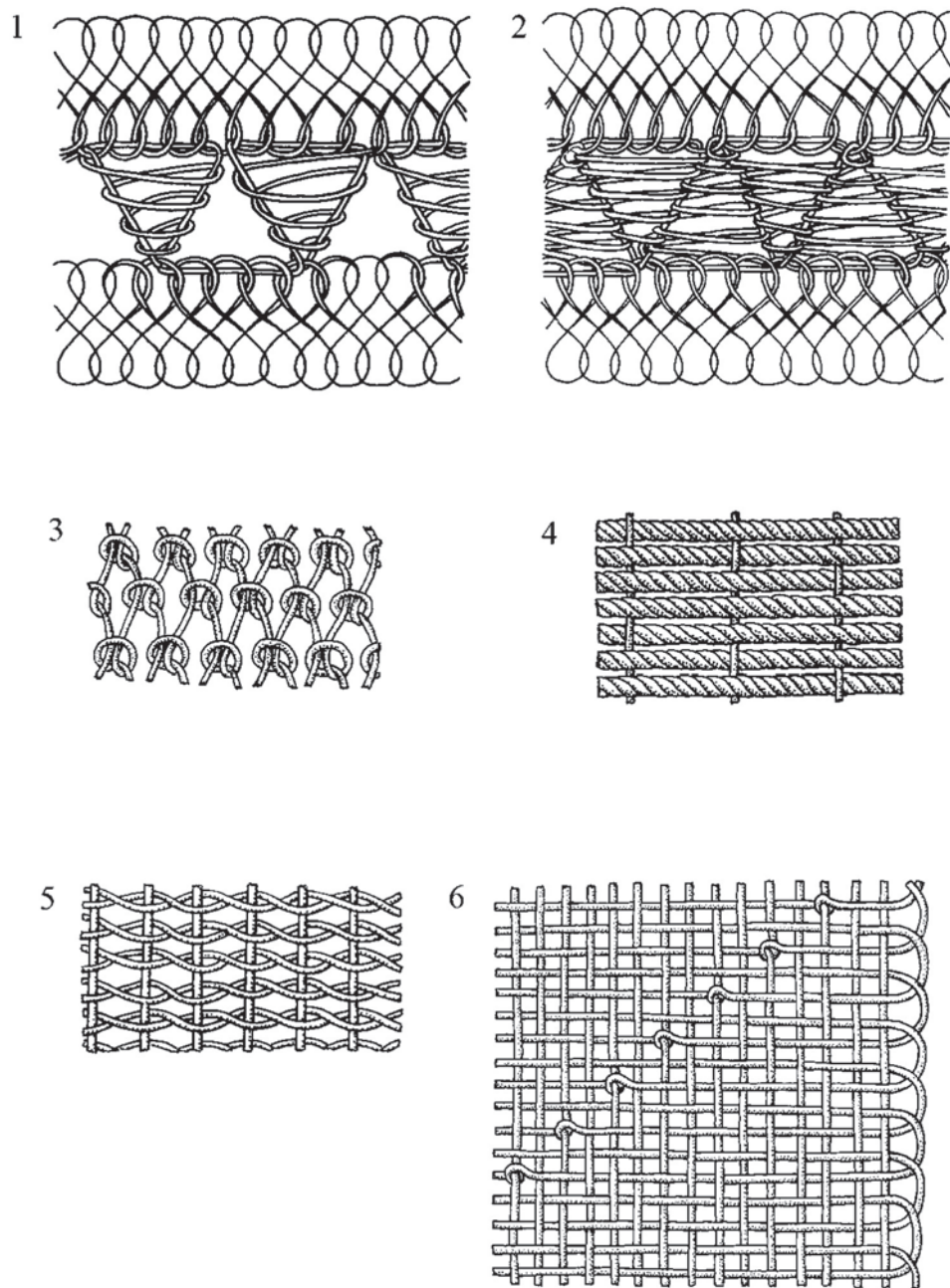


Fig. 2. Impressions of non-woven textiles on ceramic ware: full turn-buckle 'triangles' (1) and filled 'triangles' (2), macramé? (3), mat (4), basket plait (5), 'elaborate' plait (6), Drawing: O. Antowska-Gorączniak

(ceramic crust) and then put into use (surface abrasions of sides). To some degree, these traits not only ‘mirror’ the original’s fine design, but also the defects of textiles [Sikorski 2003:132].

In this context the following were taken into account: thickness of ‘readable’ textile negatives and string or yarn (thread/yarn) and their components (for multi-strand cord and yarn thread) as well as direction (Z and S) and the angle of textile turn in string or yarn (assessment of preparation and degree of exploitation – stretching, tensing). At the stage of applying a textile in the pottery, which is ready to be applied, the following outline has been attempted: an impressed non-woven textile, reconstruction of this technique (Fig. 1, 2), counting the number of plaits (turns) over 1 cm (the more plaits, the better the quality), width of textiles and finally, sequence and means of ornament application. Moreover, an identification was attempted of ‘production’ traces for non-woven textiles that were used during the formation of the block, planing of vessel surface or finishing touches in adhering artwork to such (as in the case of the ornamentation of vessel sides inside and outside).

Further, a series of impressions were made using plasticine (over a hundred) on the basis of which it was easy to identify and compare in the light of samples researched, the use of strings, plaits, needlework and others. In general, it should be noted that during research on ceramics, impressions of several non-woven textiles were identified as the data shows below.

Cord

1. Turned [twisted] (2 – strand), Fig. 1:1; Table 2: samples 5, 19, 22
2. Plaited, Fig. 1:2; Table 2: samples 4, 11, 21, 23, 30, 31, 38, 40
3. Wound, ‘traditional’ or ‘ornamental’ [Nahlik 1958:181, 182, Fig. 8], Table 2: sample 8

Sprang (Netting)

1. Simple, Fig. 1:3; Table 2: samples 2, 7
2. Elaborate, Fig. 1:4; Table 2: samples 16, 24, 26, 27

Needlework

1. Type I – II [Hald 1950:292; Turnau 1979: Fig. 1; Seiler-Baldinger 1994: Fig. 12a], Fig. 1:5; Table 2: samples 4, 9, 14, 18, 28, 32, 33, 41
2. ‘Hosiery’? [Seiler-Baldinger 1994: Fig. 40], Fig. 1:6; Table 2: samples 32, 36
3. Type III [Hald 1950:297-299], Fig. 1:7; Table 2: samples 3, 5, 33, 35–37, 42
4. ‘Turn-buckle’ ‘triangles’, Fig. 1:8; Table 2: samples 28, 32?, 34, 36
5. ‘Turn-buckle’ ‘full triangles’ assumed, Fig. 2:1
6. ‘Turn-buckle’ ‘filled triangles’ assumed, Fig. 2:2

Macramé? [Seiler-Baldinger 1994: Fig. 25], Fig. 2:3; Table 2: sample 1



Fig. 3. Contemporary needlework (sock). Photo: M. Sikora

Plaiting

1. Plain, including herring-bone [Podlewski 1960: Fig. 290], Table 2: samples 6, 25, 43–45
2. Plaited mat? – strings joined in a matrix?, Fig. 2:4
3. Basket [Podlewski 1960: Fig. 299], Fig. 2:5; Table 2: samples 10, 15, 32?
4. ‘Ornamental’, Fig. 2:6; Table 2: sample 17

Loops/knots/festoons [Seiler-Baldinger 1994:130ff], Table 2: samples 2, 11, 12, 30, 38

3. CONCLUSION

Obviously every outline of research findings in this context can be considered an attempt to draft potential turns (twists), braids and knots in ceramics. In no way



Fig. 4. Contemporary crochet work (glove). Photo: M. Sikora

does it, however, exhaust other, equally possible interpretations of impressions (i.e. sewing of cords as an ‘application’ over an underlay of material or non-woven textile). The group of plaited or needlework impressions is relatively large and cannot be placed into a specific category for the above discussion. It should also be noted that the impressions of mats or plaits [Lipińska 1963:309, Fig. 4, 5, 10-13; Łaszczewska 1966:22; Hensel 1980: Fig. 43, 56], although not ‘certain’ can be considered highly probable, producing (on vessel fragments most often found) regular horizontal or herring bone cord negatives [Fig. 2:4; Kamińska, Nahlik 1958:98, 222, Fig. 17, 43; Koško, Sikorski, Szmyt... – part 1, in this volume, Table 2: samples 43–45].

Moreover, of particular interest are negatives with ‘organic parts’ [Koško, Sikorski, Szmyt... – part 1, in this volume, Table 2: samples 6, 11, 12, 33]. This observation in fact can suggest the vessel was fired with a finished textile ‘adhered’ to it (if the impressions are not clogged with filling or layers in which crust had formed).

Finally, of particular significance is that the identified non-woven textiles did not require any complicated tools, though they proved to be more time-consuming and work-intensive than woven materials. It could be said that in fact the tradition of 'prehistoric' non-woven techniques has survived to this very day [Kaczmarek 1960; Podlewski 1960; Moszyński 1967:329ff; Turnau 1978; Seiler-Baldinger 1994; Michałowska 1995; Fig. 3, 4]. Moreover, these textiles were used and still are, during the adhesion and ornamentation of pottery vessel [Izak 1994]. Thus it is the intention that laboratory research and associate measurements will continue to be conducted, their results verified during the investigation – and as far as it is possible, compared with other textile-pottery elements in the Neolithic (tools such as whorls, loom weights, awls, needles, calenders and organic remains in objects.)

Translated by Ryszard J. Reisner

ABBREVIATIONS

- AP URSS – Arkheologiczni pamiatky Ukrainskoyi Radianskoyi Sotsialisticheskoi Respubliki. Kiev.
- BPS – Baltic-Pontic Studies. Poznań.
- KSIA – Kratkiye Soobshcheniya Instituta Arkheologii. Moskva.
- KSIA AN USSR – Kratkiye Soobshcheniya Instituta Arkheologii Akademiyi Nauk Ukrainskoy Sovetskoy Sotsialisticheskoy Respubliki. Kiev.
- MIA – Materialy i Issledovaniya po Arkheologii USSR. Moskva. Leningrad.
- SA – Sovetskaya Arkheologiya. Moskva.

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