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Textiles from the Avar graveyard Zwölfaxing II, Austria

The Avars were a nomadic people who invaded Europe in the 6th century AD and disappeared at the beginning of the 9th century AD, after their territory had been annexed to the empire of Charlemagne. The western border of the Avar region was situated in a territory that forms part of Austria nowadays (Lower Austria and Burgenland). There are many Avar graveyards with inhumation burials in this region, most of them containing textiles preserved in connection with metal objects. The first Austrian Avar textiles excavated in Sommerein and Leobersdorf were analysed and published by Hans-Jürgen Hundt (Hundt 1984 and 1987). More than 50 textiles from a graveyard near Frohsdorf were inspected by Natascha Müllauer in 2004. The results have not yet been published yet and hundreds of textile findings are still lying quietly in the archives, awaiting scientific analysis. This overview of the Avarian textiles from Zwölfaxing (site Zwölfaxing II, Burstynkaserne) hopefully will stimulate the interest and research about this group of early Medieval textiles.

In 1938-39 and 1998-99, the finds from 69 single graves, one double grave and a disturbed grave were excavated within the area of the Burstyn barracks in Zwölfaxing, Lower Austria, near Vienna (Grömer in print). The necropolis is dated to a period between the transition from the Early Avar to the First Middle Avar period and the transition between the Second Middle Avar and the First Late Avar period, i.e. from AD 625 to AD 710 according to absolute chronology. The finds of the disturbed grave further testify to the use of this necropolis up to AD 800.

The textiles from Zwölfaxing

In 22 inhumation graves of the Zwölfaxing II graveyard (71 in total), 43 different fabrics could be identified as mineralised fragments on metal objects. Most

of them are preserved on belt buckles, a few on strap-ends (*Riemenzungen*). In six graves, textiles were also recognised on other grave goods, like a hook, iron knives (both in male and female graves) and triple-winged arrow-heads, which are regarded as a typically male Avar attribute.

The textile remains on these artefacts are in most cases very small; sometimes just a few millimetres of the fabric survive. Furthermore, conservation treatment used to stabilise the objects has complicated the analysis of the textiles, and in only in 22 of the fabrics could the raw material be determined. The identified fibres are usually of vegetal origin, presumably flax. A few items showed the characteristics of animal hair (sheep wool). It should be noted that the woollen fabrics are usually coarser than the linen ones.

The Avar fabrics from Zwölfaxing are generally characterised as fine linen tabbies, woven in single yarn, 0.2-0.3 mm thick and z-spun (Fig. 1). A few tabbies are woven with combined spin-directions, i.e. z-spun yarn in one and s-spun yarn in the other system. Plied yarn (S-plied) was found only in one case in the warp of a rep band, which was wrapped around an unidentified iron object found next to a reflex arch in the male grave 51. Basket weave and half basket weave were also identified. No twill fabric was found at Zwölfaxing.

It is also worth noting that there are only very few coarse or ribbed tabbies. The coarsest textile is a woollen tabby in 0.7-1 mm thick z-spun yarn with 6-7 threads per cm. Interestingly, it was located on the front side of a belt buckle in male grave 70; on the same object a fine basket weave was found as well. The Avar fabrics usually have a flat, smooth surface. Very seldom any kind of patterning of fabrics could be registered. Thus, two textiles/pieces from grave 15 and 71 have been woven with alternating single and

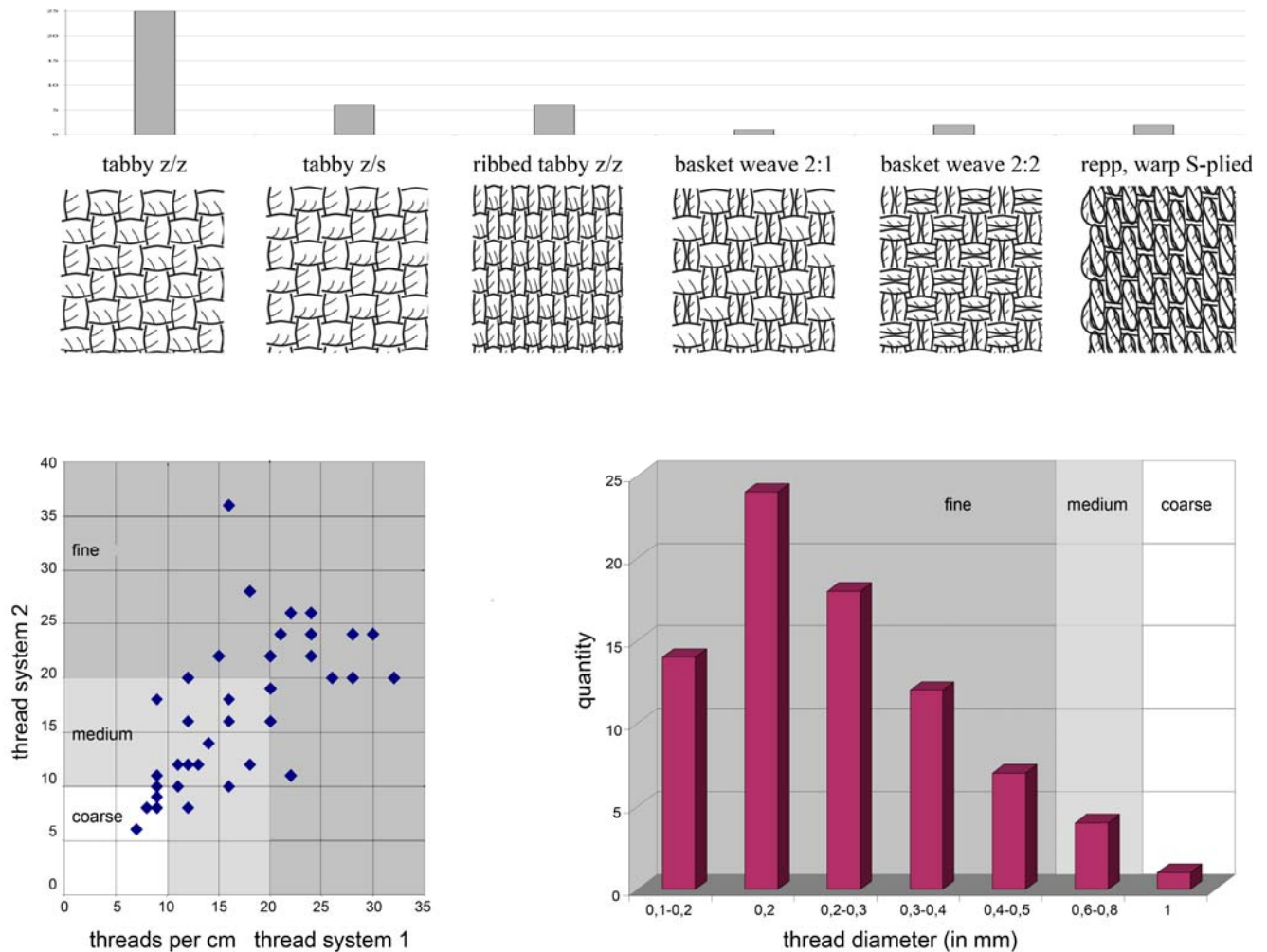


Fig. 1. Zwölfaxing II: weave types, thread count and yarn diameter (© K. Grömer).

plied or paired yarns in one-thread system. The fragments however, are too small to detect a regular pattern.

The most interesting find is a small, fine, multi-layered, linen tabby (in 0.3 mm thick z-spun yarn, thread count 12/16 per cm) preserved on a ring-shaped iron belt-buckle from male grave 46. The upper layer has floating threads forming a rhomboid pattern (Fig. 2). Due to heavy mineralisation, it is difficult to determine the patterning technique: the rhomb-pattern may have been created by floating threads in the weave or, alternatively, by embroidery. In grave 14, a layer of fur could be detected over a fine linen tabby. Unfortunately the grave was looted, and as the artefact was not found *in situ* no further conclusions can be made.

Interpretation

The Avar fabrics from Zwölfaxing were found in graves of males, females and juvenile males. At first glimpse the fabrics - usually uniform, fine tabbies -

were assumed to be shrouds, but the micro-stratigraphical analysis has demonstrated that most of them were actually parts of clothes (Fig. 3). For both sexes a fine undertunic made of fine tabby seems to be common. In most cases the weaves were found corroded on belt-buckles (front and back side) and sometimes strap-ends, *in situ* on the waistline of the deceased; sometimes folded and multi-layered parts could be identified (Fig. 4). This implies that the garments were wide, and gathered and held in place by a girdle. Furthermore, it is likely that the small buckles were part of a belt for the undertunic.

Avar iconographic representations of human figures are not very common and usually it is warriors that are depicted. Examples include the golden vessels of the Sínnicolaul Mare (=Nagyszentmiklós) treasure (*Ausstellungskatalog* 1996, 441; 2002, 25) and the agrafes from Mödling-Goldene Stiege (*Ausstellungskatalog* 1996, 300), as well as various strap-ends from Hungarian sites (Fettich 1937; Erdélyi 1966, Tab. 9). The male figures in these representations usually wear trousers,

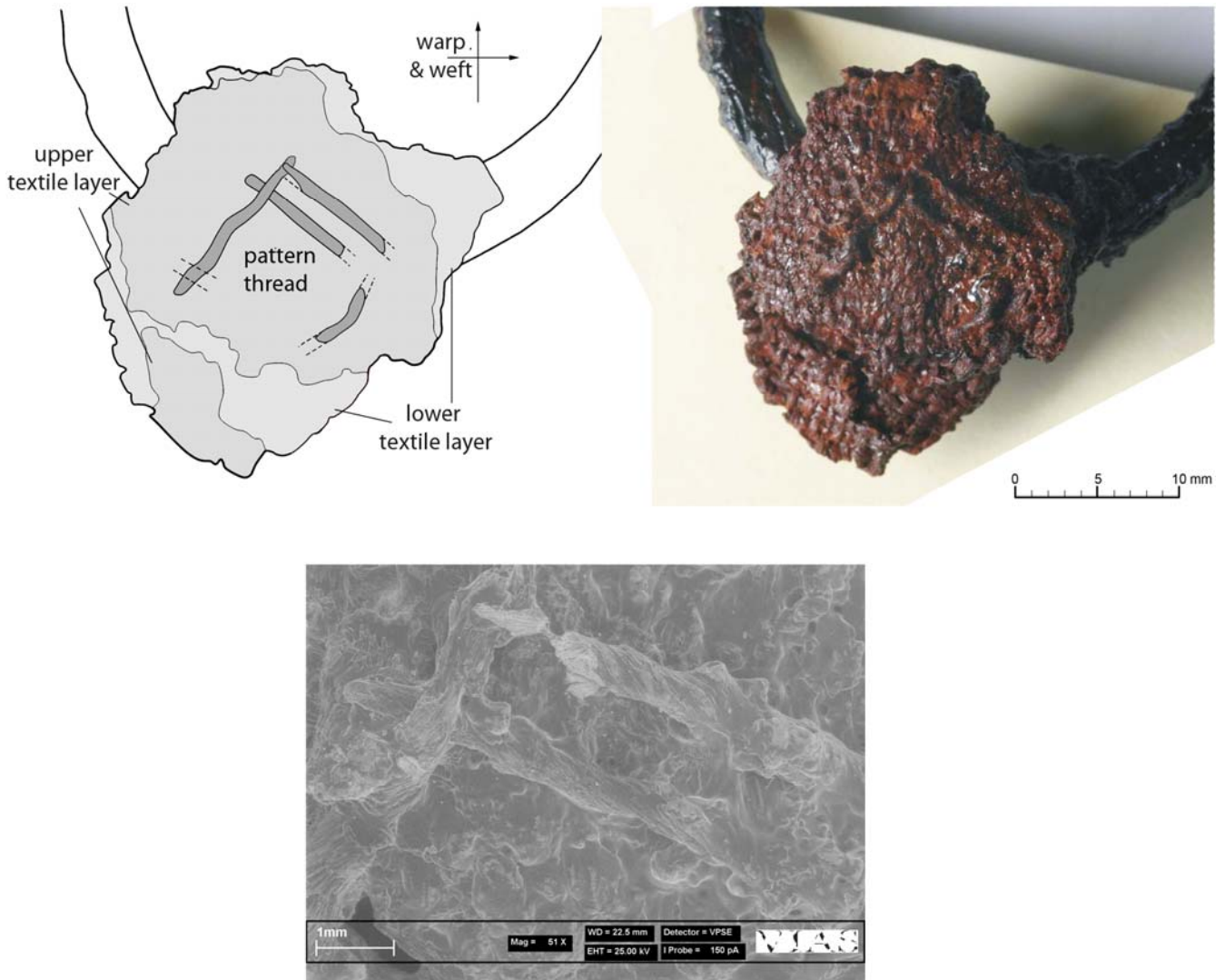


Fig. 2. Zwölfaxing II: patterned textile from grave 46 (© K. Grömer and M. Kucera, VIAS).

types textile	costume component				grave goods		
	belt buckles over	under	both sides	strap ends	knife	arrow head	others
fine tabby > 20 threads		1	8	1	1	1	1
medium tabby 10-20 threads	3	3	1	1	3		1
coarse tabby 1-10 threads	3				1	2	1
ribbed tabby, repp	1		1			2	1
basket weave fine	1		2				

Fig. 3. Zwölfaxing II: costume components and grave goods with different textile types (© K. Grömer).

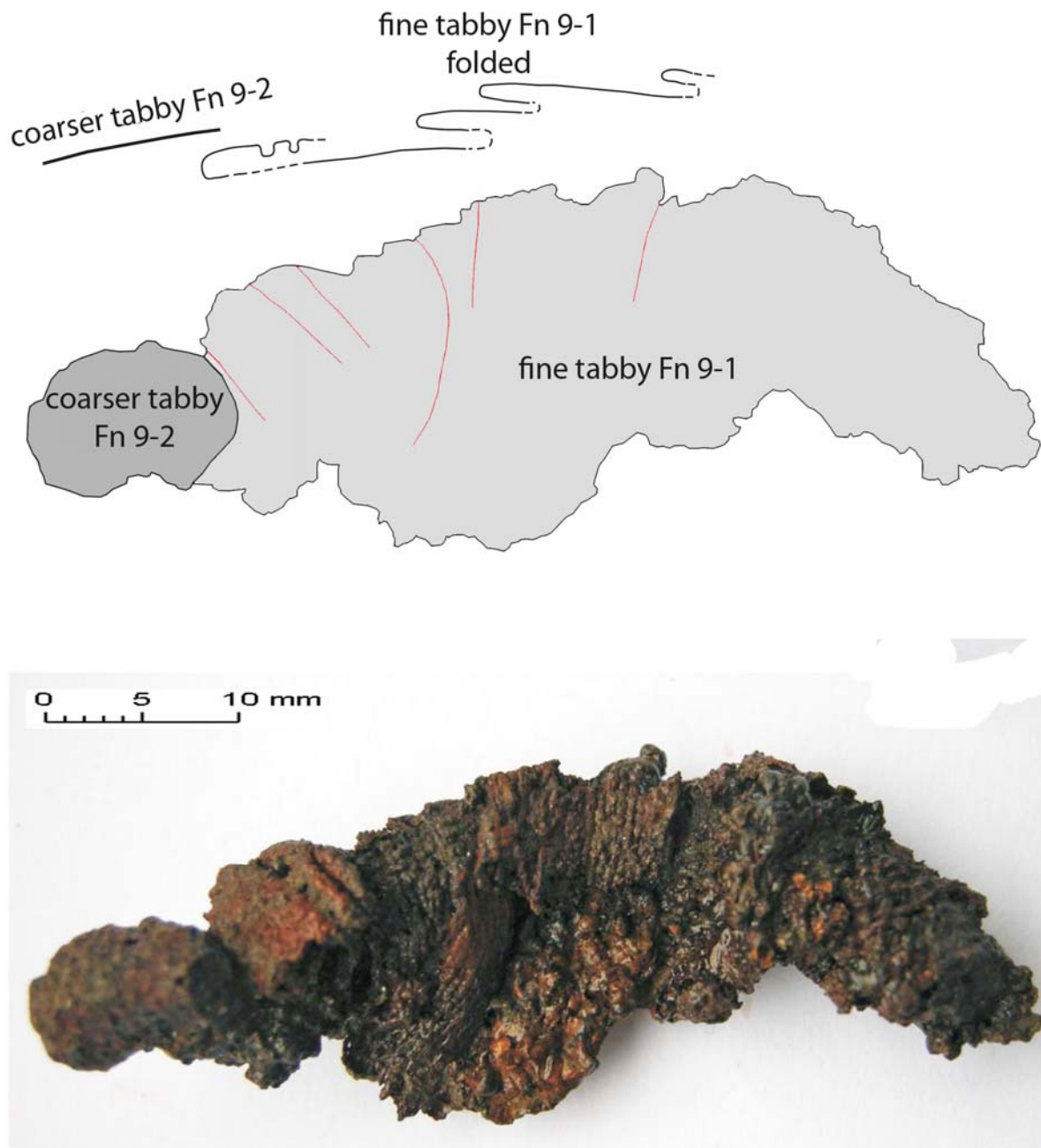


Fig. 4. Zwölfaxing II: belt fragment from grave 12 with different folded textiles (© K. Grömer).

sometimes leg-wrappers and waist- to knee-long caftan-like overclothes (Sinnicolaul Mare, vessel no. 7; Hungarian strap-ends e.g. Egyházaskér). In some cases (Sinnicolaul Mare, vessel no. 2 and agrafes from Mödling), the depictions of the garment covering the upper part of the body are patterned in a specific way, suggesting that this pattern represents armour.

In general, the iconography indicates that Avar male clothing was multi-layered, with an undertunic and a caftan-like overcoat. It is likely that this combination is also present in the graves from Zwölfaxing, as indicated by the micro-stratigraphical analysis of three different graves (15, 46 and 70). When several layers are preserved, a fine linen cloth is usually found clos-

est to the body, while a second, different, and sometimes, coarser cloth is placed over this, like in the above-mentioned male grave 70. The fine basketwoven textile is interpreted as an undertunic, while the coarse fabric is interpreted as part of an over-tunic or a caftan. A similar interpretation seems to be applicable in the case on male grave 15.

As the fabrics are also found on other objects besides costume accessories, they are sometimes identified as wrappings. However, in graves 46 and 70, the textiles found on the arrow heads, placed close to the arms of the bodies, were similar to those found on the belt-buckles and it is most likely that all the textiles were parts of the costume.



Fig. 5. Image of Avar male costume by Helga Mautendorfer.

Avar textiles in context

The fabrics found in Avar graves in Austria and Hungary show a very simple repertoire: plain tabby dominates (pers. com. Lise Bender Jørgensen), while basket weave and rep are rarely found. Only two of the more than 120 analysed Avar textiles from Austria (Sommerein, Leobersdorf, Frohsdorf and Zwölfaxing) are made in twill. As demonstrated by the analyses of the materials from Zwölfaxing, the textiles are quite fine. A similar picture is known from textiles found in graves of the Austrian Roman Period. However, these Avar textiles differ markedly from the contemporary Alamannic and Bajuvarian textiles, among which twill fabrics of different variants, such as *Rippenköper* or *Kreuzköper*, are more common (Bender Jørgensen 1992, 68ff, 110ff).

Two different interpretations can be offered to explain the differences between the textiles of the Avars and those from other contemporary tribes in Upper Austria and South Germany. The first lies in the fact that, not only do the tabby textiles differ from those of the contemporary (7th century AD) tribes in the west and north, but also we find almost no loom weights in these Avar settlements. It is possible that the Avars – who were equestrian people, originating in the Cen-

tral Asian steppe – had different production techniques, possibly based on a two-beam loom. This loom, which can easily be used for weaving simple weaves with one heddle rod, is more transportable and therefore would have been convenient for the nomadic lifestyle of the Avars. Another possible explanation for the Avar preference of tabbies could be the local influence. Eastern Austria forms the western border of the huge Avar Empire, where Avars mixed with local populations. The predominance of tabby and its variants may reflect the surviving traditions of the inhabitants of the Roman Province Noricum, which were inherited by the Avar people.

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