

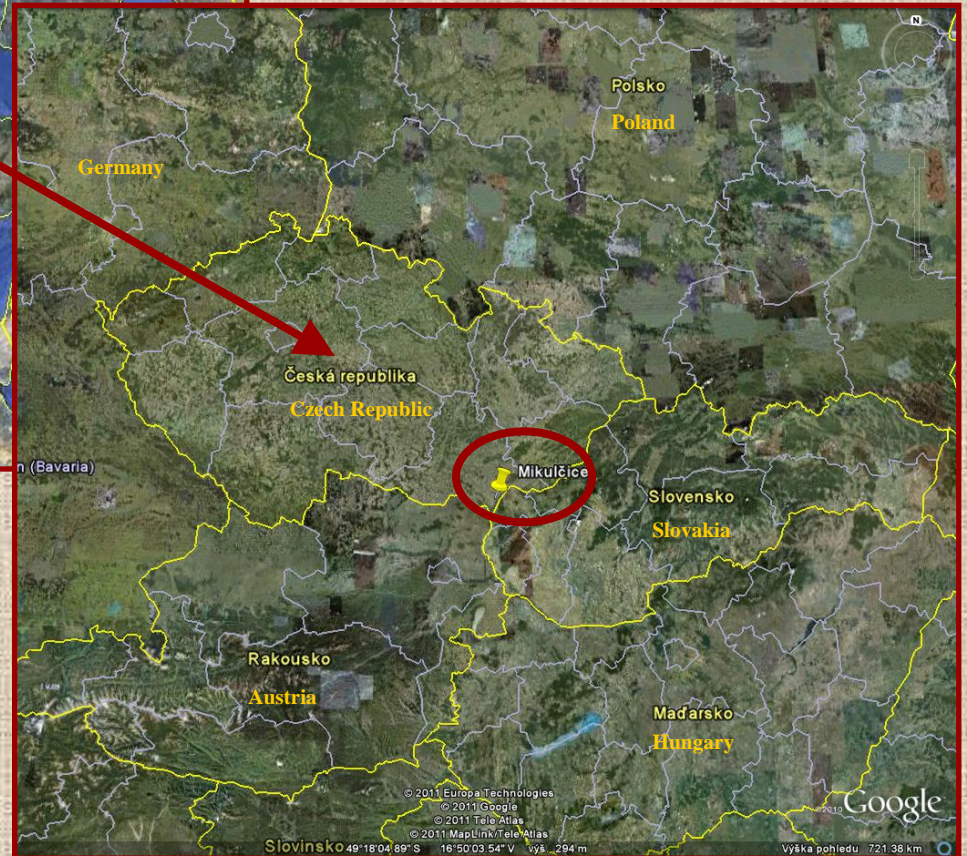
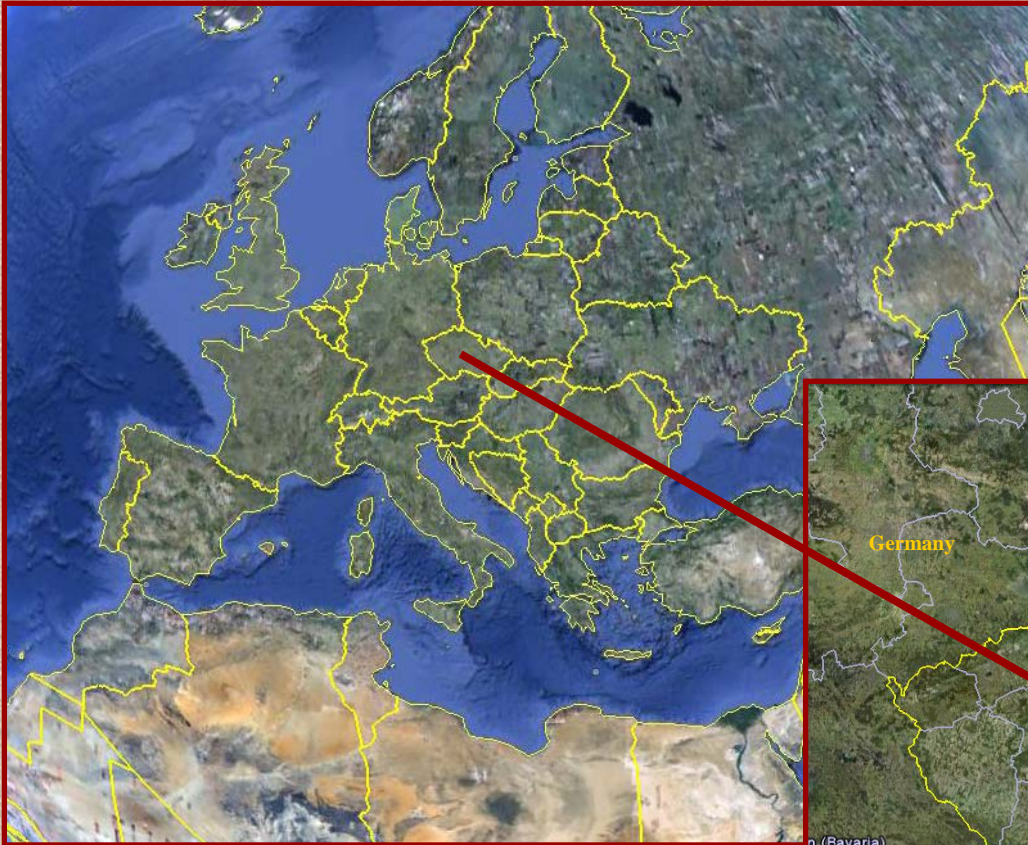


Finds of textile fragments  
and evidence of textile  
production at a major  
excavation site of the  
Great Moravia  
in Mikulčice

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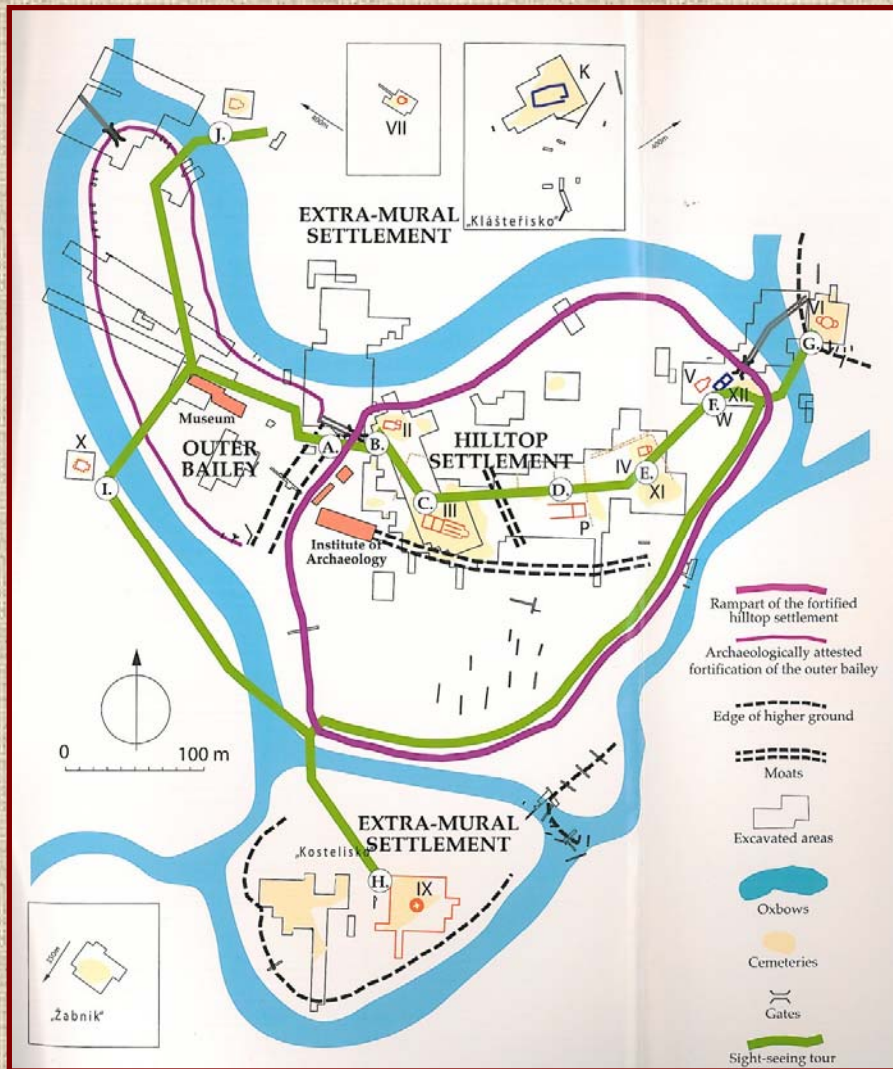
# Mikulčice



**Czech Republic**  
**South Moravia**

# Mikulčice

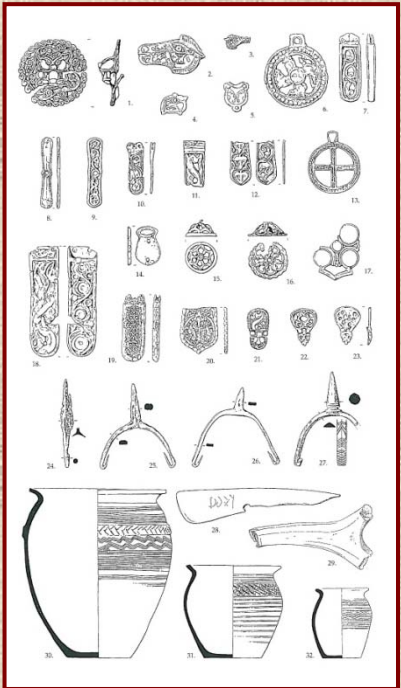
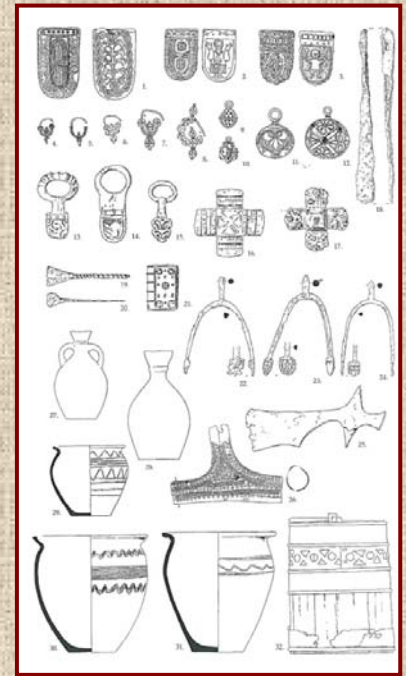
## A settlement of the Great Moravia



- a large and exceptionally well preserved excavation site for the Great Moravia in the 9th to 10th centuries

- a settlement agglomeration – an acropolis, a fortified inner bailey, an unfortified outer bailey, lords' farmsteads, burial sites, and rural settlements

# The Mikulčice finds

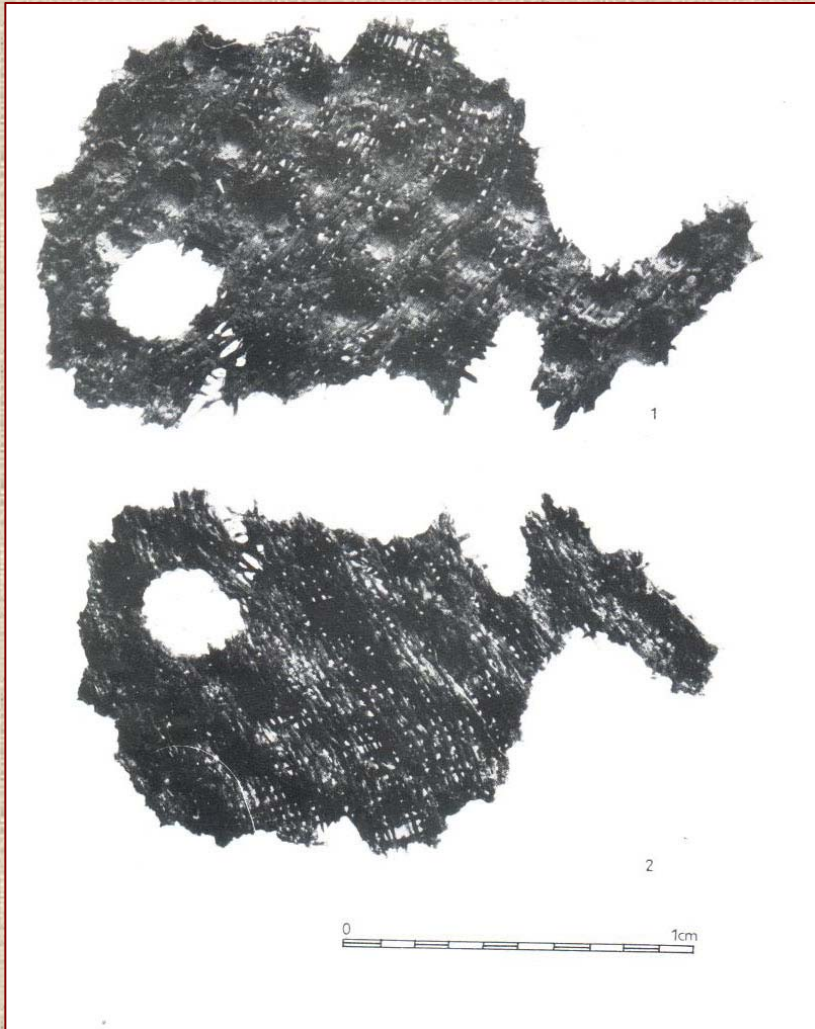


# Fire at the Mikulčice research base

- **September 2007**
- **the fire destroyed the depository, the finds and documentation**
- **objects made of ceramics, iron, bronze and bone destroyed**
- **the most precious finds rescued at a strongroom outside the location**
- **organic remains on surface of the finds destroyed**



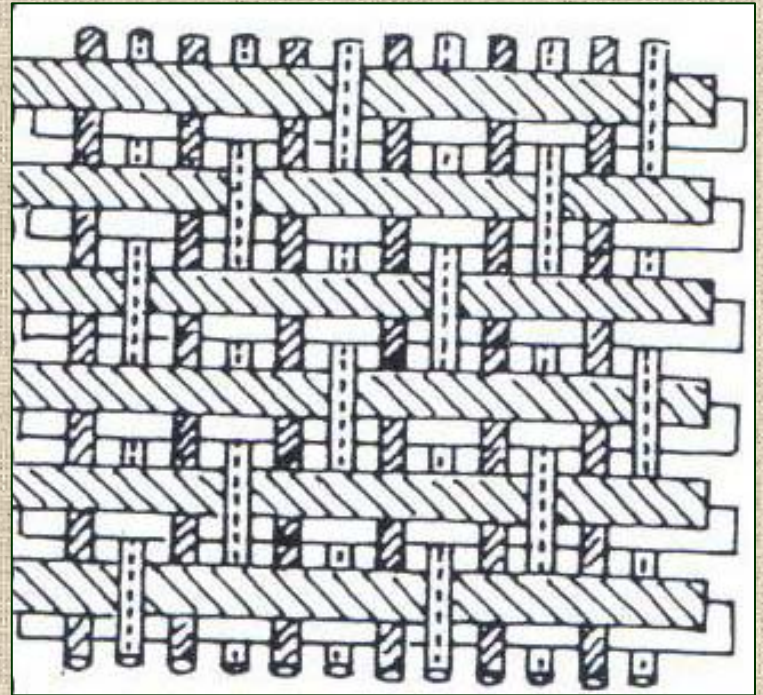
# Processing of preserved textile fragments



- Marie Kostelníková
- 1970s through 1990s
- analyses of textile remains from the Great Moravia excavation sites
- textiles from the Mikulčice acropolis and outer bailey – a total of 92 textiles

# Textiles from the central settlement

- fabrics in tabby weave and twill – typical products of local textile craft
- 11 fabrics with a complex weave with two warps (main and binding) and two or more wefts bound to the binding warp – *samitum* (weft-faced compound twill)
- silk, flax
- present in rich graves, imported goods, evidence of long-distance trading with luxury fabrics for the nobility



# Current state of processing of textile fragments from Mikulčice and the surrounding areas

5 locations, burial sites with skeleton remains,  
9th to 10th centuries

- **Outer bailey:** Kostelec, Kostelisko
- **Backbone of the central settlement:** Panské, Josefov
- **Surrounding areas of the central settlement:** Čejč



- analyses and assessments done in the period 2000 - 2009
- 244 different textiles identified



# State of preservation of textile fragments

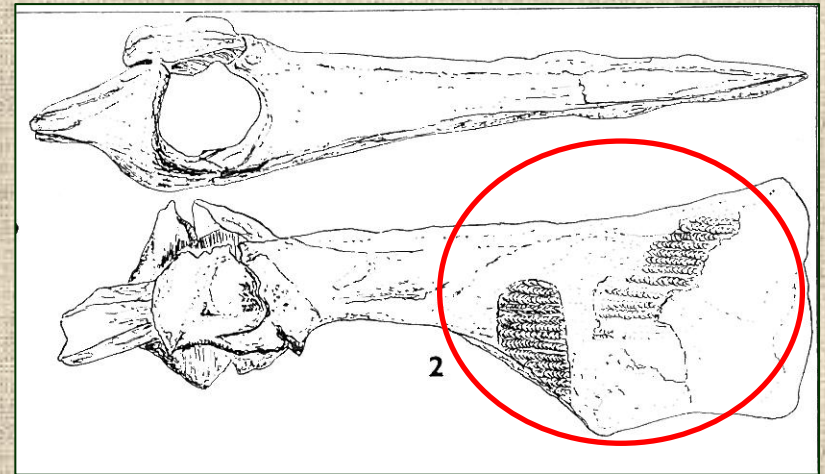
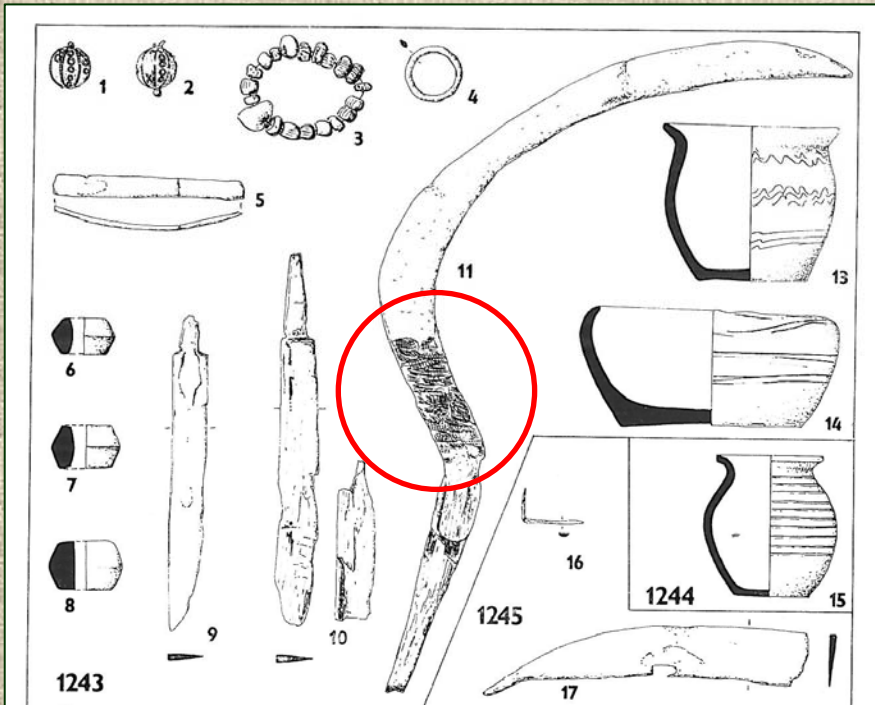
- textile fragments of a very small size
- different layers on the surface of metal objects
- textile remains full of corrosive products



# Kostelec, Kostelisko

- **Kostelisko**
- southern outer bailey of the Mikulčice central settlement
- 88 different textiles

- **Kostelec**
- northern outer bailey of the Mikulčice central settlement
- 14 different textiles



# Panské, Josefov

- Panské
- closest to the Mikulčice central settlement  
4 km to north-west
- 59 different textile remains

- Josefov
- closest to the Mikulčice central settlement  
8 km to north-west
- 42 different textiles



# Čejč

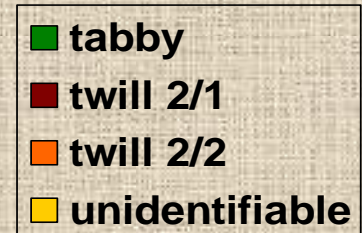
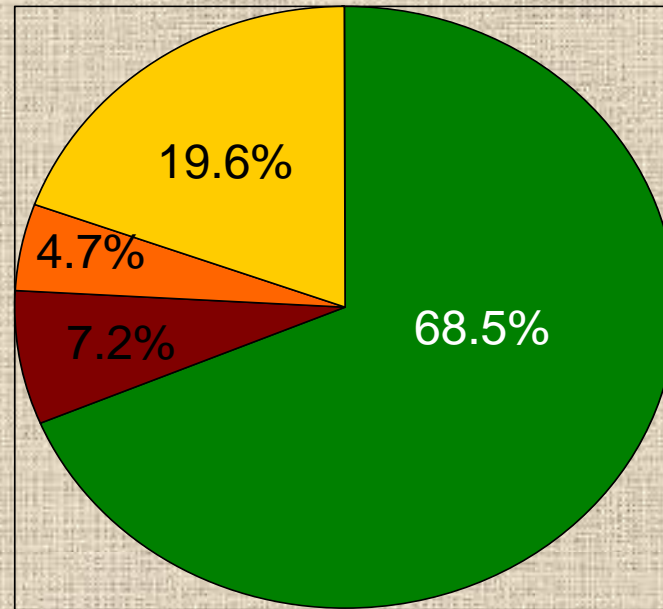
- area of rural burial sites;
- 25 km to north-west
- **55 different textiles**



# Weaves

- 235 woven fabrics
- 9 separate thread with no binding or strings

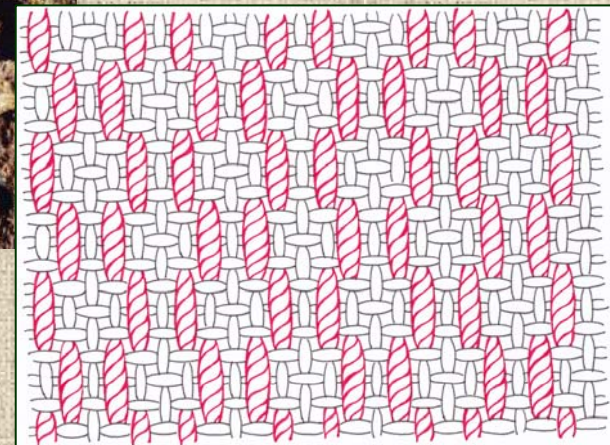
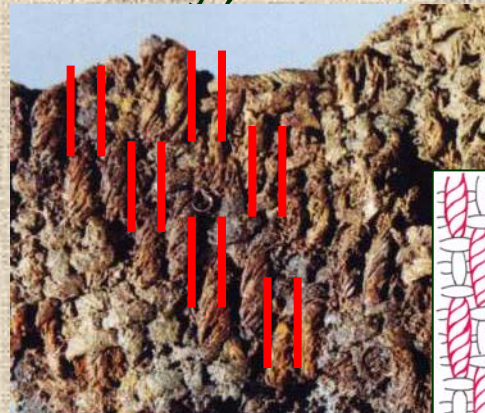
- tabby weave (161 pieces)
- twill 2/1 (17 pieces)
- twill 2/2 (11 pieces)



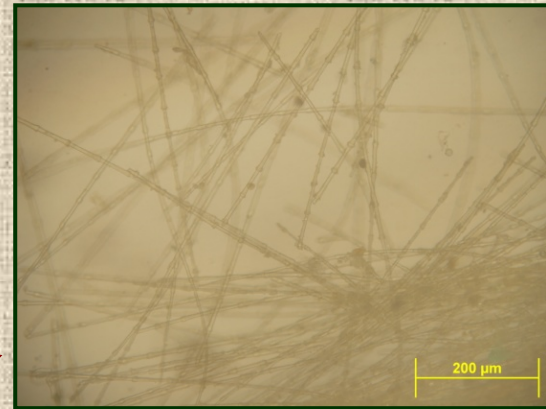
- 14 patterned fabrics
- weaves of the samitum type have not been found

# Patterned fabrics

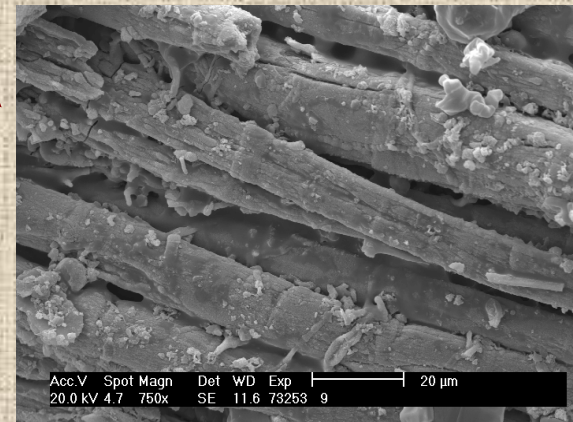
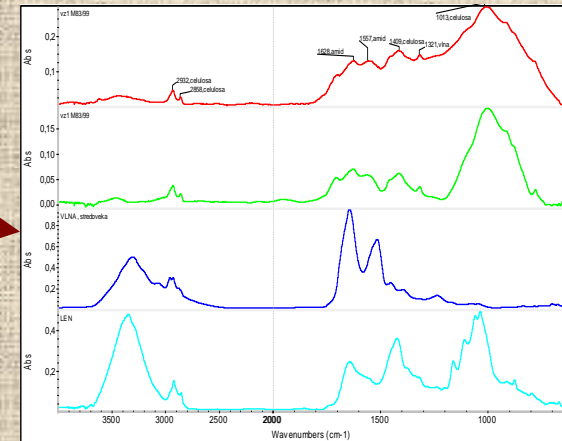
- patterned fabrics with small-size geometric patterns in the shape of lozenge made of pairs of thicker patterning yarns
- 14 pieces (6 from Kostelisko in the outer bailey)
- tabby weave of the foundation cloth
- thicker, frequently twisted threads; plastic patterns
- creating a pattern during weaving (broché fabric) or on a finished textile (embroidery)



# Identifying textile material



- microscopic observation of the cell structure of fibers
  - infrared spectroscopy
  - electron microscopy
- 
- successful only for 21 fabrics
  - fibers mostly of vegetable origin, probably flax (*Linum usitatissimum*)



# Presence of objects with textile remains

- total of 251 objects made of iron or bronze
- spur assemblies
- penknives, knives, axes, buckles, fittings of buckets, buttons, bells, jewelry, sharpening steels, fittings, spears, swords



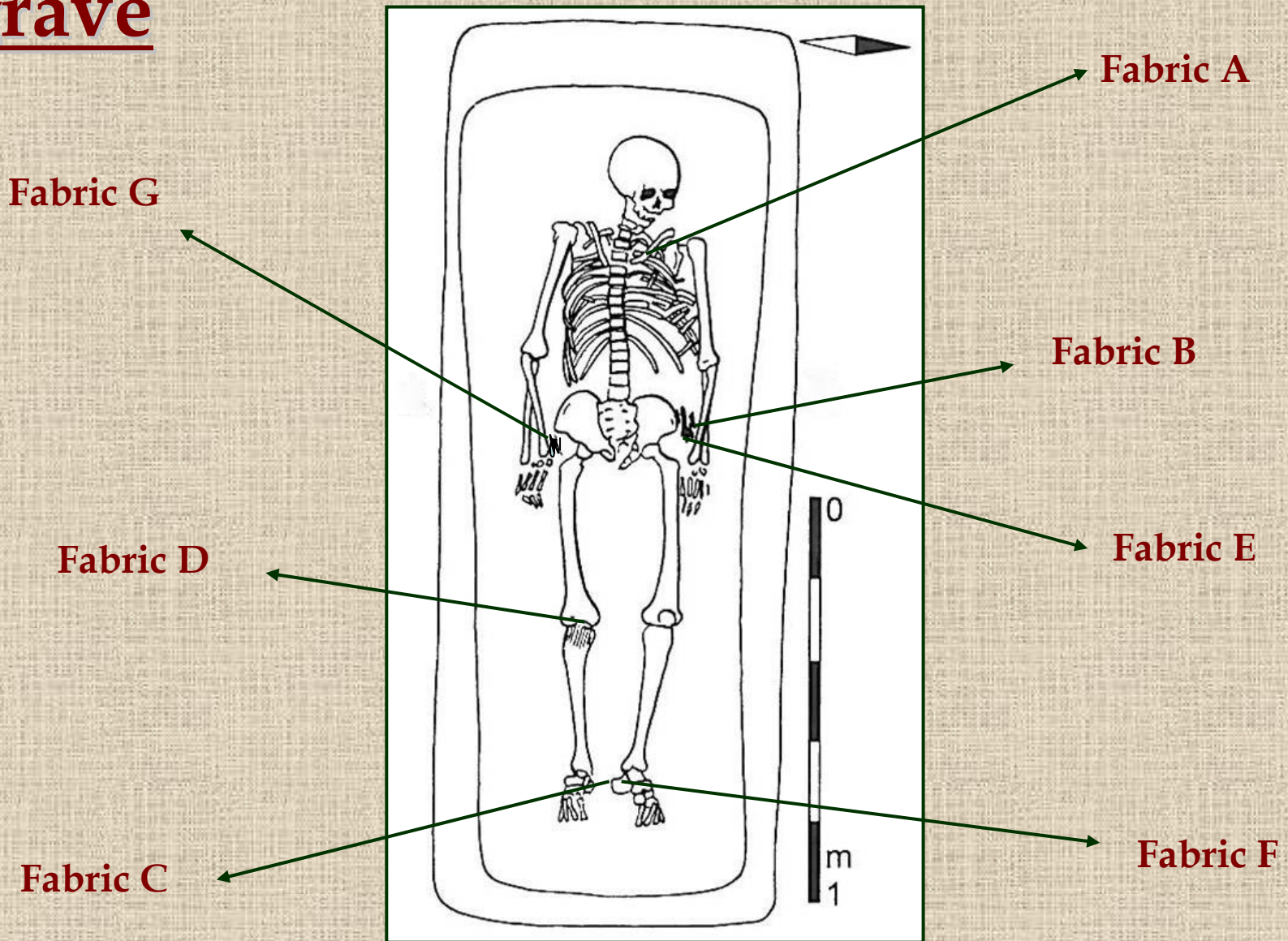


# Interpretation of original function of textiles

- analyzing the textile's position on each object
- wrappings of tools, precious weapons or object of daily use
- remains of clothes
- textile decoration of wooden sheaths
- textile wrapping of sword handles
- textile covering of buckets

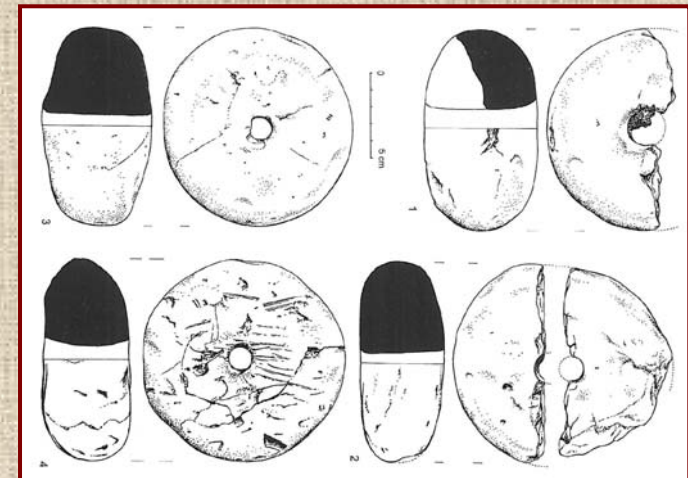
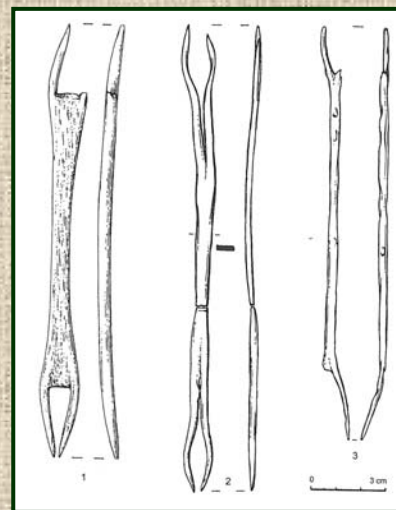
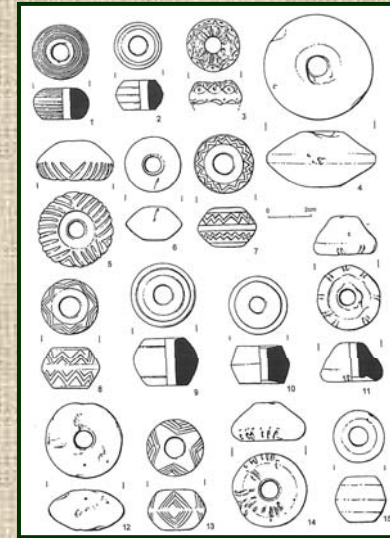


# Number of different textiles in a single grave



# Evidence of textile production in Mikulčice

- Spindle whorls (over 2,000 pieces)
- Spindle (1 piece)
- Weaving weights (50 pieces)
- Net needles (5 pieces)



# Thank you for your attention



Drawing: L. Balák.