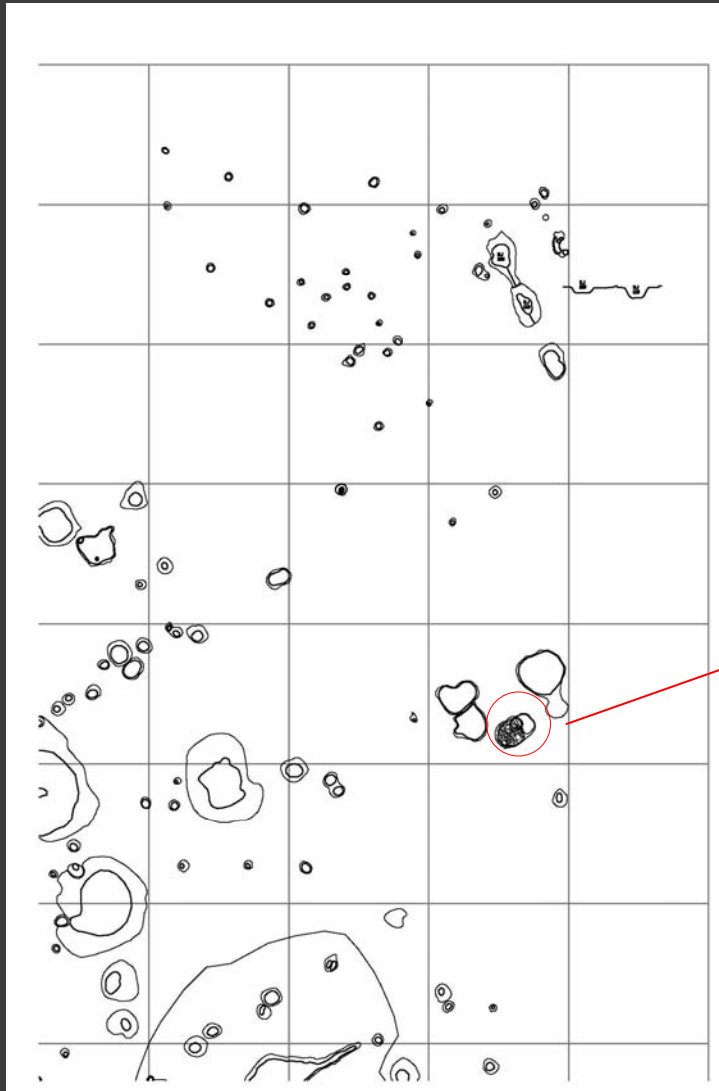
A photograph of a pottery kiln, showing several dark, rounded pots (possibly jars or vessels) arranged inside. The kiln is lit with a fire, visible as a bright orange and yellow flame on the left side. The pots are dark, possibly black or dark brown, and have a smooth, rounded shape. The background is dark, suggesting the interior of the kiln. The text "POTTERY KILN, OR A REFLECTION OF THE SPIRITUAL EXPRESSION OF BRONZE AGE POTTERS" is overlaid in the center of the image in a light blue, sans-serif font.

**POTTERY KILN, OR A REFLECTION OF THE
SPIRITUAL EXPRESSION OF BRONZE AGE POTTERS**

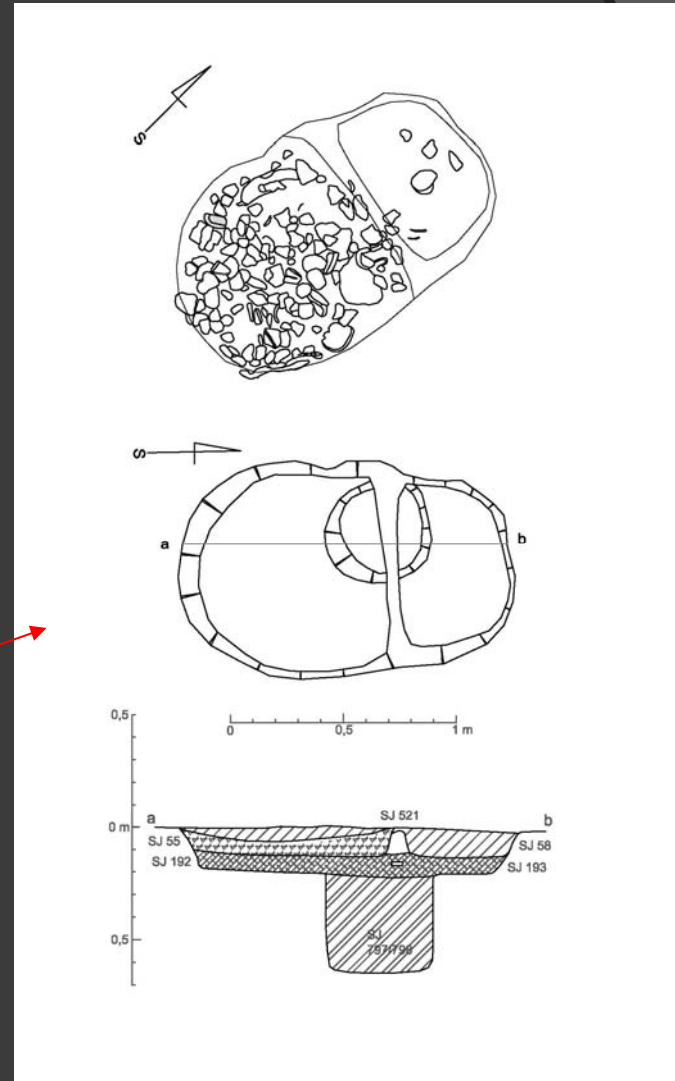


- Map of Croatia and location of site Velika Gorica - south

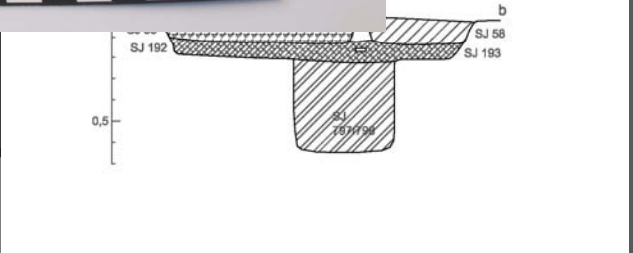
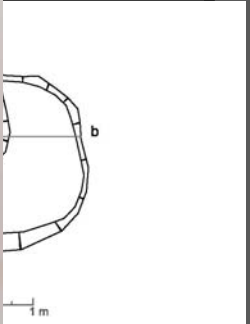
- Ground plan of Bronze age settlement Velika Gorica-south (Burmaz; Bugar 2006)



Location of presumed pottery workshop



Pit 14

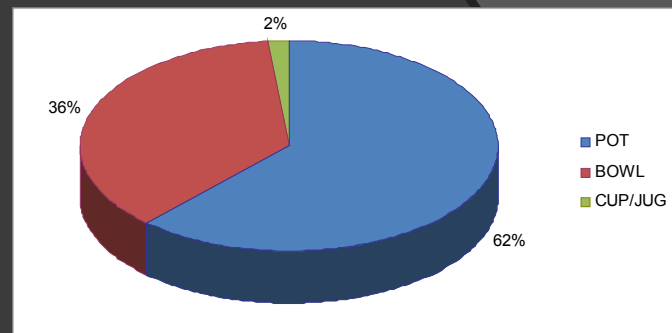


PIT 14
(Burmaz; Bugar 2006)

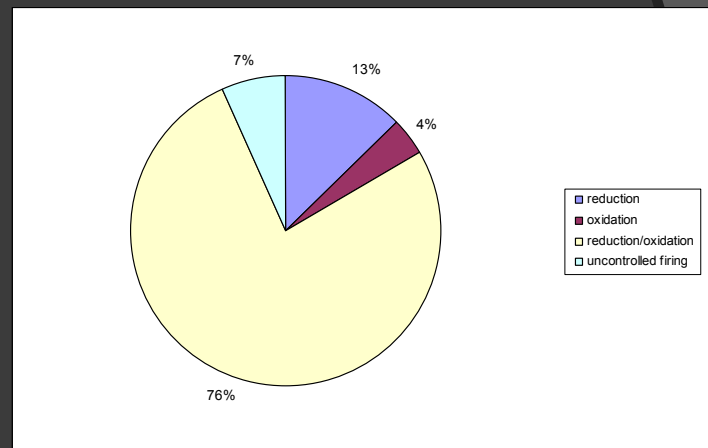
Content from the pit:

Movable finds:

- Ceramic fragments (31 kg)
- Stone
- Daub (0,7 kg)
- Layer of soil with a lot of coal



the representation of various types of vessels

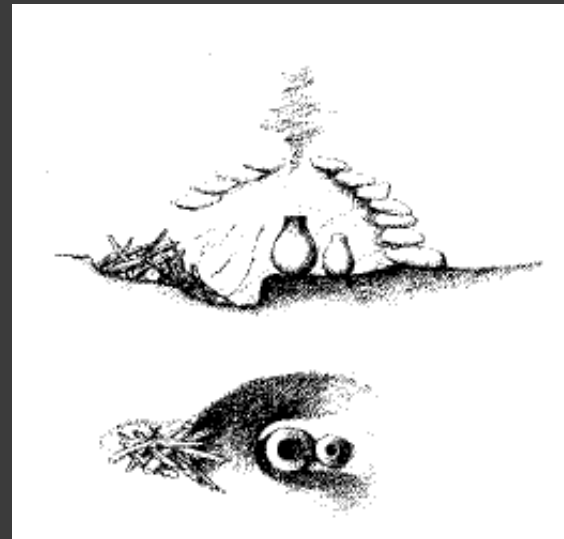
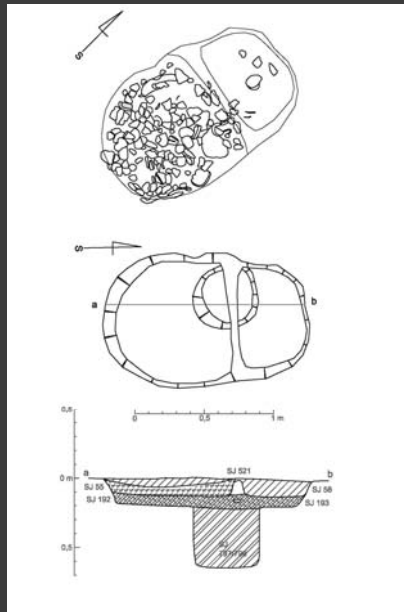


way of firing measured on all pottery fragments



Why pottery kiln?

- an unusually large amount of ceramic waste concentrated in a small area suggests a connection with the pottery workshop and can be interpreted as a potter's waste.
- distribution of the fragments, and also the shape of the pit, with a special emphasis on the clay barrier, suggests that it could have had a function as a kiln. Fragments look like as they were originally arranged in a (kind of above ground) dome and their position is a result of the dome collapse. Cuomo di Caprio mentions early domes of similar construction: "*Temporary domes were used when the heap of pots was rounded off and covered with sherds first and then with a layer of clay to avoid loss of heat.*" (Cuomo di Caprio 1978/1979:23).
- The hole in the middle part of the pit could have had a role of the stocking /combustion chamber. The biggest problem is that there is no trace of burning, such as burnt soil.
- According to examples from the literature, and the mentioned pit 14, I tried to reconstruct how the kiln could have functioned. Here's how the kiln was designed:



Dreus G. 1978/79: 34 (fig.5)

Experiment number 1



Experiment number 2



Experiment number 3 (Friday, the 13th)



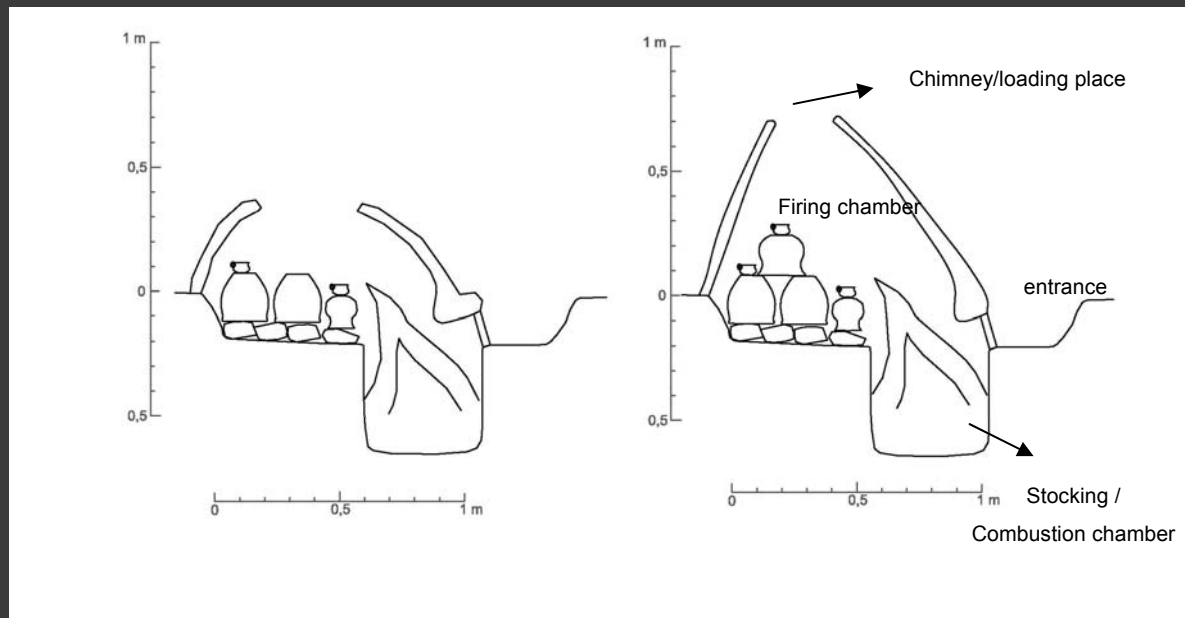


..... morning after



Conclusions:

- ⦿ the combustion chamber works perfectly, and after it is full, only dry branches are needed to rise the temperature
- ⦿ the furnace walls are burnt to 2 cm thick
- ⦿ the area above the combustion chamber (clay barrier) is partially burnt
- ⦿ clay barrier represents a sort of shortened stoking chamber and it supports the dome
- ⦿ feature of this kiln - low fuel consumption



experiment number 2 and 3

Interpretation

Movable objects:

- The amount of pottery in this pit stands out in relation with other pits from the settlement.
- Ceramic fragments look like as they were arranged in a kind of dome above ground, and their position is a result of the dome collapse
- Ceramic fragments are mostly recycled, except in the case of mass (industrial) production, which here is not the case.
- The nature of the ceramic material is closely related to recycling (Deal 2005: 22,23) and is rarely found in this context. It can be used as grog which is confirmed with other pottery sherds from this settlement that contain a large amount of grog in ceramic. Sherds could be used as a construction material of the dome.
- This kind of waste can suggest a connection with the potters workshop.

Static structure:

- The shape of this pit may function as a kiln which is confirmed by experiment. The problem is the lack of fire remains.
- Experimental kiln was dug into the clay soil. But originally pit was dug in the gravel layer, below which was the layer of sand. In this original situation the consequences of burning are more difficult to materialize (it would be necessary to make experiment under the same conditions to confirm this for sure).

Traces of action:

- Ceramic fragments are stacked in the pit, not thrown
- It seems that the pit content was the result of a single event, when this content was laid in the pit and sealed.



Another possible interpretation:

Ceramic deposit

- Ceramic deposit is a closed unit in which a quantity of pottery (whole vessels or fragments of the vessel) is stored, and often accompanied by various objects: stone, metal, the remains of food (wheat, animal bones, daub, parts of architectural units...
- Deposits of pots are known from various contexts and locations in central and eastern Europe (Harding 2000: 331).



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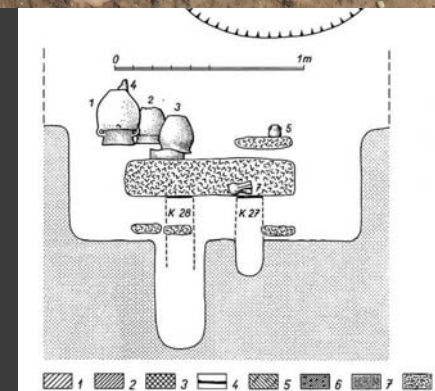


Some

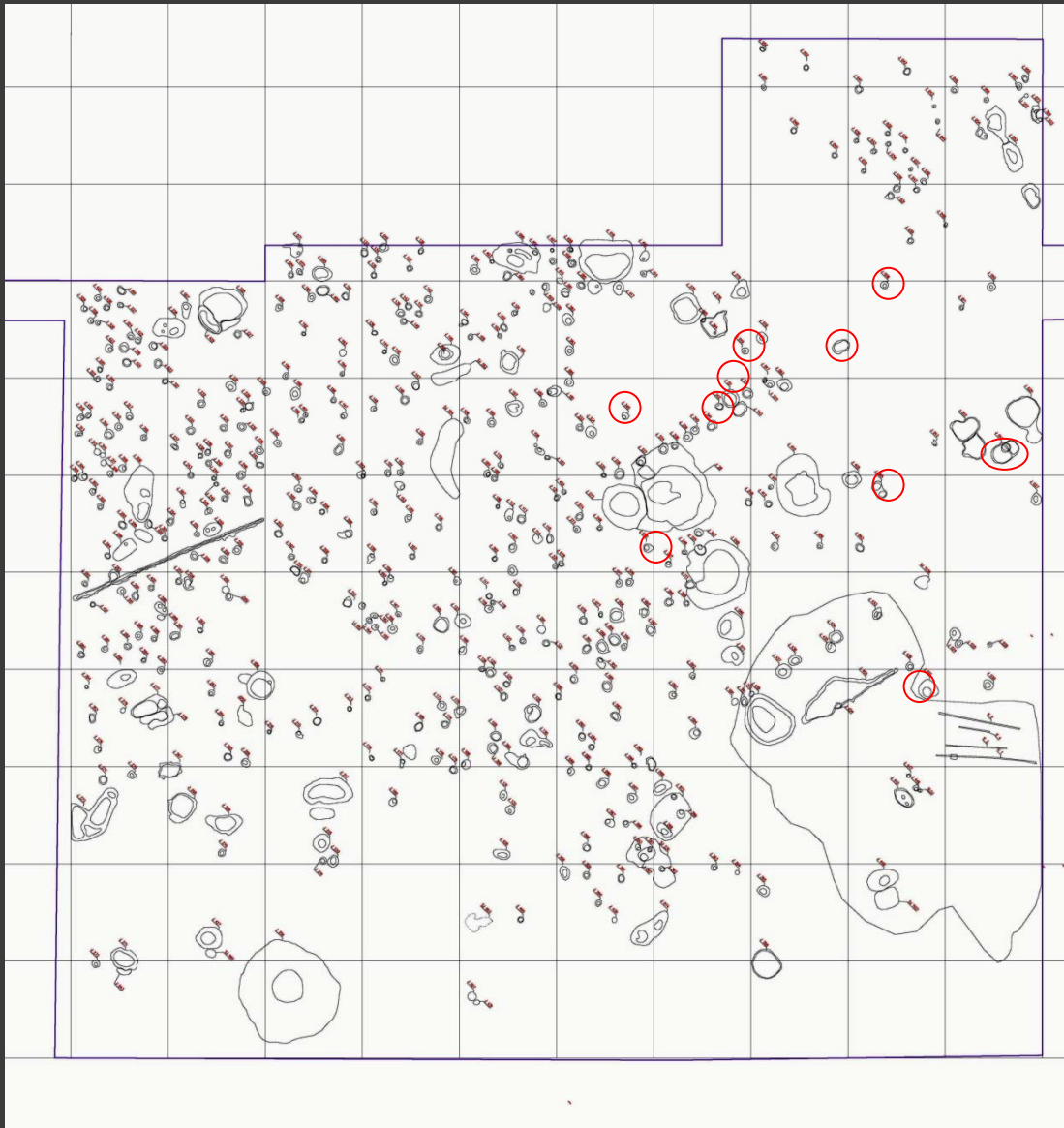
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Three more interesting facts related to this pit:

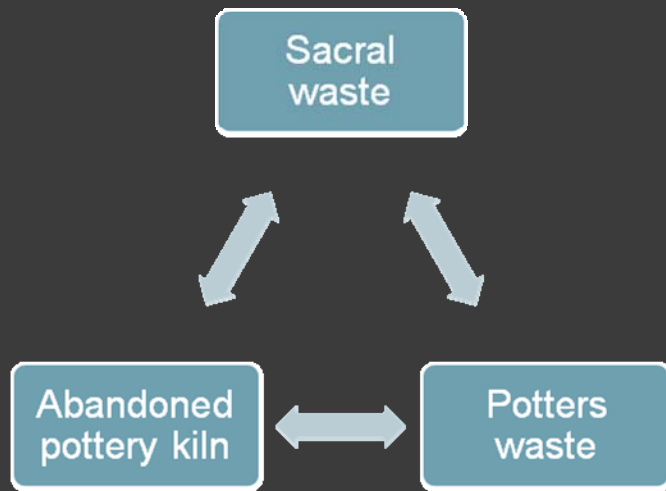
- stone axe
- very similar pit from the site Bezmerov (Czech Republic) – (Spurný 1972)
- Several similar units (ceramic deposit) in the immediate vicinity of the area between the settlement and the presumed pottery workshop



Spurný 1972:



Ground plan of Bronze age settlement Velika Gorica-south (Burmaz; Bugar 2006)



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Thank you for your attention...