Storage practice and problems with pests
Late Neolithic site of Selevac, Serbia

Dürda Obradović
Institute of Archaeology in Belgrade, Serbia

Storage context

The excavator’s report contained data on the size and shape of the clay structures but lacked data on their spatial context. Subsequent interpretations varied and the researchers had several dilemmas. I have tried to resolve these issues by looking back at the unpublished excavation records.

1) Was grain stored inside clay containers located above ground or in clay-lined pits?
   Based on the available drawings of the trench and the profile, it was concluded that these are clay containers projecting from the burned floor level. What remains unclear is how the contents were accessed. A possible opening was not mentioned in the report. M. Hopf suggested a reconstruction in which the structures were fully closed and had to be destroyed in one part in order to take the grain out (Fig. 2). This remains one of the possibilities.

2) Were the storages located inside the building?
   The amount of burned clay rubble found at the same level and immediately above them would suggest that the storages were located inside a building. They were burned in a fire that consumed the entire building. It can not be ascertained whether the room was part of a dwelling or a storage facility.

3) Were the structures used for storage or for grain parching?
   The general shape of clay containers a and β resembles that of Neolithic domed ovens, but this is not sufficient for their determination. The partition wall is a particular feature that does not appear in the ovens. The contents of the containers were not identifiable due to the preservation of the structures as storage is a characteristic of the archaeobotanical composition.

Archaeobotanical analysis

The excavation report notes the amount of charred material extracted from 3 of the storages: a (400 cm²), β (950 cm²) and γ (550 cm²). The charred material was packed in glass jars with basic provenance data on the labels and a note saying that the samples were flushed in distilled water (Fig. 5). There is no written record of the volume of soil taken from the storages, nor is the flotation procedure described. The archaeobotanical analysis was carried out from subsamples from each storage (Fig. 6). They had identical composition: einkorn grain (93%) and lentil. Wildseeded seeds are almost absent; only two seeds of Polygonum campestre L. were found (in storage β).

The containers were used primarily for storing of einkorn grain. The largest number of lentil seeds was found in the storage with a partition wall (β) which might have been used for the separation of the different crop types. Low quantity of chaff would suggest that einkorn was harvested before storage. Generally poor preservation of chaff in the samples may also indicate unfavorable climatic conditions, thus the practice of storing of spikelets cannot be ruled out. A single grain container could keep c. 100 kg of grain; i.e. the maximum storage capacity would be c. 900 kg.

Concluding remarks

Einkorn was one of the principal crops at Selevac. Stoves of einkorn shed new light on how it was grown, processed and stored. The purity of the stored grain suggests that einkorn was grown as a monocrop. The absence of weeds in the storages could imply intensive weeding practices during the growth period or thorough cleaning after the harvest. Either way, this required significant amount of labor investment and/or people. The amount of grain potentially kept in the storages (c. 900 kg) might have been enough for a year supply for a household of six. Whether the production has been organized on a household or communal level is a complex issue which needs further exploration.

It could not be determined with certainty whether einkorn grain was stored cleaned or in spikelets. Given the presence of pests, storing in spikelets would strategically be a better choice. This finds attention to the yield losses that farmers face, both through infestation and burning of large quantity of food supplies.

References

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