

5_2_3_1_House, Test_Pit_1/4_(2013)_Trench_5_(2014),_with_soil_micromorphology (see Burdo & Videiko 2016: 107 - 110)

The 4 x 1m test pit TP 1/4 was placed on a weak anomaly whose preliminary interpretation was as a 'probable house' ([ADS LINK TO 5_2_3_2_1_SITE_PHOTOS/House_Trench_5_2014_landscape_context](#)). Scanty remains of destruction daub and sherds were found in 2013. The Ukrainian side excavated a large area around this test pit in 2014 (Trench 5), in which similar remains of what may have been a rectangular dwelling were found at depths of 0.30 - 0.40m ([ADS LINK TO 5_2_3_2_1_SITE_PHOTOS/House_Trench_5_2014_upper_level](#)) and with more finds at 0.40 - 0.50m ([ADS LINK TO 5_2_3_2_1_SITE_PHOTOS/House_Trench_5_2014_lower_level_1 & 5_2_3_2_2_PLAN/Plan_of_House_Trench_5_2014](#)). Small quantities of daub with plant impressions and vitrified daub suggested to Dr. Videiko that this house was indeed burnt, an interpretation supported by the soil micromorphological analysis, which showed more charcoal than in burnt houses but firing at a lower temperature. An estimated MINV (minimum number of vessels) from this house came to 19 vessels - similar to those found in Houses A9 and B17 - and equally lacking in storage-jars ([ADS LINK TO 5_2_3_2_1_SITE_PHOTOS/House_Trench_5_2014_daub_and_pottery_concentrations](#)). It seems plausible that a smaller quantity of fuel had been placed in this house prior to burning, leading to the lower firing temperature and the small amount of burnt daub.

Soil micro-morphology, House TP 1/4 - Trench 5, 2014

Context TP 1/4 is mostly composed of soils similar to the natural Chernozem, with rare cultural inclusions (burnt daub). The samples can be subdivided to those from layers A and B on the basis of their structural and compositional differences ([ADS LINK TO 5_2_3_2_3_MICROMORPHOLOGY](#)):

- Samples 1A to 2B exhibit characteristics similar to the Chernozem A2 horizon and have very little burnt daub; they most probably correspond to Layer A (soils overlying occupation the former structure);
- Samples 3A to 4B resemble the Chernozem A3 horizon and have larger (but still few) burnt daub fragments; they correspond to Layer B (occupation deposits below the former structure).

The samples from Layer A are largely similar to the natural Chernozem A2 horizon in terms of their structure, groundmass and pedofeatures. Pedality is most developed at the top and decreases downwards, as indicated by the gradual shift from angular blocky to porous (spongy and granular) microstructures. The highly melanised silty quartz groundmass resembles the Chernozemic A horizon. Plant tissue residues are less abundant than in the natural soil, although their presence as a channel infilling indicates downward transportation through bioturbation. As in the burnt house, the presence of fauna, probably land snails, is indicated by shell fragments. Charcoal is present in higher quantities and as larger fragments than in the natural soils or in the burnt house. Pedofeatures include micrite coatings, as also encountered in the natural soils. In contrast to the natural soils, however, burnt daub is present, although is less rubified, less frequent and more comminuted than in the samples from the burnt house.

Samples from Layer B differ from those above in terms of the groundmass and the size of the daub inclusions. The apedal structures and greyish-brown groundmass resembles the Chernozem A3 horizon. The coarse organic fraction is predominantly composed of charcoal, again more numerous than in the natural soils. Infillings of melanised soil indicate entrainment of darker soil from above, probably the consequence of bioturbation. Fragments of mm-size burnt daub fragments are more common and larger than above, although still much less abundant and apparently less rubified than in the burnt house. As in the burnt house, the soil structures are complex and lack evidence of floors or other structural features.

In summary, TP 1.4 is predominantly composed of Chernozemic soils and has little evidence of anthropogenic modifications. Many of the conclusions drawn for the burnt house (TP 1/3) are also relevant here. However, in contrast to the burnt house (TP 1/3), this context has far less burnt daub but, interestingly, more abundant charcoal. Although daub is present, it is in smaller quantities than in the burnt house. Furthermore, the daub fragments appear less rubified, possibly indicative of lower firing temperatures. These observations have implications for how house architecture and burning are understood at Nebelivka. Furthermore, the larger abundances of charcoal in this context as opposed to the burnt house are significant for understanding contextually variable taphonomic processes at the megasite.