

## 5\_6\_1\_The\_ditches (Chapman et al. 2016)

At Nebelivka, the perimeter of the site covers a linear distance of c. 5.9km, of which 76% (c. 4.5km) was available for geophysical investigation. The geophysical plot shows a single ditch over much of the available perimeter, specifically the North, West and South sides of the settlement; erosion down the steeper slope of the East side probably removed traces of the ditch in that area ([ADS LINK TO SECTION 4\\_2\\_2](#)). A triple ditch appeared to show up in the South part of the geophysical plot, in Quarter L, but was not confirmed by excavation.

There are 13 well-defined gaps in the well-preserved parts of the perimeter ditch, with the width of the smallest gap being 10m and the largest 180m. Since there were no geological or pedological reasons to cause the magnetometry to miss existing stretches of ditch in these Quarters, we can assume that these gaps were genuine and thus resemble the kind of porous perimeter boundary well known to British prehistorians in the class of monument known as the ‘causewayed enclosure’ (*aka* ‘interrupted ditch enclosure’: Mercer 2006; Whittle et al. 1999).

The initial exploration of the oval linear anomaly took place by coring and trial excavation in 2013. The first core was placed in the North East part of the linear anomaly and reached a depth of 5.50m, without hitting any obvious ditch fill. Instead, there were two principal deposits in the core: a lower reddish silty clay deposit 1.79m in width (4.29m – 2.50m) and an upper off-white silty clay deposit 1.80m in width (2.50m – 0.30m). Informal testing of these clays showed that both were suitable for pottery-making. It is currently hard to explain how such thick clay deposits came to be present in a feature that may have been a ditch.

The second core through the linear anomaly was placed in the North West part of the mega-site. At the base of the 4.50m-deep core, a buried chernozem C horizon had developed over 1.10m (4.50 – 3.40m), with a 1.40m-thick deposit of alluvial clay above the first C horizon (3.40 – 2m). Above the alluvial clay, a typical chernozem sequence developed with an A, a B and a C horizon. Intriguingly, the contents of both cores into the so-called ‘ditch’ differed markedly from each other, as did the types of clay found in the two cores.

The test pit Sondazh 2 was laid out over a linear geophysical anomaly just North of Sondazh 1. Despite two extensions, no signs of a ditch profile were encountered ([ADS LINK TO 5\\_6\\_1\\_2\\_1\\_site\\_photos/S2\\_South\\_facing\\_profile\\_1](#)). This meant that a priority for excavation in summer 2014 was at least one section cut across the linear anomaly.

The initial excavation of sections across the Northern part of the perimeter ditch (Sondazh 4) and its Southern part (Sondazh 10) were accomplished by the Ukrainian side using ambitiously large trenches (Sondazh 4: 22 x 5m; Sondazh 10: 15 x 2m). In both trenches, the geophysical plans proved accurate guides of the location of the ditches but in neither trench were the ditches as deep as had been expected.

### **5\_6\_2\_1\_Ditch,\_Sondazh\_4**

Trypillia sherds were recorded from the middle and upper fill of the Northern ditch, as well as from the cultural layer above the ditch, but not in the lowest fill, where daub was encountered; no animal bones were recovered from within the ditch. However, daub was also found outside the ditch in the supposedly 'natural' sediments. The width of the Northern ditch segment was c. 2m, while there was considerable debate about the depth of the Northern ditch exposure, with different views recorded on Vince Cherubini's section drawing ([ADS LINK TO 5\\_6\\_2\\_2\\_3\\_Plans & sections/5\\_6\\_2\\_2\\_3\\_S4\\_S\\_facing\\_profile](#)). While the shallowest depth was believed to be 3m, the deepest ditch line was considered to be closer to 1.50m. Bulk samples from the ditch fill indicated a distinctive habitat which persisted for some time – for example; an open, gradually infilling ditch, mainly dry, but holding significant pockets of moisture, with thick/long grasses and other herbaceous plants, perhaps sparse trees, but in a landscape dominated by short grassland. Thus the debate over whether this shallow ditch contained a palisade has not entirely been settled, although there were no post-holes visible to document this kind of feature.

### **5\_6\_3\_1\_Ditch,\_Sondazh\_10**

This sondazh was laid out across an area in which three parallel ditch sections were indicated by the geophysical plot ([ADS LINK TO 5\\_6\\_3\\_SONDAZH\\_10/Plan/5\\_6\\_3\\_2\\_2\\_S10\\_Plan](#)). Each ditch was recognizable but their depths were less than the shallowest interpretation of the Northern ditch segment, in no case exceeding 1m in depth ([ADS LINKS TO 5\\_6\\_3\\_2\\_3\\_S10\\_Sections/SONDAZH\\_10\\_section\\_Ditch\\_1](#); [5\\_6\\_3\\_2\\_3\\_S10\\_Sections/SONDAZH\\_10\\_section\\_Ditch\\_2](#); [5\\_6\\_3\\_2\\_3\\_S10\\_Sections/SONDAZH\\_10\\_section\\_Ditch\\_3](#)). One Trypillia sherd was found in the middle fill of Ditch 1, with one sherd loosely associated with Ditch 3. One animal bone sample was recovered from near Ditch 3 for AMS dating.

The interim conclusion is that the shallowness of the ditch segments in the Northern and Southern areas was not commensurate with a defensive ditch but, rather, a marker of an enclosed space.