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GEOPAEDOLOGICAL INVESTIGATIONS AT THE ARCHAEOLOGICAL SITE LIPOVENI II-*LA NISIPĂRIE* FROM CIMISLIA DISTRICT

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The archaeological site Lipoveni II-*La nisipărie* is located in the suburbs of the Lipoveni village from Cimişlia district. The analyzed soil samples were taken from the archaeological section in the year 2021. The investigated soil is a typical uncovered chernozem and, according to the granulometric composition, it is characterized as loamy-sandy on the loamy sand's parental rock. For comparison, soil samples were also collected from arable land, at a distance of 100 m from the archaeological site, up to the depth of the parent rock of 130 cm, on the loam's parental rock. The density of solid phase of the samples collected from the site, determined according to Petinov method, constitutes 2,53-2,56 g/cm^3 up to a depth of 150 cm and 2,57-2,65 g/cm^3 in the underlying horizons. The values of apparent density do not correspond to a natural genetic profile, especially from 60 cm in depth. The parameters of density of the solid phase of control profile (from arable land) was in accordance with the genetic regularities of an intact soil profile. The density of the solid phase correlates with the content of humus (organic matter) in the soil. The humus was determined using the method of V. Tiurin, based on the oxidation of organic carbon (C_{org}), with the modifications proposed by V. N. Simakov. The humus content on the entire site profile was high (2,93-4,00 %) in the upper horizons and 2,40-3,67 % in the underlying ones, correspondingly the C_{org} content also was increased. This argues for the low values of the solid phase density in the underlying horizons. For the first half meter depth, that is in the upper horizons, the humus content corresponds to this type of soil [1]. In the same time, the high content of humus and C_{org} in the underlying horizons could be originated from anthropic activity. Regarding the granulometric composition, analyzed by the pipette method of N. A. Kacinskii [2], we note the small content of fine clay (< 0,001 mm) on the site profile, the values ranging between 6,27-10,40 % in the upper horizons and 4,49-8,73 % in the underlying ones. The high content of the sand fraction (56,12-77,34 %) is due to the parent rock on which the given soil was formed – loamy sand. Special attention is paid to the segmentation of the profile into four layers: I. 0-60 cm, which according to determined parameters corresponds with the control profile from the arable land (that is to say an integral profile); the other layers show traces of human activity; layer II. 60-120 cm, with frequent presence of burnt charcoal; layer III. 120-140 cm and layer IV. 140-200 cm.

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