

Preliminary considerations on a sedimentary sondage performed on the Eneolithic *tell* from Bucșani

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Rezumat: În campania de cercetări arheologice din anul 1998 a fost realizat un sondaj sedimentologic în baza așezării de tip *tell* de la Bucșani, în scopul elaborării unui studiu asupra relațiilor stratigrafice dintre nivelurile de locuire gumelnițene și depozitele naturale ce alcătuiesc lunca râului Neajlov.

Acest sondaj sedimentologic, situat la extremitatea primului nivel cercetat arheologic în suprafața de săpătură, și având o lățime de doi metri, a permis identificarea unei acumulări naturale, ce corespunde unui moment de abandon al așezării și separă niveluri culturale aparținând la două faze de locuire distincte.

Înregistrarea și studiul sedimentologic și arheologic al întregii succesiuni sedimentare a profilului acestui sondaj permit reconstituirea evoluției acestui *tell* din punct de vedere al relațiilor cu mediul natural.

Key words: *eneolithic, Gumelnița, tells, sedimentologz, alluvial deposits.*

1. Preliminary considerations

During the 1998 campaign of archeological researches, a sedimentological sondage was performed, in order to study the stratigraphical relations between the cultural levels Gumelnița and the natural deposits.

The sedimentological sondage was performed in the western extremity of the site (coming from the Neajlov river), at a depth between 1.01 and 3.75 meters from the reference point established at the upper part of the *tell*.

The succession of the sedimentary units studied on the eastern profile of this sondage consists, fundamentally, in two occupational levels separated by an alluvial accumulation, pedogenetically transformed (enriched with carbonate components).

2. The forming and development of the Bucșani-*tell*

The first occupational level, which forms the base of the succession, overlies an alluvial soil level developed on the deposits forming the base of the *tell*. This occupational level is marked by a fine succession of sediments corresponding to a dwelling made of burnt daub. A child grave and fragments of pots were found under a floor level of this dwelling (Silvia Marinescu-Bîlcu *et alii*, 1998, p. 94, n. 1). The limit between this cultural level and the alluvial sediments lies at 2.86 m deep from the reference point and at 0.40-0.65 m respectively from the present floodplain zone on the western bank of Neajlov River.

We must specify that for acquiring an objective image of the natural environment throughout the Neolithic phase of habitation at Bucșani we must also take into account the natural deposits accumulated on the alluvial plain after the abandon of the inhabited zone until present. Nevertheless, according to the up-to-present dates, the alluvial bar, which forms the base of the settlement, was at least 0.65 m high.

The dwelling discovered through this sondage, noted as L10, is represented by a fine succession of constructed floors and plasterings; these are interlaid with two levels consisting in materials resulting from the firing destruction of some antropogenic structures and interpreted as arrangements of the dwelling inner space, probably aiming to lift the beating level against the water reshuffling. The succession of sediments from the dwelling L10 ends with a destruction level by firing.

After the abandon and destruction phase of the dwelling, an external occupational level accumulates, including rare fragments of burnt daub, charcoal and ash grains, which probably come from the debris of some firing structure. The succession of sediments continues with a level of domestic waste formed, predominately, by the same type of constituents as the previous occupational level. At its upper part, this level contains a trace of fired daub, possibly resulting from the breakdown of a hearth or an oven. This sedimentary unit completes the stratigraphic succession ascribed to the first cultural level.

After the dwelling have been abandoned in the first phase of occupation, the settlement is flooded, the accumulated alluvial sediments reaching approximately 0.70 m thick. These sediments are stratified, three levels of equal thickness being distinguished.

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The last two levels are pedogenetically transformed, indicating the time span between the last phases of flooding and, respectively, between the last flooding and the beginning of the habitation phase Gumelnița B1.

These two occupational levels are represented through an organic matrix, which includes rare fragments of burnt daub. The absence of the archeological material coherently classified indicates the fact that the Neolithic dwellings were concentrated at the upper part of the settlement. On the other side, we must take into account the fact that the inferior limit of this cultural level reaches 0.70 m deep from the present zone, being included in the profile of the present soil, explaining thus the low state of conservation of the archeological vestiges.

3. Preliminary conclusions

The preliminary sedimentological study, analyzed at a macroscopic level, on the stratigraphic succession resulting from the sondage performed at the Neolithic Bucșani-*tell*, allows the following preliminary remarks:

- i. The site presents two distinctive cultural levels, separated through a relatively important alluvial accumulation. The dwelling L10, belonging to the first cultural level, presents constructed floors and plasterings of fired daub, in a good state of conservation.
- ii. After the destruction by firing, the dwelling is cut by a trench of 1.10 m deep, the upper limit bent and has an asymmetrical profile, in the northern part being packed an infilling with clay and pebbles and overlying the floor levels of the dwelling.

Judging both the general form of this profile and the fact that this trench divides the destruction level and is overlaid by the subsequent level, most probably, it stands for an alluvial channel dividing the dwelling L 10 and thus reshuffling the archeological material.

This fact means that the first phase of habitation in the site consists in two stages, established only on the natural conditions of the immediate vicinity of the tell. Another evidence standing for the things previously mentioned is also the bend of the upper limit of this trench towards the southern part with almost 20⁰, which bend is verified for both the overlaid occupational level and for the first flood level (fig. 2).

- iii. After this habitation phase, the dwelling has been abandoned for a period, elongated enough for the developing of the soil profile on the alluvial sediments. The further archeological information will unquestionably allow the establishing of the period, as this problem presents important archeological and sedimentological implications.

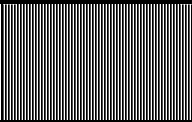
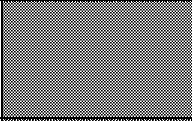
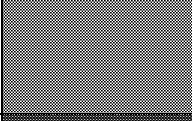
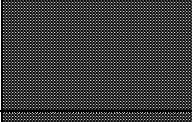
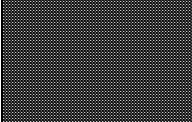
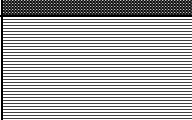
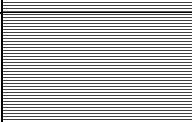

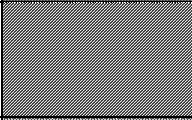
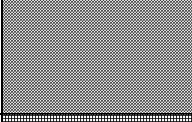
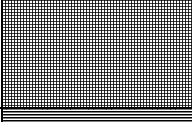
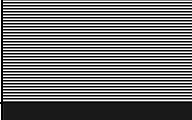

- iiii. At the level of the Gumelnița B1 phase, the settlement is reinhabited. On the first stage of this phase, a trench of approximately 1.50 m deep and between 0.20 m and 0.80 m wide is dug (fig. 2). This trench divides not only the occupational level, but also the levels pedogenetically transformed; it consists in brown, high heterogeneous silt sediments, including rare fragments of burnt daub and charcoal and fragments of silt sediments of light gray and greenish-greenish colour.

Unlike the first trench, this is most likely of anthropogenic origin, its possible utility remaining to be established through further archeological researches.

We finally want to specify that, although up to the present moment this study had no opportunity for thorough micromorphological analysis, nevertheless, we may see the importance of these preliminary notes both for understanding the development of the studied Neolithic community, and for emphasizing the problems the further archeological researches should solve.

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UNIT and DEPTH (m)	PROFILE	DESCRIPTION	INTERPRETATION
1 1.01 - 1.51		Clayey silt, light brown, homogenous, crumby, weakly developed prismatic structure, contains fine grains of calcium carbonate.	Actual soil.
2 1.51 - 1.65		Sandy silt, brown, homogenous, weakly developed prismatic structure, including rare fragments of burnt daub.	Cultural level Gumelnița B1 pedogenetically transformed.
3 1.65 - 1.70		Sandy silt, brown, prismatic structure, crumby, frequent burnt daub.	Occupation Gumelnița B1.
4 1.70 - 1.91		Clayey silt, brown grey, homogenous, crumby, millimetrical aggregated structure, rare carbonate granules and fine fragments of burnt daub.	Soil unit.
5 1,91 - 2,17		Dense silt and sand (at the bottom), brown-grey, aggregated structure, heterogenous, compact, including frequent carbonate granules and spots and rare fragments of burnt daub.	Alluvial accumulation (?) pedogenetically transformed.
			
6 2.17 - 2.20		Silt with clay, dark grey, homogenous, without anthropic constituents.	Alluvial accumulation.
7 2.20 - 2.35		Silt, greenish grey, granular, high heterogenous, including carbonates.	Alluvial accumulation pedogenetically transformed.
8 2.35 - 2.44		Silt, brown-grey, granular, high heterogenous, with frequent fragments of burnt daub, ash and coal.	Domestic wastes.
9 2.44 - 2.57		Silt, brown grey, granular, relatively homogenous, with very rare fragments of burnt daub, ash and coal.	External occupation layer.
10 2.57 - 2.67		Silt, reddish grey, granular structure, homogenous, with frequent fragments of burnt daub.	Destruction layer.
11 2.67 - 2.72		Two silty layers, brown-reddish, homogenous, compact	Floors of a dwelling.
12 2.72 - 2.77		Layer of fired daub, brown blackish, granular, homogenous.	Fitting out layer.

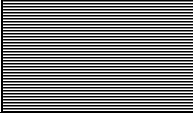
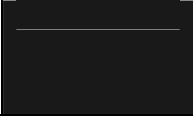
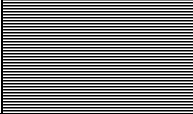
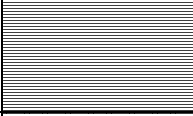
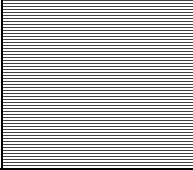
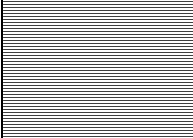
13 2.77 - 2.79		Two silty layers, brown reddish, homogenous, compact.	Floors of a dwelling.
14 2.79 - 2.82		Silty, brown blackish, granular, homogenous fired daub.	Fitting out layer.
15 2.82 - 2.86		Fine silty unit, brown grey, in three strata, homogenous, compact.	Floors of a dwelling.
16 2.86 - 2.89		Clayey silt, brown yellowish, homogenous, with rare fragments of charcoal.	Alluvial accumulation.
17 2.89 - 3.56		Silty clay and fine sand, light grey, homogenous, compact, weakly developed aggregated structure, including frequent carbonate spots and ferruginous impregnations and rare fragments of burnt daub.	Alluvial accumulation. Soil unit previous to the habitation phase Gumelnița
18 3.56 - 3.75		Silty clay and fine sand, grey, heterogenous, compact, aggregated structure low developed, including carbonate granules and spots, without anthropic constituents.	Alluvial accumulation. Soil unit previous to the habitation phase Gumelnița.

Fig. 1: The stratigraphical succession studied on the eastern profile of the sedimentological sondage.
Succesiunea stratigrafică studiată pe profilul estic al sondajului sedimentologic.

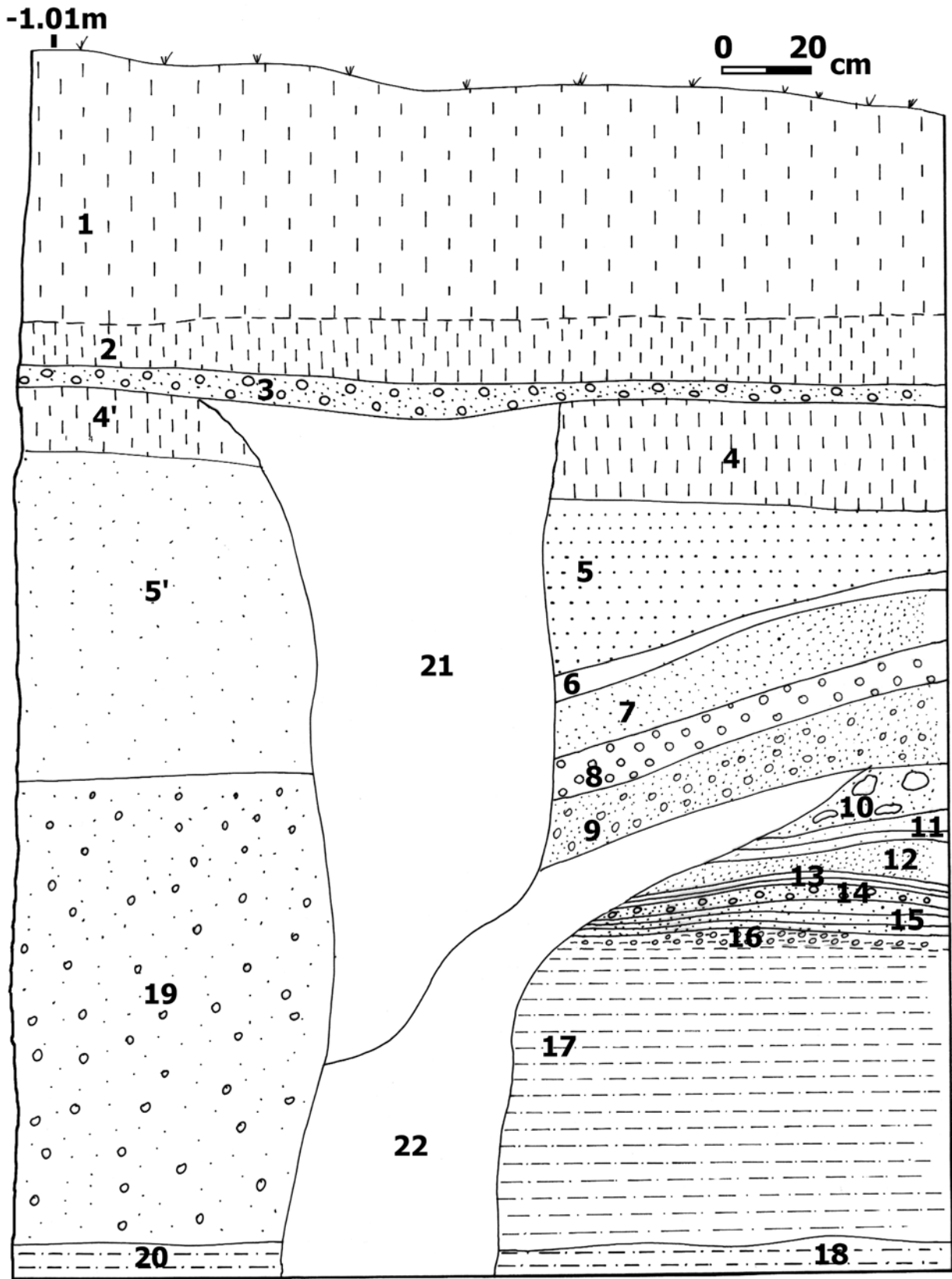


Fig. 2. The stratigraphical profile studied on the eastern side of the sedimentological sondage.
Profilul stratigrafic studiat pe latura estică a sondajului sedimentologic.