WHY NO EARLY NEOLITHIC IN DOBROGEA?

A. BOLOMEY

The early ceramic Neolithic of Romania belongs to the widespread Starčevo-Criş cultural complex. Settlements with Criş ware cover almost all the country.[1] The fact that the settlements in south western and southern Romania date from an earlier stage of development of this culture whereas those east of the Carpathians date from its later stages has suggested a progressive penetration from the south and south-west to the north and north-east.

On the other hand, so far no Criş discoveries have been made in Dobrogea, i.e. the south-eastern corner of Romania or the area comprised between the Danube, the Danube Delta and the Black Sea.

When the Hamangia culture, known only in Dobrogea (and, more recently, in north-eastern Bulgaria), was discovered, it was believed to be an early Neolithic culture, typical of the region under consideration.[2] However, synchronism can be established only between the Hamangia and the Boian cultures [3] or, according to radiocarbon dates, a development during the second half of the fifth millenium and the first centuries of the fourth millenium.[4]

Nevertheless, the Hamangia culture continues to be the oldest ceramic Neolithic identified in Dobrogea.

A glance at the archaeological map of the early Neolithic in Romania shows that Criş settlements do not reach as far as the Danube in the south-eastern and eastern parts of the Romanian Plain; they leave a blank strip along the river, which is narrower in southern Muntenia and gradually widens as the Danube bends northward.[5]

An explanation of the synchronous absence of Criş discoveries on both banks of the last stretch of the Danube can be found only in the equilibrium between the sea and the Danube, since "Eustatic movements influenced especially the rate of accumulation in the north-eastern part of the Romanian Plain, the Danube Delta... and almost all the Lower Danube".[6]

Indeed, geomorphological research along the coast supplied evidence of a +5-metre-high terrace cut during a holocene transgressive movement of the Black Sea. Various authors gave this transgression different names.[7] A. C. Banu's term of "Neolithic Transgression" [8] has been adopted in this paper because (a) it has an archaeological meaning, (b) A. C. Banu's synthesis and interpretation of the data are the best, and (c) an attempt to correct his chronological scale will be made in this paper on the basis of archaeological findings.

For the purpose of this paper, the rise of the sea level matters less than its effects on the course of the Danube on the one hand, and on the inland water-courses of Dobrogea on the other.

A + 4.5+5 m terrace has been located along the northern limit of Dobrogea, downstream of Măcin.[9] Its sediments contain sea mollusc species (*Cardium edule*, *Nassa reticulata*, *Venus gallina*, etc.). In other words, they bear evidence of a large gulf of the sea, which covered

[1] Recent and still isolated discoveries in central Transylvania (at Gura Baiului) and southern Oltenia (Circea) brought evidence of an early ceramic inventory resembling the Protoseskio of Greece. Experts have not yet come to firm conclusions as to whether these sites should be dated to a very early Starcevo-Criş or rather to a pre-Starcevo-Criş episode. Cf. N. Vlassa, ActaMN, 9, 1972, p. 7–28; M. Nica, Dacia, N. S., 21, 1977, p. 13–53.

[2] D. Berciu, NEH, 1, 1955, p. 29–46; idem, *Cultura Hamangia*, I, Bucureşti, 1966, p. 17 f.; idem, Bull. Soc. Roy. Belge Anthrop. Préhist., 78, 1967, p. 5–92.

[3] Idem, Bull. Soc. Roy. Belge Anthrop. Préhist., 78, 1967, p. 21–22; see also, V. Dumitrescu, Peuce, 1, 1971, p. 3–8.

[4] V. Dumitrescu, Preistorie Alpina, 10, 1974, p. 100–104.

[5] Cf. V. Dumitrescu, in Em. Condurachi, V. Dumitrescu, M. D. Matei, *Carte archéologique de Roumanie*, Bucarest, 1972, p. 13 and fig. 3.

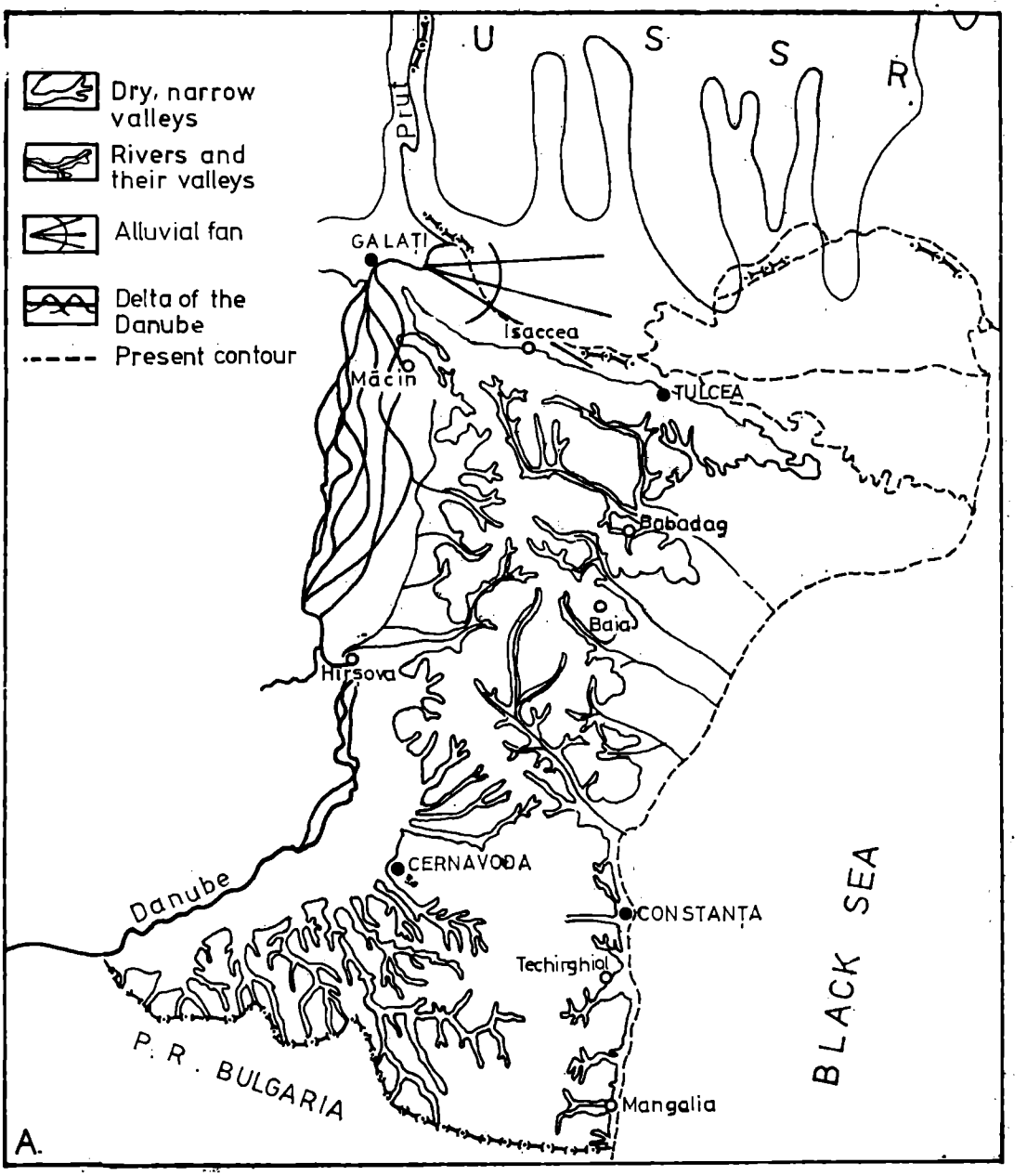
[6] Gr. Posea et al., *Relieful României*, Bucureşti, 1974, p. 209.

[7] The most frequently used term is that of "New Black Sea". The same height of the terrace suggested M. Bleahu the adoption of the term "Dunkerquien". Cf. M. Bleahu, Revue de Geol. et de Géogr., 6, 1962, 2, p. 343. After some hesitation, P. V. Coteţ decided that the name "Dobrogea transgression" would be most suitable. Cf. P. V. Coteţ, in *Lucrările Colocviului de limnologie fizică*, Bucureşti, mai 1970, p. 32.

[8] A. C. Banu, Hidrobiologia, 5, 1964, p. 237–252; idem, Hidrobiologia, 6, 1965, p. 269.

[9] Idem, Hidrobiologia, 6, 1965, p. 259–278. All the following descriptive data are mainly based on this paper, especially on the legend of fig. 3, p.264.

DACIA, N.S., TOME XXII,1978, pp. 5–8, BUCAREST



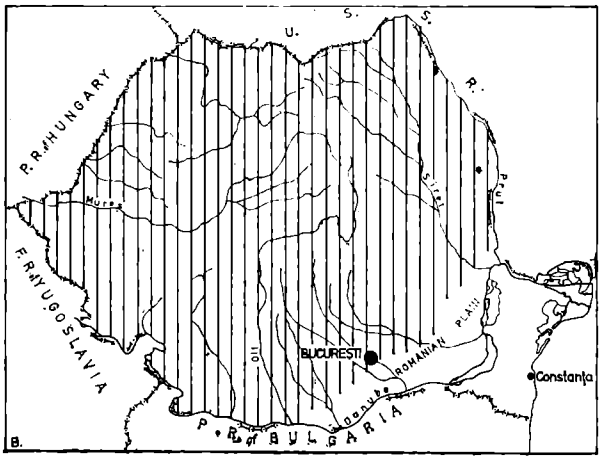


Fig. 1. — Tentative reconstruction of the territory of Dobrogea during the Early Neolithic (based on the works referred to in footnotes 9 and 10; 2. Expansion of the Criș culture in Romania (see footnote 5).

the area of the present delta and extended as far as present-day Tulcea, or even Isaccea. The mouths of all the rivers north of the gulf became lagoons. An alluvial fan formed where the shortened Danube flowed into the gulf. Before reaching that point, however, the river branched into several arms along the contact line between Dobrogea and the Romanian Plain, forming a delta where the present "Brăila Island" stands. Negative epirogenetic movements are also believed to have had some influence, but their extent cannot be estimated.

Under the circumstances it is no longer surprising that the Criş people stopped their expansion at a certain distance of the present Danube in the southern and especially in the eastern parts of the Romanian Plain; they were compelled to do so by a modified hydrological network which, in a well-known subsidence region, certainly formed large flood and marshy areas.

To return to Dobrogea, its geomorphological map shows a festooned contour of its western border. In its south-western corner, a series of "dry, narrow valleys"[10] are sometimes filled partly or wholly by the waters of the Danube.[11] At a constantly increased water-mark, they must have acted as permanent secondary channels of the Danube.

There are few perennial rivers in Dobrogea today. What we must bear in mind is that the Neolithic Transgression was preceded by a long period during which the level of the sea was constantly below the present one.[12] Consequently, the rivers were much longer — a fact confirmed by the identification of their submerged valleys on the present shelf.

The rise of the sea level from — 5 — 3 m to + 5 m had major consequences on the régime of the streams. For instance, geomorphological and stratigraphical studies have revealed that the present lake of Techirghiol lies in a former river valley whose mouth was turned into a gulf during the Neolithic Transgression.[13] In fact, most of the lakes along the Romanian coast had the same evolution.[14]

The shortening of the once long, powerful rivers[15] meant heavier alluvial accumulation, probably associated with frequent flooding, which resulted in the formation of swamps and pools. Indeed, "Fluvial geology is a better guide to local ground conditions than it is to the regional atmosphere".[16] If nowadays Dobrogea is one of Romania's driest regions (in terms of annual precipitations and of hydrological density), it need not have been so during the early holocene. It is even possible that the present seasonal and ephemeral streams were permanent rivers then.[17]

If this image of Early Neolithic Dobrogea, narrowed by the advance of the sea and the action of the Danube, striped with a dense drainage system, dotted with marshes, is correct, were environmental conditions favourable for mammals and men? Life was certainly possible, but it is hard to say whether the conditions were favourable or not. And it is even more difficult to specify for what mammals and for what men. No Late Paleolithic is known in Dobrogea for the good reason that the settlements are most probably buried under the sea. Did those populations move, about the end of the pleistocene, to the north-Pontic plains while the passage along the coast was still possible? Did they retire to the plateaus, hills and low mountains of north Dobrogea, where their vestiges have not yet been found?[18]

[10] P. V. Cotet, *Geomorfologia României*, Bucureşti, 1973, p. 336, fig. 162. According to maps, similar valleys seem to have been carved in the Bulgarian bank too, between Silistra and Ruse. Cf. * * * *Atlas geografic general*, Bucureşti 1974, p. 51. The town of Ruse is situated almost across the mouth of the river Vedea which approximately marks the western end of the strip free of Early Neolithic discoveries along the Romanian bank.

[11] * * * *Geografia Văii Dunării*, Bucureşti, 1969.

[12] From the Early Würm the level of the Black Sea was constantly negative, down to —80 m during the Neoeuxinic Regression. The following phase was the Old Black Sea Transgression after the Bosphorus straits had collapsed and the connection with the Mediterranean Basin had been established while the connection with the Caspian Basin had been interrupted. The rise of the sea level had two stagnation periods at about —20 m and —5m.

[13] P. V. Cotet, Hidrologia, 7, 1966, p. 267—274.

[14] Ariadna Breier, *Lacurile de pe litoralul românesc al Mării Negre. Studiu hidrobiologic*, Bucureşti, 1976, *pass.* and English summary, p. 165.

[15] Along the valley of the Techirghiol five erosive levels have been observed from a height of 60—90 m downwards. Their origin is not yet clear. Cf. P. V. Cotet, *op. cit.*, 1966.

[16] C. Vita Finzi, *Palaeoeconomy* (ed. E. S. Higgs), Cambridge, 1975, p. 225.

[17] For ex., 43% of the whole catchment area of the littoral lakes (4,589 km²) is supplied by intermittent streams. If these were permanent, another 1,979 km² would be constantly covered by water. Cf. A. Breier, *op. cit.*, p. 64.

[18] The information about this period is not very conclusive. An aceramic Neolithic level with sheep bones was reported from the cave "La Adam". Cf. C. Rădulescu et P. Samson, Z. f. Tierz. u. Züchtungsbiol., 1959. The stratigraphy consists of a long Mousterian sequence, a poor early Upper Palaeolithic layer, a Mesolithic layer with *Ovis* bones of larger size than the sheep bones from the aceramic level. Hamangia sherds were also recovered. The difference in size between the sheep bones in the Mesolithic, i.e. microlithic assemblage, and in the succeeding levels has suggested to the inventors a sheep domestication centre at La Adam. The stratigraphical sketch shows (a) a very steep slope of the deposits, and (b) very thin post-Mousterian layers. The risk of a distinction between wild and domestic based on bone size is well known.

Recently, Al. Păunescu reported the discovery of a "Tardenoisian site" at Straja, not far from Constanţa (cf. contribution at the annual session of the Constanţa Museum of National History and Archaeology, October 1977). Except microlithic implements, no other materials were recovered.

This lack of information about a population continuum alone does certainly not justify the reverse alternative of the Neolithic having been introduced into the area by allochthonous populations.[19] Supposing this happened, the crossing of the Danube was impossible, as stressed above, and there is no consistent evidence of landing from the sea even for later episodes of the Neolithic.[20] Access from the south remained the only way, but to people travelling on foot the heavy fluviatile network must have looked unreliable, giving the impression of vast water surfaces.

Up to this point we believe we have succeeded in explaining the reasons, almost entirely drawn from geographical and geomorphological works, for the absence of Early Neolithic in Dobrogea. It is the turn of archaeology now to contribute its share, namely a finer, closer chronology.

All geographers place the Neolithic Transgression (or its equivalent) in the "post-glacial climatic optimum". A. C. Banu writes: "Because this transgression corresponds to the climax of the Neolithic culture we have named it 'the Neolithic Transgression'." [21] According to archaeological evidence the climax of the transgression preceded that of the Neolithic, as seen by Banu [22]. Indeed, during the fifth millenium, i.e. during the spreading of the Hamangia culture or, perhaps, shortly before, the balance between the slope of the valley floor and the sea level had been achieved and had acquired some stability. Otherwise, Hamangia sites would not be located in low areas, where rivers run into the sea. Obviously, constant flooding was not to be feared anymore.

For instance, the sites at Ceamurlia de Jos and Goloviţa (Baia), which stand 2 km apart, are located in the vicinity of the Caugagia river, "close to the place where it runs into lake Goloviţa." [23] What remained of the site at Techirghiol was "on the gentle, sunny slope on the northern shore of the lake." [24] The site and cemetery at Limanu, discovered during the construction of a dam "at the western end of lake Mangalia", were in a higher position.[25] The discoveries at Cernavoda have been made "on the lower terrace of the Danube, sometimes climbing to the middle ones." [26]

Even more suggestive is the situation in Muntenia where Boian communities spread all over the Romanian Plain, frequently settling along the bank of the Danube, which had retired almost into its present bed.[27]

One of the most interesting sites dating from that period is Hîrşova in Dobrogea, on the bank of the Danube not far from where the river is narrowest. It is a tell built on a rock "which was covered with sand carried by the Danube during floods." [28] The cultural sequence over a thickness of 11 m begins in the Boian-Vidra phase and ends in the period of transition from the Neolithic to the Bronze Age (Cernavoda I culture). A considerable amount of Hamangia sherds was found in the Boian levels, which points to close contacts between those populations. It is clear that the Danube, which had separated Dobrogea and Muntenia for some time prior to the fifth millenium B. C., ceased being a barrier between the two regions, which have been twins of the same cultural area ever since.

[19] Nevertheless, it is the common hypothesis among most Romanian prehistorians. For the most recent synthesis, see V. Dumitrescu, *Le début du Néolithique au Nord du Danube, en Roumanie*, in *Actes du VIII^e Congrès Intern. Sc. Préhist. et Protohist.*, I, Beograd, 1971, p. 85–96.

[20] While D. Berciu inferred the sea route for the Hamangia populations, cf. D. Berciu, *op. cit.*, 1967, p. 26, O. Necrasov and S. Haimovici noted the poor exploitation of sea resources in the Hamangia site at Techirghiol, cf. O. Necrasov , S. Haimovici, Materiale, 8, 1962, p. 182.

[21] A. C. Banu, Hidrobiologia, 6, 1965, p. 265.

[22] Banu makes no distinction between the Early Neolithic, which may have lasted about 2,000 years, and the subsequent phase, which starts about 4400 B.C. It is the cultures of the later that Banu considers (Boian-Spanţov, Gumelniţa, etc.) – cf. *op. cit.* at footnote 21. On the curve of the Neolithic period, these cultures represent the advanced Neolithic. In our view, however, the climax of the transgression corresponds only to the Early Neolithic.

[23] D. Berciu, *Cultura Hamangia*, Bucureşti, 1966, p. 232.

[24] E. Comşa et al., Materiale, 8, 1962, p. 165.

[25] D. Galbenu, Materiale, 9, 1970, p. 77.

[26] D. Berciu, *op. cit.*, p. 58.

[27] It is not out of the question that conditions in southern Muntenia had improved even before the advent of the Boian culture, since isolated discoveries attributed to the earlier culture of Dudeşti are reported from the locality of Boian-Vărăşti. Cf. E. Comşa, Materiale, 8, 1962, p. 205–210.

[28] D. Galbenu, SCIV, 13, 1962, 2, p. 285 f.