

The Neolithic Settlement Pattern and Salt

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During the history of mankind numerous relationships, alliances and animosities have depended on salt. Salt was the cause for waging many a war. Salt was the source of wealth, and a cause of the rise or destruction of many a state. Although it still is a basic strategic commodity, only recently have we come to pass over it, at least in everyday life.

A *necesse est* commodity such as that (yet so perishable from archaeological records), salt has been taken for granted and overlooked in discussions about the problems of the genesis of the Neolithic. The importance of trade and exchange in the Neolithic period has been discussed amply in archaeological literature, often dealing with obsidian, flint, quartz, sulphur, bitumen, spondilus, cinnabar etc. However, proper attention has been paid neither to the use of salt nor to the trade and exchange of this indispensable commodity. The most probable explanation for this is its abovementioned perishable nature and a relative abundance of salt in the regions of primary Neolithisation.

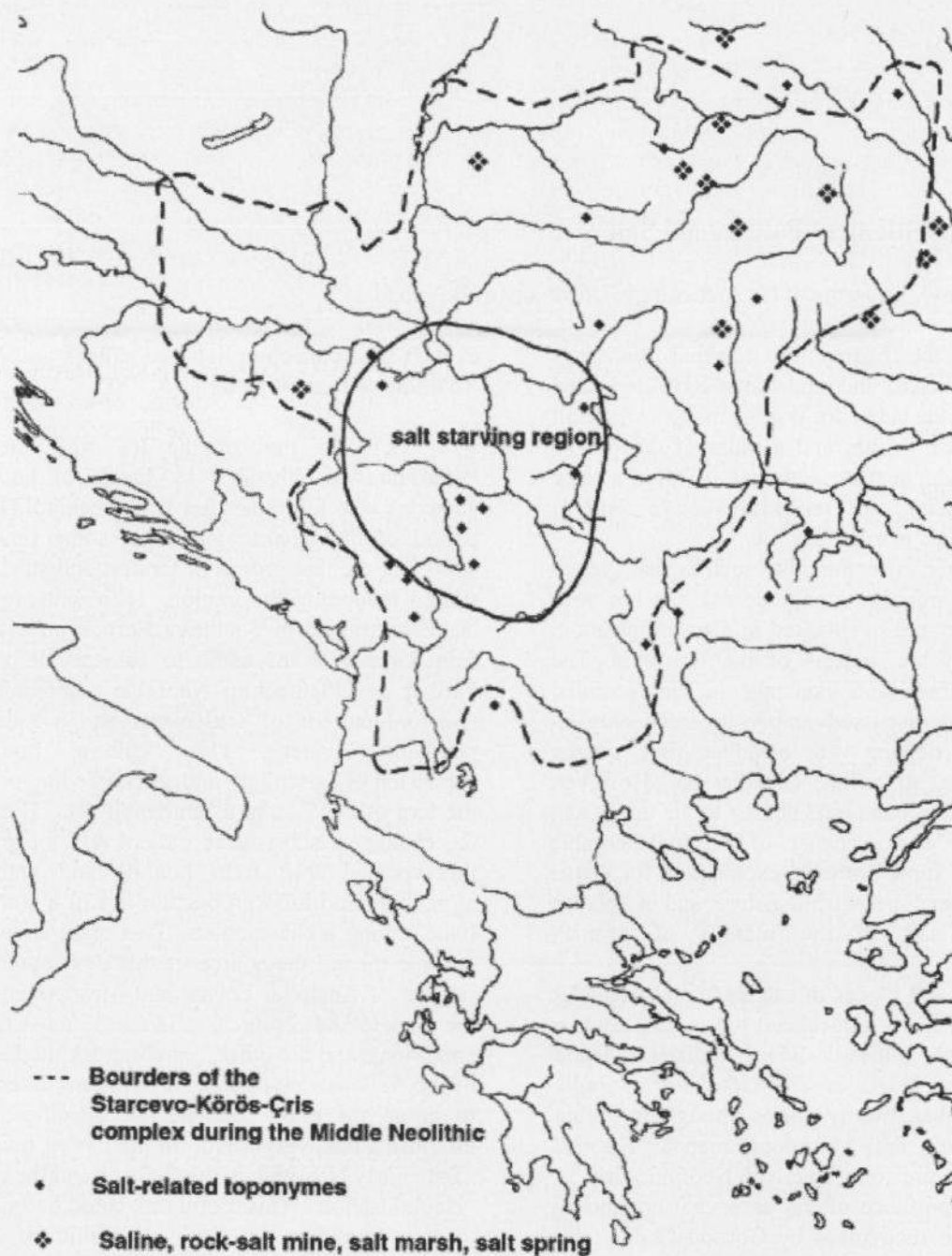
Salines and places of salt trade and exchange are usually marked by salt-related toponymes such as Salzburg, Salona, Salies-de-Béarn, Salisbury, Halle, Hallein, Hallstatt, Tuzla or Tuz Göllö. For example, there are more than twenty places throughout Serbia, Romania, Bulgaria and Macedonia named "Slatina", and most of them are connected with Neolithic sites.

The importance of salt as a vital commodity has already been recognised by Gordon Childe, who tended to explain the golden finds from Merseburg by the exchange and "commercial importance" of salt (Childe 1929: 244). These findings, however, belong to a much younger epoch of prehistory. Paradoxically, the significance of salt has been neglected in studying the cultures of the Neolithic – the time of sedentarisation of human populations, of domestication of animals and cultivation of plants. Except for brief notes concerning salt trade (e.g. Sherrat 1976; Anati 1962; Gimbutas 1991) there have been no attempts to

explain the connection between salines and the Early Neolithic settlement pattern.

At the end of the Ice Age, the Balkan Peninsula was inhabited by bands of hunters and gatherers who left rather few traces behind. During the period of the *climatic optimum*, some time around 6200 BC, the first groups of farmers and stockbreeders started inhabiting this region. Their settlements have been ascertained in Southeast Europe on a vast area: from Greece in the south to Hungary in the north. Further development of Neolithic communities gave rise to hundreds of settlements and a rather dense population pattern. This "cultural boom" and expansion of agriculture and stockbreeding occurred at the turn of the 7th and 6th millennia BC. The cause of the change in subsistence pattern and the process of this epochal shift from hunting and gathering to agriculture and food production is still a controversial issue among archaeologists. Two main streams exist: the one tracing the source of this development to the regions of Anatolia, Levant and Mesopotamia, where the climate and resources offered the most favourable conditions, and the other, searching for the local origin of the *Neolithic revolution*. It is not my intention here to argue for either one of the hypotheses, but to establish a link, very useful for the further investigation of the Early Neolithic in the Balkans and the process of "Neolithisation". This useful link could be salt.

Studying the Early Neolithic of Southeast Europe and its connections with the Near-Eastern Neolithic, mapping the sites and superimposing them on the maps of salines (according to presently known deposits, marshes or brines, and relying on the toponomastic research), one comes to the conclusion that Early Neolithic settlements are almost always associated with salines. Therefore, I shall argue in this paper that the settlement pattern in the zone of primary Neolithisation and its penetration/diffusion into



Map 1: the salt starvation area in the central Balkan in the Neolithic period.

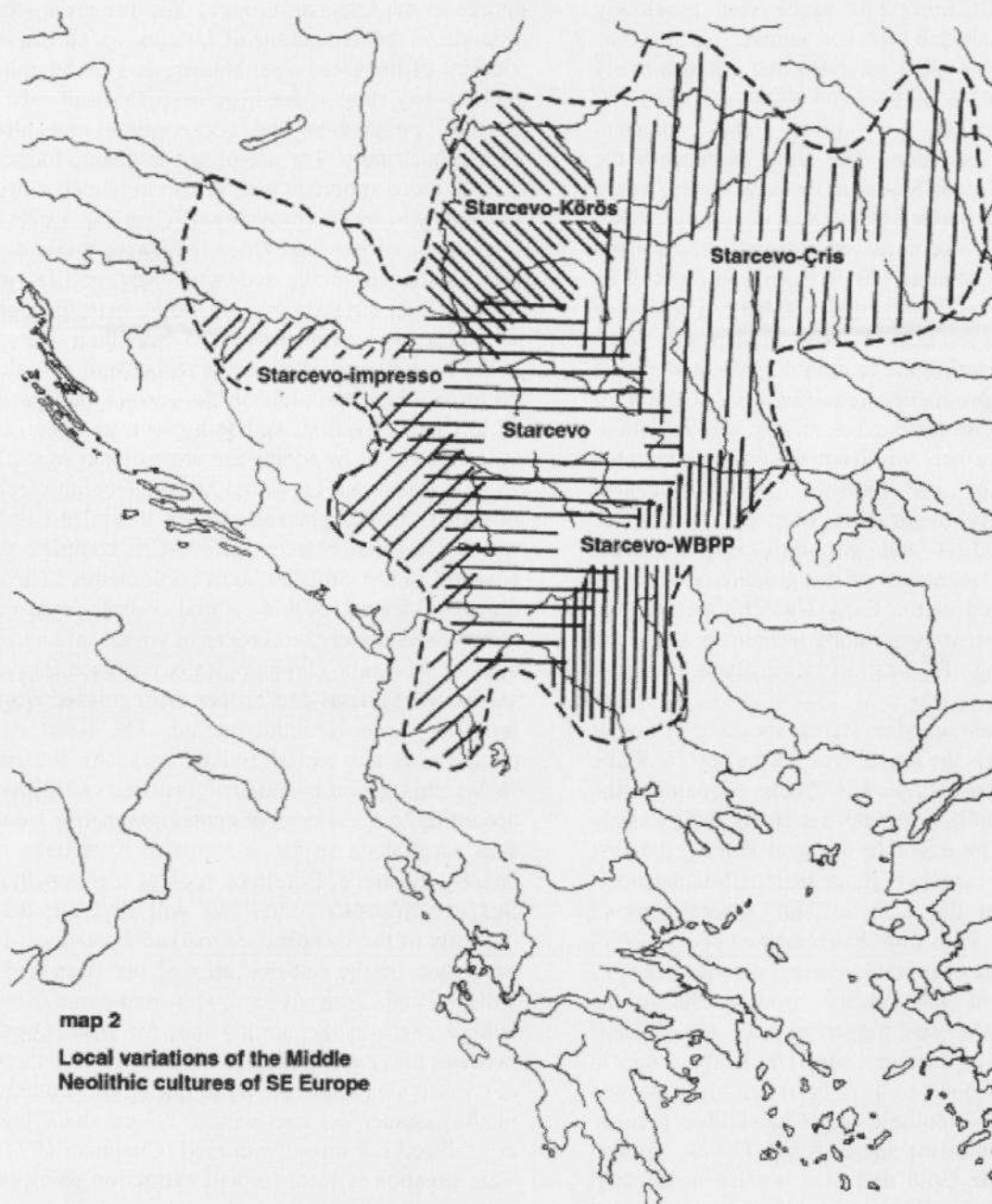
Southeast Europe is to be seen as closely connected with salt-rich soils and salines.

Firstly, we must ascertain that salt was really in use during the Neolithic (some 8000 years ago). For this we have a few direct and abundant "circumstantial" evidences. The direct evidence is the site of Lunca – Poiana Slatini in the Siret valley, where Middle-Neolithic pottery was found in context with a saline that was in use until very recently (Dumitroaia 1987: 253-258). Another one is Gornja Tuzla with its cone-shaped ceramic ware that has been linked with the production of salt (Čović 1961). Furthermore, there are numerous descriptions in ethnological literature of "primitive" salt production requiring only a source of salt and fuel, or in some cases merely manual labour for collecting surface salt from naturally evaporated inland salt lakes and marshes. No sophisticated technology, which might have been an obstacle for early agriculturalists and pasturers, was involved. There are many techniques of salt production that may have been applied in the Early Neolithic period. We know about different evaporating techniques as well as about the filtering of the ash of saline plants (Adshead 1992).

The other set of evidence speaking in favour of the use of salt is the location of the earliest Neolithic sites. They are concentrated in Zagros Mountains, the Levant and Anatolia – regions extremely rich in easily available salt. The example of Çatal Hüyük, the first Neolithic urban centre, is more than self-explanatory. It is situated in the Konya Plain, several tens of kilometres away from what has remained of Tuz Gölü, a salt lake which evaporates during summer draughts leaving crusts of salt on the ground. During the Neolithic, the lake was bigger and the salt marshes extended as far as the very site. The Konya Plain in central Anatolia seems to have been densely populated during the Early Neolithic and Chalcolithic periods. Another very important site is Aşikli Hüyük, situated not far from Tuz Gölü and also not far from Hadji Bektas (near Kayseri), the third largest inland salt

source in the Ottoman Empire. Yet one more explicit example is the famous site of Jericho, which lies in the vicinity of the Dead Sea. Numerous sites in salt-rich regions may support the hypothesis that salt was used in food preparation and conservation and also in animal husbandry. The use of salt in animal husbandry is even more important than its use in human nutrition, because wild species provide sufficient salt intake from large areas of pastures. Once they were taken captive and habituated to the sedentary way of life, which happened during the Early Neolithic, extra portions of salt must have been introduced into their diet. This could be achieved either by grazing them on salt-rich pastures, which was probably the case in the Near East, or in cases of salt-starved soils, such as occur in the central Balkans, by adding imported blocks of salt.

The main Early and Middle Neolithic culture, or rather cultural phenomenon, in the inland Balkans was the so-called Starčevo-Körös-Cris complex, which covered almost 500.000 square kilometres. The most important feature of this cultural complex was coarse and painted pottery, according to which this period of man's past can be chronologically analysed into a fine sequence of phases and further distinguished from the following Late Neolithic period. The heart of this culture was the central Balkan area. As the map 1 shows, this region is extremely salt-starved. However, according to the dozens of contemporaneous Neolithic sites ascertained so far, it seems to have been rather densely inhabited. But, if we look at the map showing Starčevo-Körös-Cris sites, we will find out that the outskirts of the complex are marked by salines. In the east, there is the salt-rich area of the Siret and Prut valleys, and Transylvania with numerous Starčevo culture sites. In the north – not far from Oroshaza, between the rivers Tisza, Körös and Mures – there is a depressed area under the water during the autumn, and in the summer covered with a 1-3-cm-thick layer of crystallized salt mixed with mud (Chapman 1974: 31). This situation is ideal for salt extraction using one of



map 2

Local variations of the Middle
Neolithic cultures of SE Europe

the traditional evaporation techniques. Not far from this site the Early-Neolithic site of Szarvas 23 is situated, as well as an agglomeration of more than forty Neolithic sites. This area was the north-eastern border of the Starčevo culture, where it mixed with the

local Neolithic Körös culture thus forming the Starčevo-Körös culture. In the west, the rock salt-mine near Gornja Tuzla marked the border of the Starčevo culture. The southern border is marked with several *toponymes* Tuzi, Tuz (*tuz* = salt in Turkish) and

Sllanice in south-eastern Montenegro and in eastern Albania. Whether Starčevo sites in that area had any connection with inland or coastal salines, known to have existed near Valona and Dyrrhachium later in history, is still unclear.

The other important fact, according to archaeological records of household inventory, is that a striking mixture of cultures in salt-rich regions of the Balkan Peninsula can be observed. Such is the case with Starčevo-Körös sites along the Körös and Mures rivers, Starčevo-Cris in Transylvania and in the Siret and Prut valleys, Starčevo-Impresso and Starčevo-Vinča (!) in Gornja Tuzla, and also Starčevo-Impresso in Albania (Kolsh) and along the Yugoslav-Albanian border. Such a mixture of cultures could even suggest that no monopoly over salines existed in this period, and that the common interest in the important commodity brought different groups of people together. However, it is quite clear that the sites in salt-rich regions appear to have been wealthier and also more skilful in applying delicate techniques of decoration.

According to traditional archaeological dating techniques (stratigraphic sequence) and also the 14C-dating of the central-Balkan Neolithic, two main phases in the development of local cultures have been established. The first one – the Early Neolithic of the central Balkans is dated after the year 6200 BC, while the second, Middle-Neolithic phase, begins after 5800 BC (Tasić 1997). The first phase is marked by the sites situated along the Struma river, the route leading to salt-rich Transylvania. Very few sites representative of that phase occur in the central Balkan area. One very interesting fact is the dating of the archaeological material from Gornja Tuzla, which is the westernmost point of the Starčevo culture. The earliest material belongs to the beginning of the Middle Neolithic, and it was soon after this phase, during the Middle Neolithic of the central Balkans (MNCB I and II), that

this region became very densely populated, which may be related to the discovery of a new source of salt.

The introduction of salt as a trading item in the archaeological interpretation could finally help us explain the appearance of similar cultural phenomena such as white-painted decoration of pottery spreading over a vast area of the Balkan Peninsula – from south-eastern Albania to northern Romania. We could also follow the trade routes and further investigate the control over the salines and perhaps the initial accumulation of wealth, which eventually led to social differentiation and stratified societies. I do not imply here that salt was the only impetus to migrations or the only source of wealth in Neolithic communities, but I certainly do suggest that it should be taken very seriously into consideration when discussing the questions of human past dating back as early as the Neolithic.

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