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SYSTEMS OF RAW MATERIAL PROCUREMENT AND SUPPLY IN UPPER AND EASTERN THRACE AND SOUTH MARMARA REGION – VII AND VI MILL BC

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In this paper an attempt to reveal the different systems of raw material procurement and supply in the territory of Northern and Eastern Thrace and South Marmara region have been done and the results are presented further down. (Map 1)

Northern Thrace - systems of raw material procurement and supply - VII mill BC

In the territory of Northern Thrace a well defined system based on acquiring with high quality flint raw material had functioning. The former was connected with white - painted and dark-polished pottery phases in this area during the first half of VII mill BC.

In Northern Thrace the appearance of very high quality flint in all Early Neolithic assemblages could be established. The flint is yellow, yellow-reddish to brown and grayish in colour, opaque, with patterns of stripes or spots of varying density. (Hiller S., Nikolov V., 2000)

This type of raw material is registries in shape of relatively big blades in all sites chronologically relating to the first half of VII mill in Northern Thrace.

Up to now flint cores from the above-mentioned high quality yellow, yellow-reddish raw material have not been found in all Early Neolithic settlements of Bulgarian Thrace. This fact suggested that the core preparation and exploitation was done off the settlements and very likely somewhere more or less close to the places of flint provenance. This way could be explained the fact that in all Early Neolithic flint chipped stone

assemblages in Upper Thrace mostly blades and blade tools from this type of flint variety have been found.

Because of lack of seaving it is impossible to realize where this blank was secondary modified – in the work shop or in the settlements because seaving wasn't applying and part of the information was lost for ever.

As a whole the blade manufacture of Karanovo I and II and Azmak-Early Neolithic layer is characterized by very high level of technology. This blade technology was linked with very highly developed level of subsistence activities and with other social, economical and cultural level and/or context.

From the other side the very high degree of artifact concentration' of this kind of flint in Karanovo I and II and Azmak - Early Neolithic level, allow to define the Karanovo-Azmak population as bearers and owners of this very high develop and sophisticated technology.

It is very likely that namely this population organized trips to the flint locations in order to fill up their supplies. Probably it was the Early Neolithic population of Karanovo and Azmak that was maintained and controlled all elements of the entire production chain – from raw material accusation to all stages of core processing and to artifact usage.

In this case the area of highest concentration of specimen type Karanovo I-II and Azmak – Early Neolithic layer could be considered as a Centrum of this technology. Of course the reason for such suggestion is not only the presence of large amount of these blades in the area mentioned above. The 'technological features" should be scrutinized as a part of the whole complex of characteristics which referred these tells as key-sites during the Early Neolithic period in Northern Thrace.

In the same time the area of Karanovo and Azmak could be considered also as a "departure area" – or the area from where the blades could be distributed to the other points. Namely modified blades done on high quality flint raw material were distributed – even to the Maritsa/Meric delta'.(see below). These blades, which were found in other area come via exchange and predetermined their small quantity.

Unfortunately, it is still unknown the exact places of the flint outcrops or flint concentration and the location of the work shops where the raw material was gathering and core preparation and core reduction were carried out but nevertheless the pattern appears to be a high quality flint concentration in Northern Thrace in the first half of VII mill. BC

Having in mind the results from the mineralogical research in the territory of South Bulgaria and especially in the area of Northern Thrace – the former could be considered as potential zones for raw material supply with already described high quality flint raw material during the Early Neolithic period – first half of VII mill BC. (*Gatsov I., Kurcatov V., 1997*; *Kurchatov V., (in print)*; Dr. Ch. Nachev, personal information).

This way could be presumed the existing of relatively short and middle distance systems of supply with high quality flint raw material during the Early Neolithic period – around 6000-5500BC in Northern Thrace.

These systems had functioned in the area of Northern Thrace where the distances between the Karanovo-Azmak area to St.Ilia hills, Sredna Gora maintains and Eastern part of Rodopes are respectively between 80 and 100 km.

It should be concluded in the very beginning of the Early Neolithic period in Northern Thrace well organized stone production was part of the substantial strategy of the prehistoric population. The former is reflected in the functioning of very sophisticated production chain and very well worked system of exchange of long distance.

To face these three elements of the system: acquisition, production and distribution and put them into practice by the same population - supposed of existing of some kind of labor and social differentiation which was beyond the separation by sex and age.

Eastern Thrace and South Marmara region - systems of raw material procurement and supply - VII - VI mill BC

From the region of Eastern Thrace the chipped stone assemblages from the prehistoric settlements of Asagi Pinar, Hoca Çeşme have been processed.

As far as raw material procurement at Hoca Çeşme is concerned the former was based on three main groups of raw materials, each with different physical properties. The raw material presented by microcrystalline quartz, chert, and quartzite is undoubtedly with local origin. Behind this model was population with low level of technological possibilities and very limit know-how concerning core knapping and tool manufacturing.

In the same time a small number of yellow, yellow/brownish or grayish flint with or without grey inclusions and obsidian as well were pointed out as extra local ones.

It should be underlined the occurrence of very high quality dark yellow, yellow/brownish flint with grey inclusions in shape of few blades with high abrupt and semi abrupt retouch in phase 2 at Hoca Çeşme settlement.

The size of the blades, the quality of the flint and the lack of any corresponding artifacts as cores, crested and cortical specimens, debris and blades allow considering them as imports from Northern Thrace or from the area of Karanovo I-II settlements and Azmak – Early Neolithic layer. This type of flint raw material and the type of the above mentioned artifacts were emblematic for the earliest stages of Early Neolithic in Bulgarian Thrace.

The occurrence of these blades reflects a relatively long distance procurement of raw material– from Upper Thrace to the North towards Aegean Sea shore to the South. If it can be taken into account the straight line between these settlements displays considerable distance around $180-200\,\mathrm{km}$. (Map 2)

In this case it could be possible to speak that the east sea shore of the Aegean (Hoca Çeşme, phase II) and was the point to which the Karanovo I-II blades reached. This means that above presented-settlements at the Aegean and at the Marmara seas were the southeast points of the exchange system functioning between Northern Thrace (Karanovo - Azmak) and Eastern Thrace (Hoca Çeşme).(Fig.1; Fig.2)

About the other kind of extra local raw material such as obsidian the presence of some pieces could be considered as an evidence of some kind of activities connected with obsidian system of procurement, blank acquiring and tool manufacturing.

How was mentioned above due to the fact that results about the place or places of obsidian provenance have not been obtained yet - it is impossible to point out the mechanism of this procurement. The presence of small flakes, debris, crested specimen in the assemblages – lead to the conclusion that the obsidian core preparation and core knapping processes were carried out on spot – in frame of the settlement or near by. Simultaneously the obsidian artifacts, found in very small quantity indicated of incoming craftsmen who brought probably perform cores to the settlements were the core reduction was done.

About the later occupation of the population from Aşaği Pinar in Turkish Thrace the presence of obsidian is already zero – only 2 items have been found among more than 5000 pieces. The entire raw material structure consists of specimens done on local varieties flint and chert, which were intended for different purposes and the technological and typological profile of stone industry and labor organization were totally different.

It is interesting to point out that only two pieces from Aṣaği Pinar in the chipped stone assemblage from the settlement of Karanovo – KaranovoIII (*Hiller S., Nikolov V., 2005*, Taf.213, 1, Taf. 211,10) have been found. These are "plate" core specimen done on already presented raw material variety 17 and micro perforator as well.

At this stage of research it is impossible to conclude whether or not these two pieces can be considered as evidence of some kind of contact between both areas – respectively in Upper and Eastern Thrace.

Up to now it could be underlined only that approximately on the level of Karanovo III- Aşaği Pinar 5 periods single artifacts were found in Karanovo III, derived from Eastern Thrace – settlement of Aşaği Pinar, period 5 or this was the time span covering the period around 5500-5300/5200BC (*Parzinger H., Schwarzberg, H., 2005*, 68, 418-419) .

South Marmara region - VII mill BC

From the territory of South Marmara region-the chipped stone assemblages from the prehistoric sites at Ilipinar, Pendik, Fikir tepe and Mentese have been taken into account.

At Ilipinar in the earliest phases X and IX and at Menteşe-basal layer-obsidian cores have been found. Similar specimens come also from the assemblages from Fikir tepe and Pendik. It is very likely that obsidian concretions or perform cores were brought to the settlements and then the former were processed on spot – in all sites mentioned above.

Having in mind the possibilities of the groups from above mentioned settlements to obtain flint blades and to manufacturing flint tools it could be presumed also that they were able to manage with obsidian concretions and cores. Namely the population of the Ilipinar, Menteşe, Fikir tepe and Pendik was able to maintained obsidian blade production; the pressure and indirect percussion techniques were not a secret for them.

As far as the supply of local raw material of Ilipinar, Menteşe, Fikir tepe and Pendik populations' is taken into account – in all settlements

different raw material varieties from the surroundings were gathered. This kind of procurement did not need some sophisticated methods but the population had enough experience to make a maximum good choice in this direction.

The relatively good quality flint has been observed in shape of different type of artefacts in all chipped stone assemblages from these settlements. As a best proves could be considered the exploitation by pressure and punch techniques of so call bullet cores.

Concluding it should be emphasized that in the end of VII mill. BC and VI mill BC in the territory included between Stara Planina, Rhodope, Black Sea and Marmara Sea existed different models of raw material procurement, which were determined by different factors - environmental and cultural and which revel different system of organization.

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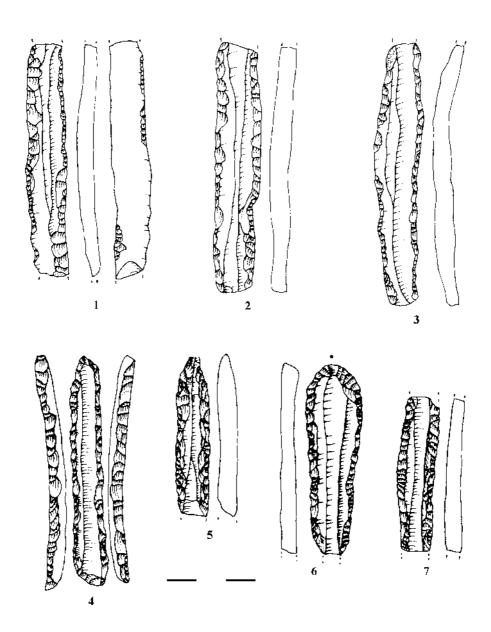


Figure 1-7 blades with high retouch. 1-3 Karanovo I-II; 4-7 Hoca Ceşme phase 2

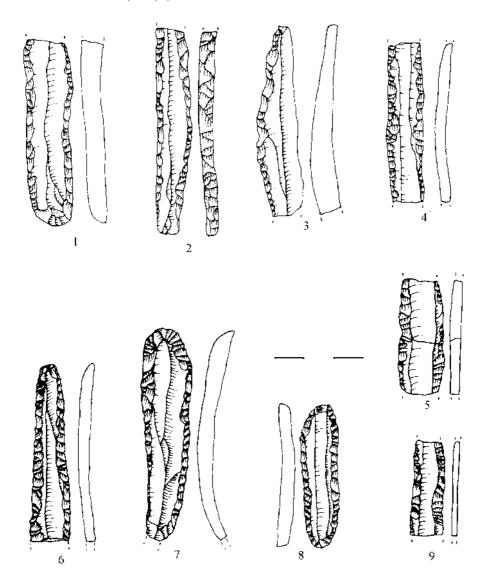
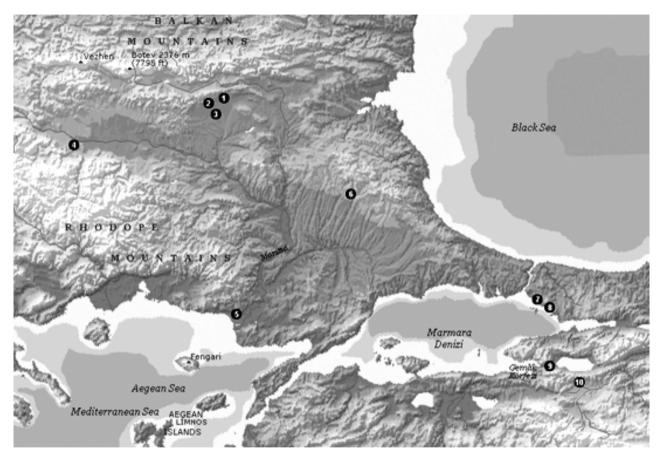
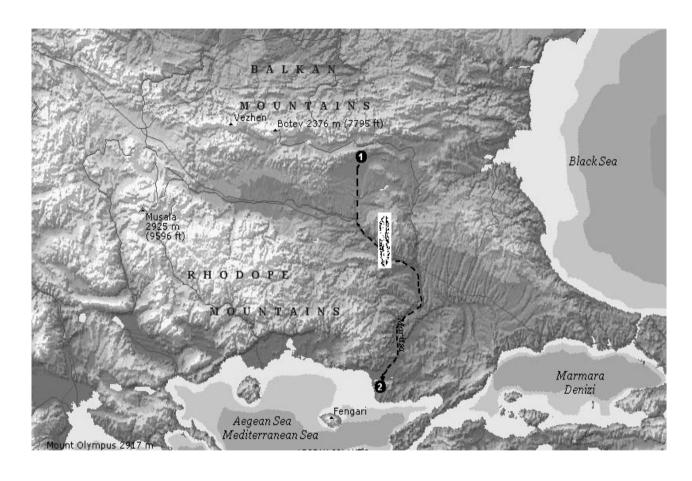


Figure 1-9 blades with high retouch. 1-4 Karanovo I-II; 5-9 Hoca Ceşme phase 2 $\,$



Map 1: Prehistoric settlements in the area under study – VII Millennium BC and VI Millennium BC. 1 – Karanovo; 2 – Okruzna bolnica; 3 – Azmak; 4 – Kapitan Dimitrievo; 5 – Hoca Çeşme; 6 – Asagi Pinar; 7 - Fikir tepe; 8 – Pendik; 9 – Ilipinar; 10 – Menteşe



Map 2: The exchange system area' between Northern Thrace (Karanovo - Azmak) and Eastern Thrace (Hoca Çeşme).

1. Karanovo; 2. Hoca Çeşme