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A CHALCOLITHIC STAMP SEAL  
FROM KARANOVO, BULGARIA

In the prehistoric tell called Karanovo, near Nova Zagora in Bulgaria, where excavations have been under way for several decades, a most interesting clay stamp seal has recently been uncovered (Pl. I, Fig. 1). It was found in situ in level VI, in a house destroyed by fire, which had also affected the seal<sup>1</sup>.

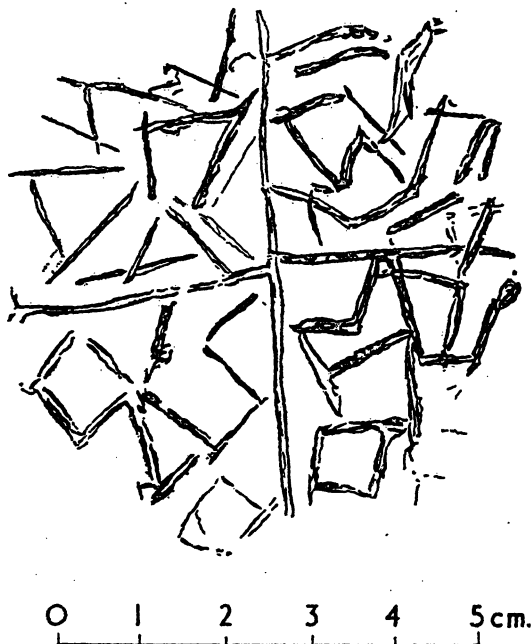


Fig. 1  
The design of the Karanovo seal

The object is typical of the class of handled stamp seals („Knopfsiegel“). Disc-shaped, it has a diameter of 6 cm., a thickness of 2 cm., and a decorated surface which is smooth and even. It has a short, round, conical handle, 2 cm. long. The ornamented surface

<sup>1</sup> V. Mikov — G. I. Georgiev — V. I. Georgiev, L'inscription du sceau circulaire de Karanovo — la plus ancienne écriture d'Europe, *Arheologia* 11, Sofia, 1969, 4—13 (in Bulgarian).

is partitioned into four quadrants of equal size by four incised straight lines which meet at the centre. All the four parts are covered by patterns which may represent legible signs.

Both the date of the find and its interpretation have given rise to debate. Its stratified context, the layer Karanovo VI, may be dated between very wide limits, from 3600 B. C. down to 2700 B. C.,<sup>2</sup> while its radiocarbon ( $C^{14}$ ) dating indicates the end of the fourth or the very beginning of the third millennium.

We know, however, that the stamp seal belongs to the second or more recent half of level (or period) VI. It has been stated that this level is parallel with the second half of the Vinča B period, and the corresponding phase of the related Roumanian cultures Gumelnița, Salcuța and Cucuteni<sup>3</sup>. According to another view, the Karanovo VI period is contemporaneous with Period C of the Vinča culture, corresponding to the first half of the so-called Vinča-Pločnik Phase, which may be dated between 2600 and 2300 B. C.<sup>4</sup> D. Srejović has established the parallelism of the Karanovo VI period with the beginning of Troy II, as also with a fairly early (late C) phase of the Vinča-Pločnik Period; he sees a chronological coincidence with a given phase of the Thessalian Subneolithic, the so-called Larissa-Rachmani transitional period, at about 2700 B. C.<sup>5</sup> According to the similar opinion of V. F. Titov, Karanovo V is contemporaneous with the beginning of the period Vinča-Pločnik C, whereas the following stage, Karanovo VI, falls in with the phase C2.<sup>6</sup> In our judgment this dating to the period Vinča C, and probably to its second half, is right, and preferable to the dating of G. I. Georgiev to Vinča B2. In absolute chronology this may be indicated as 2600—2500 B. C. Considering that the well-known Tărtăria tablets are dated on reliable grounds to the period Vinča B (and specifically to the transition between B1—B2),<sup>7</sup> we cannot agree with G. I. Georgiev, according to whom the Karanovo stamp seal is *earlier* than the Tărtăria tablets, and is the earliest known inscription in South-Eastern Europe.<sup>8</sup> In fact, the Tărtăria tablets are about a quarter of a millennium earlier!

<sup>2</sup> Ibid. 10

<sup>3</sup> G. I. Georgiev, *Archaeologia Austriaca* 42, 1967, 99.

<sup>4</sup> V. Popović, *Archaeologia Jugoslavica* 6, 1965, III. Tableau chronologique.

<sup>5</sup> D. Srejović, *Archaeologia Jugoslavica* 4, 1963, Pl. III.

<sup>6</sup> V. F. Titov, *Neolit Grecii*, Moscow 1969, 218.

<sup>7</sup> See in detail J. Makkay, *Orientalia* 37, 1968, 272—289.

<sup>8</sup> The arguments enlisted by him in favour of the dating of the Tărtăria tablets to the Early Bronze Age of the North-Eastern Balkans do not in our judgment hold

The interpretation of the designs, or possibly signs, on the surface of the stamp seal presents a much more difficult problem than its chronological position. In the opinion of V. I. Georgiev<sup>9</sup> the pattern decorating the surface of the stamp seal consists of a combination of various signs. He states that one may discern four or five signs in the upper right zone (if we follow the orientation of the figure), four signs in the lower right, four in the upper left, and five in the lower left, giving a total of seventeen or eighteen signs. In his view the *upper right zone* shows the head of an animal (possibly a horse, dog or roe) in profile, then a zig-zag line, the stylized figure of a quadruped or a bird with legs, two ears (or possibly feathers or horns) and tail, and finally two perpendicular lines. The zig-zag line may belong to the figure of the bird.

In the *lower right quadrant* he distinguishes an M-shaped line, with beside it a handle-like design, then the figure of a dove, and finally a square with a projecting line at each of two corners. The first and the third signs may also be parts of the second, whereas the handle can stand for a vessel (?).

In the *lower left zone* he discerns a square sign similar to that of the lower right segment, but in a different position. Another sign may be a zig-zag line, and finally there occurs a shape resembling the letter Z.

In the *upper left quadrant* one may discern a fork-shaped sign, another resembling the letter A, a stylized animal shape, and finally one similar to a hut. Unfortunately, V. I. Georgiev does not indicate in his report the partition of the inscription between the signs which he recognizes. On the other hand, he states that a proportion of the 'signs' have exact or approximate parallels among the Cretan signaries, and that the Karanovo stamp seal is the earliest European relic associated with writing.

In our judgment, this statement raises two particular doubts. One springs from the observation that no signs of similar pictographic character have so far been found from the time in which this stamp seal was made. In the Ancient East pictographs or hieroglyphs were already then extinct, while on Crete they were not to come into use for some considerable time. In order to accept the argument of V. I. Georgiev, therefore, we must suppose either that the 'signs' of the Karanovo stamp seal were produced under the

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good. For the detailed analysis of the problem see J. Makkay, *The Tordos Late Neolithic Group of Signs*, Alba Regia 10, Székesfehérvár 1970, 7 sqq.

<sup>9</sup> *Arheologia* 11, 1969, 10—12

very late 'posthumous' influence, delayed for more than 200 years, of Mesopotamian pictography; or that they are the documents of an independent and hitherto unknown system of script. The first hypothesis is not immediately ruled out by chronological considerations, since the pottery signs of the Vinča culture, dating to the period Vinča C, are undoubtedly connected with Mesopotamian pictography. In this case, however, we may suppose Mesopotamian influence to have been already at work in the transition between the periods Vinča B1 and B2, when there occurred the so-called Tărtăria effect which produced the Tărtăria tablets. But the signs which were used on pottery in the following period C were evolved under additional influences, now mainly from Anatolia and North-Western Syria.

The second and more basic objection is that the 'signs' distinguished by V. I. Georgiev do not seem to have parallels among the Mesopotamian pictographs. It is perhaps needless to emphasize that the Karanovo stamp seal is too ancient to allow any connection with even the earliest Cretan system of writing.

For these reasons we suggest a different solution of the problem of the undoubtedly extremely important Karanovo stamp seal. As has been pointed out by G. I. Georgiev, clay stamp seals of a similar shape and size were uncovered at Karanovo, and also in other Bulgarian sites<sup>10</sup>. In fact, the Late Neolithic — Chalcolithic vessels of the periods Karanovo IV/V/VI also display painted or incised pottery marks, which may be connected with the above-mentioned pottery marks of the period Vinča C. Unfortunately, the majority are not yet published. The earlier or Neolithic clay seals of South-Eastern Europe, from the period Sesklo/Starčevo/Körös, are oval, oblong and rarely round, and invariably show meander motifs<sup>11</sup>. They are essentially similar to the even earlier stamp seals from Çatal Hüyük (Fig. 2) and Hacilar<sup>12</sup>. This very fact prevents us from attributing the round clay seal found in Hungary, on the Kotacpart-Vata farm, to this early period; it is rather a near parallel of the Karanovo specimen<sup>13</sup>.

<sup>10</sup> G. I. Georgiev, *Arheologia* 11, 1969, 9, note 2

<sup>11</sup> Ibid. notes 7—9: Ida Kutzián, *The Körös Culture*, Budapest 1944—1947, Pl. XLVI: V. Milojević, *Jahrbuch des Römisch-Germanischen Zentralmuseums* 11, Mainz 1964, Abb. 1, 2, 3, 4, 5, Abb. 2, 3—8: Chr. Zervos, *Naissance de la civilisation en Grèce I*, Paris 1962, Fig. 296a: Ch. Delvoye, *Mélanges d'archéologie et d'histoire offerts à Charles Picard I*, Paris 1949, Fig. 1.

<sup>12</sup> Milojević op. cit.: J. Mellaart, *Çatal Hüyük, A Neolithic Town in Anatolia*, London 1967, 220, Pl. 121

<sup>13</sup> I. Kutzián op. cit. Pl. XLVI 1a—b

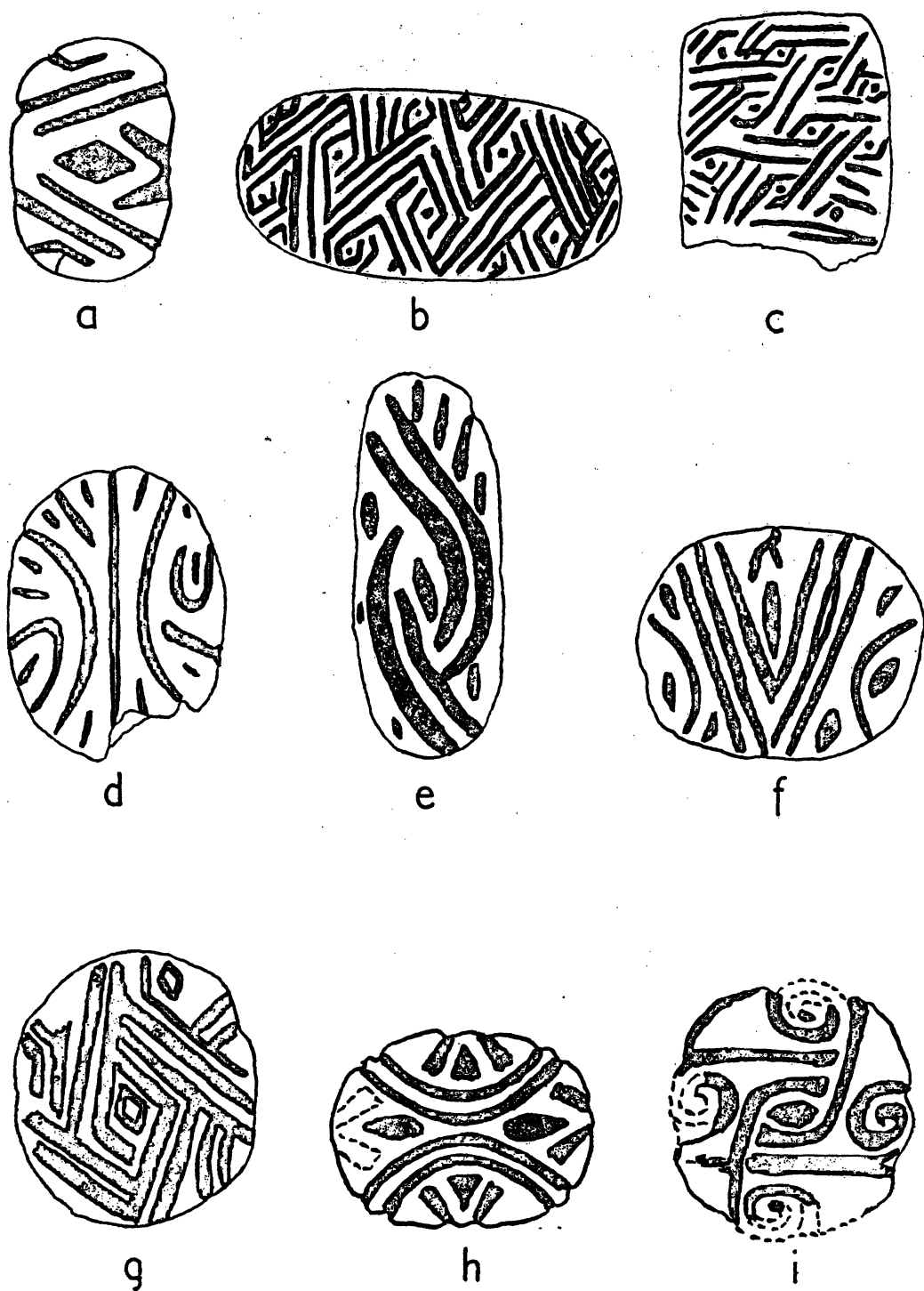


Fig. 2

Neolithic baked clay seals from Çatal Hüyük (Levels VI B—II)

In these earliest stamp seals the partition of the surface is rare; a single object from Çatal Hüyük, Levels II—VI, shows a symmetrical dual division of the geometrical motif (Fig. 2f)<sup>14</sup>, or its partition similar to the so-called whirl-pattern (Fig. 2i)<sup>15</sup>. There is an interesting and rare exception, a stamp seal found at Tsani Magoula in Thessaly, dated to Tsani II ("Néolithique Ancien III"), which has an isoceles cross in the centre, perhaps as a forerunner of the division of the surface into four (Fig. 3a)<sup>16</sup>. It is worth

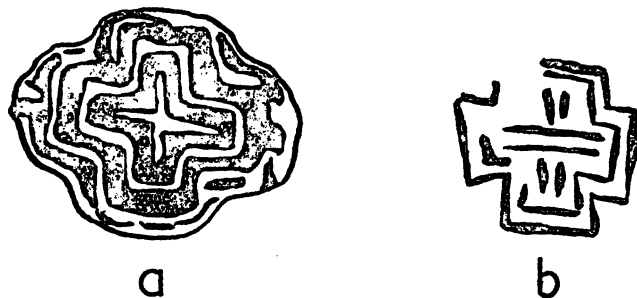


Fig. 3

Seals from Thessaly (a) and Transylvania (b)

noticing that this relatively early specimen has very similar but later parallels, broadly contemporary with the Karanovo stamp seal; from Transylvania (Fig. 3b)<sup>17</sup>, and from Hungary (a site called Szeghalom-Kovácsalom)<sup>18</sup>. These stamps, however, were not used for the same purpose as the early Mesopotamian stamp seals; for they did not serve to mark vessels as wares but rather to paint the human body. On Crete, the earliest stamp seals are equally conspicuously deficient in pottery-marking stamps, and decoration with crossing lines is also rare in the earliest periods<sup>19</sup>. On the other hand, as early as the period contemporary with Uruk V there were found seal impressions on Anatolian vessels<sup>20</sup>, but no exact parallels so far with the Karanovo piece.

<sup>14</sup> J. Mellaart op. cit.

<sup>15</sup> Ibid.

<sup>16</sup> Chr. Zervos op. cit. I, 299

<sup>17</sup> G. Bakó, *Studii și Cercetări de Istorie Veche* 19, București 1968, 649—653

<sup>18</sup> A friendly oral communication of Kornél Bakay: excavation of 1969: the find belongs to the so-called Tisza culture, contemporaneous with the Early Vinča C Period.

<sup>19</sup> V. E. G. Kenna, *Cretan Seals*, Oxford 1960, 13

<sup>20</sup> J. Mellaart, *The Chalcolithic and Early Bronze Age in the Near East and Anatolia*, Beirut 1966, p. 44, cp. Fig. 30, 20 on p. 83

Should we suppose, however, that the surface of the Karanovo stamp seal is covered not by signs but by symmetrical motifs situated in the four quadrants, which relate to each other, we may find very good analogies. Tepe Gawra Area D has yielded a round seal having a quadripartite, geometrical and symmetrical pattern (Fig. 4a)<sup>21</sup>. A parallel from Tall i Bakun, having triangular motives in the quadrants, is essentially similar and contemporary (Fig. 4b)<sup>22</sup>. At the bottom of the transitional level of Susa many similar specimens have been found; they are essentially quadripartite, showing figural designs, among others being bodies of birds and animal shapes, besides geometrical motifs, which are always arranged symmetrically (Fig. 4c—g)<sup>23</sup>.

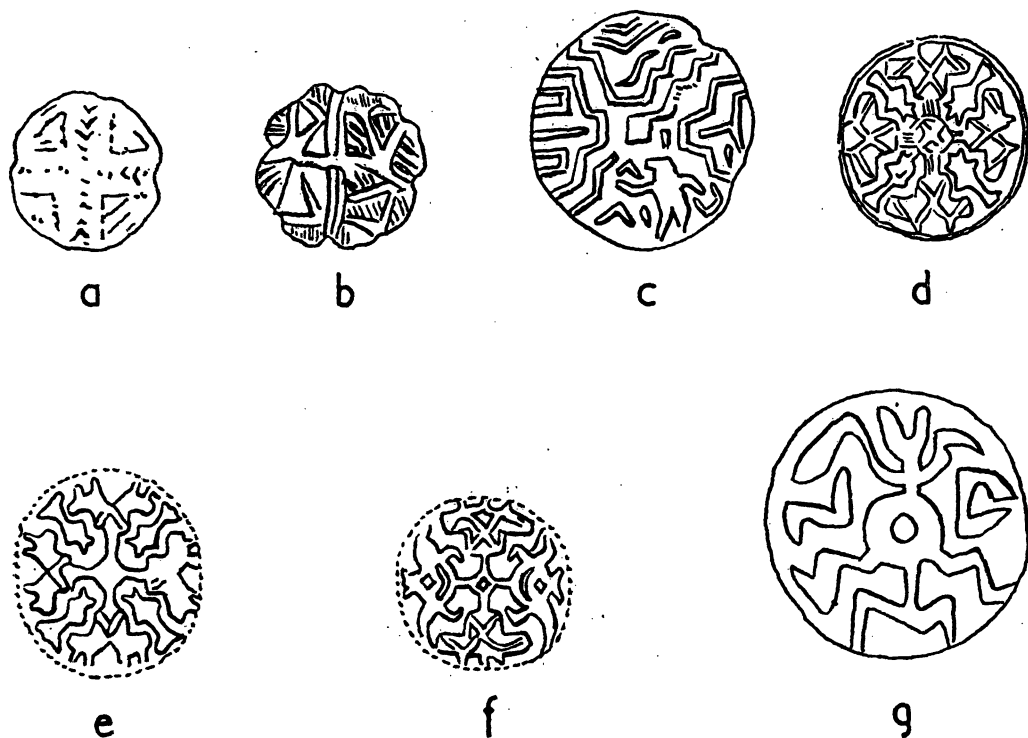


Fig. 4

Seals from Tepe Gawra (a), Tall i Bakun (b) and Susa (c—g)

In our judgment, all these finds indicate that comparable examples of stamp seals of this type have to be sought in the Near East. More specifically, such seals, which are later in the Amuq

<sup>21</sup> A. J. Tobler, *Excavations at Tepe Gawra II*, Philadelphia 1950, Pl. CLIX 28. The Al 'Ubaid Period.

<sup>22</sup> P. Amiet, *La glyptique mésopotamienne archaïque*, Paris 1961, Pl. 3, 76

<sup>23</sup> *Ibid.* Pl. 6, 126, 133 A-B-C, 135, etc.

Plain, show good parallels with the Karanovo piece: they occur in the phases Amuq F and G, corresponding to the Protoliterate a-b-c-d Periods, or to the very beginning of the Early Dynastic.

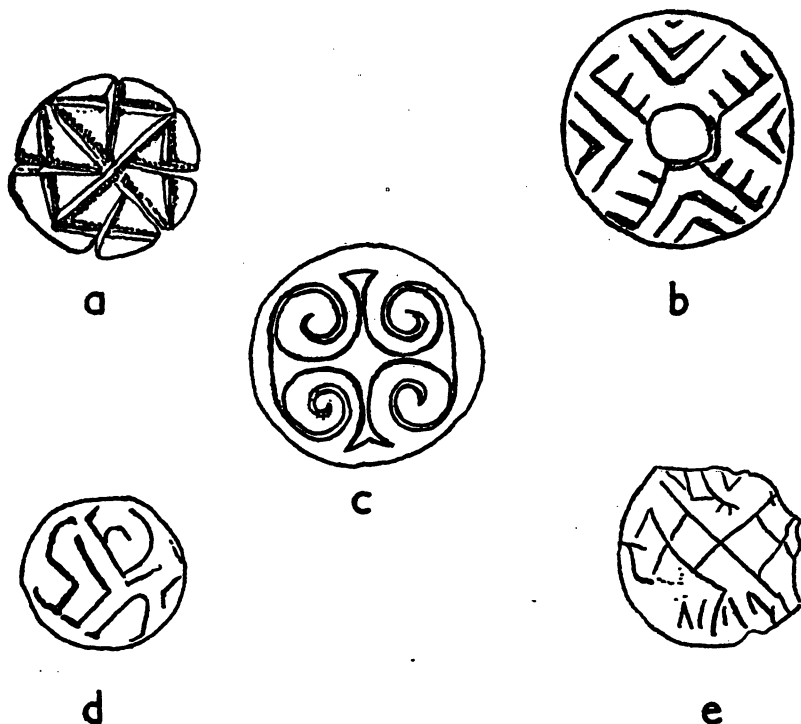


Fig. 5

Seals from the Amuq Plain  
(Phases F and G)

They are generally quadripartite, and their ornament is similarly symmetrical, and partly geometrical (Fig. 5a—c)<sup>24</sup>; but the partly or entirely figural decoration of some of them strongly reminds us of the Karanovo stamp seal both in its structure and in the character of the figural shapes (Fig. 5d)<sup>25</sup>. The best analogy is perhaps found in a stone seal from the Amuq G Period, which, though smaller than the Karanovo piece, is almost identical with it in respect of its divided decoration (Fig. 5e)<sup>26</sup>: "The impression shows quadrants formed by two intersecting straight lines, with the same linear motif in each opposing pair: an X-shaped cross at left and right and

<sup>24</sup> R. J. Braidwood and L. S. Braidwood, *Excavations in the Plain of Antioch I, The Earlier Assemblages, Phases A—J*, OIP LXI, Chicago 1960, Fig. 191, 4, 5; Fig. 253, 5, 6, 7 (of stone)

<sup>25</sup> *Ibid.* Fig. 193, 9 (of bone)

<sup>26</sup> *Ibid.* Fig. 253, 13 (of stone)



a quadruped (?) above and below"<sup>27</sup>. In our view, the decoration of the quadrants of the Karanovo stamp seal is essentially of the same character. On the whole, these finds present the distortion of what were doubtless originally obvious pictures into a complicated composite pattern of straight lines, triangles and squares, or schematic figures, as the case may be.

Aware of the fact that it is precisely this Vinča C culture or period which shows many and important connections with the archaeological material of the periods F and G of the Amuq Plain — especially in some vessel forms and in the rippled and dark burnished wares — the stamps of the Amuq region referred to may be regarded as the nearest parallels, and possible models, of the Karanovo stamp seal. This suggestion cannot be dismissed on chronological grounds. Naturally the immediate connection cannot be proved yet; but in South-Eastern Europe there are neither earlier nor contemporary analogies. The Karanovo stamp seal therefore seems to be a representative find of the South-East European Chalcolithic, which illustrates very well the most characteristic and historically most important feature of the Vinča C period, namely the series of Eastern cultural impacts repeated through almost the whole existence of the Vinča culture. Thus the Karanovo stamp seal may be a local find, manufactured on the spot through acquaintance with the above-mentioned stamp seals of the Amuq type, or of specimens similar to them and produced under their influence<sup>28</sup>.

<sup>27</sup> Ibid. p. 331

<sup>28</sup> A Middle Bronze Age clay stamp seal with incised quadrupeds has recently been published from Bağbaşı, Lycia: M. J. Mellink, *AJA* 74, 1970, 250, Pl. 58, fig. 23b.