

# COMPARATIVE ANALYSIS OF THE EARLY CHALKOLITHIC POTTERY FROM RADINGRAD WITH SYNCHRONOUS VILLAGES OF THE LOWER DANUBE

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**Abstract.** *The Tell Radingrad in the Northeastern Bulgaria is one of the most archaeological representative archaeological sites related to Polyanitsa culture. This communication presents a more detailed typology of pottery of 1st horizon, dated in Phase III of Polyanitsa culture, Early Eneolithic. Vessels are divided into groups with basic forms. Description of the decoration includes techniques used and typical motives. The submitted shapes and decorative motives are compared with the ceramic materials found in the settlement mounds in Polyanitsa and Ovcharovo of Targovishte district; in Ruse, Cherven and Shtraklevo of Ruse district (Northeastern Bulgaria) with those from the settlements in Djuliuica, Kachitsa and Hotnitsa (Central North Bulgaria) and findings at Boyan A, Vladichaska, Tangaru and Vidra (Romania). Comparative analysis brings to conclusion that in large territory - North-central Bulgaria, Northeastern Bulgaria and Muntenia (Romania) is formed Early Chalkolithic cultural complex which we call "Polyanitsa - Boyan". In this complex there are local groups. During this period the territory of Northwestern Bulgaria develops the Gradeshnitsa culture and in the neighbouring northern Oltenia region - Vadastra culture - a later stage. We can speak of the formation of another cultural complex Gradeshnitsa - Slatino - Dikilitash covering Northwest and Southwest Bulgaria. Direct contacts between societies late Vadastra and the population Polyanitsa - Boyan are not attested by archaeological discoveries - a problem which remains open for future research.*

**Keywords:** *Radingrad, Early Chalcolithic, Polyanitsa culture, pottery, comparative analysis.*

Radingrad mound is located in the basin of the Beli Lom River, Northeastern Bulgaria. It is one of the most representative archaeological sites related to Polyanitsa culture (map 1). Studies conducted by Totyo Ivanov (1974-1977 and 1980), lead to the establishment of five construction horizons<sup>1</sup>. This message gives a more detailed attention to the types of pottery of I st horizon dated to the end of the Early Chalcolithic Phase III of Polyanitsa culture. The analysis includes graphic images of the researcher and restored vessels from the Razgrad Museum fund.

According to its purpose, the vessels are divided into groups designated by Roman numerals. The registered basic forms in each group are marked with consecutive Arabic numerals.

## I. Dishes

In the first group, comprising the dishes, are 5 distinct forms. The first two I.1, I.2. (Fig.1/1-3) are conical vessels with walls sloping differently (30-75°), with its right or thickened inside mouth. Shape I.3. includes dishes with profiled side and curved mouth (Fig.1/4-5). Then follow dishes I.4. with a cylindrical upper and conical lower portion (Fig.2/1). Shape I.5. is similar to the preceding one, but has a highly profile zone between two body parts (Fig.1/6).

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<sup>1</sup> Totyo Ivanov, "Tell Radingrad", in *Materialen zur Allgemeinen und vergleichenden Archäologie*, nr.13/1982, p.166.

## II. Bowls

The second group is formed by 9 bowls with established shapes. The first shape II.1. are bowls with cylindrical and conical top, concave lower part (Fig.2/2). The diameter of the mouth is larger than 15 cm. The next shape II.2. are cylindrical-conical bowls with short foot, hollow inside (Fig.2/3). By II.3. and II.4. are marked cylindrical-conical vessels with a cylindrical neck and sharp profiled transition (threshold) from the neck to the body (Fig.1/8-9). They vary according to the height of the neck. Shape II.5. unites biconical vessels with a rounded area at the maximum diameter of the body (Fig.1/7) and shape II.6. are similar vessels, but without the mentioned curvature (Fig.2/4). We see also biconical bowls with concave bottom part - II.7. (Fig.2/5). The latter two shapes II.8. (Fig.2/6) and II.9. (Fig.1/10) are associated with biconical bowls having short or higher neck inside inclined.

## III. Small and deep bowls with a diameter of 10-12 cm at the mouth

The group includes three forms: III.1. - Small, slightly biconical bowls with rounded top (Fig.2/7); III.2. - Similar vessels, but with a lower concave part (Fig.1/11; 2/8) and III.3. - Vessels with clear biconicity (Fig.1/12-13).

## IV. Deep and tall vessels, which can be defined as cups

Here are two distinct forms: IV.1. - Vessels with cylindrical neck, bulging upper portion and conical bottom, where the diameter of the mouth is about 14 cm (Fig.2/9) and IV.2. - Vessels having a cylindrical neck, cylindrical upper portion and an arm, and a conical bottom (Fig.3/1).

## V. Open deep vessels - pots (with a height greater than 2/3 of the maximum diameter of the body)

The group of pots includes biconical vessels with rounded upper part - V.1. (Fig.4/1); vessels with short cylindrical neck, profiled transition (threshold) to the body, upper cylindrical and lower conical part - V.2. (Fig.3/2) and biconical vessels with a short neck – V.3. (Fig.3/3).

## VI. Deep sealed vessels

They have two basic forms: VI.1. - Biconical with a cylindrical neck, above 5 cm high (Fig.4/2) and VI.2. - Biconical with a neck tilted inward (Fig.4/3).

Interest attract the following two groups of deep vessels VII and VIII, whose functionality is subject of discussion. These are cylindrical vessels with a short neck - VII.1. (Fig.4/4) and conical vessels in which the diameter of the bottom is slightly smaller than the diameter of the mouth, with straight - VIII.1. (Fig.4/5) or slightly rounded thick walls – VIII.2. (Fig.4/6).

Particularly representative of the age and of the cultural background are the the repositories, Group IX. We notice two typical forms: vessels with a foot, profiled transition from neck to body

and an upper cylindrical portion - IX.1. (Fig.4/7); Vessels with a leg where the top is slightly bent inwards - IX.2. (Fig.3/4). Along with the repositories are used covers and trays. Hemispherical caps with a cylindrical ledge are found - X.1. (Fig.3/5; 4/8); conical caps with a cylindrical ledge X.2. (Fig.3/6) and flat tops with a cylindrical handle - X.3. (Fig.4/9). Trays are cylindrical in shape. They differ according to the shape of the top - usually curved at straight angle, thickened or extended inward - XI.1. (Fig.3/7; 4/10) and XI.2. (Fig.3/8; 4/11).

According to the applied techniques are separated 7 groups of decoration: I. Barbotine II. Relief, III. Incised, IV. Excised (cut), V. Hacks, VI. Piercing, VII. Drawing with graphite. To mark the individual motifs we use the same combination of Roman and Arabic numerals, as at the description of the shapes.

Sprayed (Fig.4/1) - I.1. or organized in vertical strips barbotine -I.2., relieved tapes with holes - II.2. (Fig.1/13), round and elliptical relief buds - II.3.1. (Fig.1/8) and II.3.2., some with a dent in the middle - II. 3.3. (Fig.4/1) present the decoration of the first two mentioned groups. By incision are made vertical or oblique lines - III.1. (Fig.1/8, 14), III.2. (Fig.5/1, 2) and a motif of two diamonds located below each other - III.3. (Fig.5/3). The fourth group of decoration is typical with excised strips alternating with strips of the preserved surface of the vessel. In some cases both types of strips are the same in width IV.1., but dominate the vessels in which strips with retained surface of the vessel are narrower IV.2. These strips are horizontally- IV.1.1. (Fig.5/4), IV.2.1. (Fig.5/5), obliquely IV.1.2. (Fig.5/4), IV.2.2. (Fig.5/6) or they are arranged at right angle - IV.3. (Fig.5/5). Common motive is with strips at right angle and extended portion forming a "Γ" letter - IV.4. (Fig.5/6). Sometimes appears a strip from the surface of the vessel, approximately 2 cm wide in the same form "Γ" - IV.5. (Fig.5/7). Noteworthy is the motive of diamonds with preserved surface of the vessel, vertically below each other - IV.6. (Fig.5/8). There are motives with wide cut strips inlaid with white or red fabric. - IV.7. (Fig.5/9, 10). Incisions are short lines set along the mouth edge of the vessels - V.1. or triangular and elliptical traces of a tool by which are cut strips with preserved surface of the vessel-V.2., V3. (Fig.6/1-2). Similar is the technique that produces spiking. Instruments used with peak shaped differently. The triangular spiking dominate with peaks down - VI.1. (Fig.5/1-2) or left - VI.2. (Fig.6/3), combined or not with an incised line. Other motives are composed of round, oval or diamond piercings - VI.3, VI.4., VI.5. (Fig.6/4-5). Graphite decoration is positive or negative. Positive motives are horizontal strips that are grouped by two, three VII.1. (Fig.6/6) or more -VII.2. (Fig.6/7), mesh in diamonds -VII.3. (Fig.6/8), spirals - VII.4. (Fig.6/9) and unfolded spirals VII.5. (Fig.6/10). In negative are realized a spiral and broad strips -VII.6., VII.7. (Fig.6/11).

The submitted shapes and decorative motives are compared with the ceramic materials found in the settlement mounds in Polyanitsa and Ovcharovo of Targovishte district; in Ruse, Cherven and Shtraklevo of Ruse district (Northeastern Bulgaria) with those from the settlements in Djuliunica, Kachitsa and Hotnitsa (North Central Bulgaria) and findings at Boyan A, Vladichaska, Tangaru and Vidra (Romania).

The results of the comparative analysis show that dominate similarities with the settlement mounds from the nearby area - Polyanitsa and Ovcharovo. These similarities relate to the cylindrical-conical bowls with and without cylindrical neck - II.1., II.4. (Fig.7/1-2, 11-12) and for the small biconical bowls - III.1. and III.3. (Fig.7/3-5, 13-14). In these archaeological sites appear vessels with necks, possibly cups - IV.2. (Fig.8/6, 15), deep conical vessels with thick walls - VIII.1-2. (Fig.7/7-8, 16), repositories with upper cylindrical portion IX.1. (Fig.7/9, 17), covers X.1., X.2.<sup>2</sup> and cylindrical trays XI.2. (Fig.7/10, 18). There are many common decorative motives, among which we mention the decoration with incised lines, graphite drawing of strips and spiral, and almost all motives with incised strips<sup>3</sup>.

In a small percentage are the common elements with ceramics from the basin of Yantra (Central North Bulgaria). Conical and cylindrical-conical dishes - I.1., I.2., I.4., small biconical bowls - III.1. and III.3., deep biconical vessels V.1. occur in Kachitsa<sup>4</sup>. In Hotnitsa<sup>5</sup> are found similar cylindrical-conical bowls with neck - II.4. In Hotnitsa<sup>6</sup>, Kachitsa<sup>7</sup> and Djuliunica<sup>8</sup> we establish analogies with ornaments with relieved strips, with round and diamond pricks, for the motives with exceed strips placed obliquely - IV.1.2., IV.2.2.

Comparing the ceramic materials from Radingrad with the pottery of Ruse region, we note matches for the repositories and the deep open vessels with cylindrical-conical and bi-conical shape and neck, known in the village at Cherven<sup>9</sup>. In Rousse<sup>10</sup> and Cherven<sup>11</sup> we notice identical motives

<sup>2</sup> Henrieta Todorova, Vasil Vasilev, Zoia Ianushevich, Meri Kovacheva, Petar Valev, *Ovcharovo. Razkopki i proucvania*, VII, Sofia, 1983, fig.35/6-7.

<sup>3</sup> *Ibidem*, fig.33-35.

<sup>4</sup> Petar Lestakov, "Keramicniat kompleks na rannohalkolitnoto jiliste ot obect Kacitsa, V. Tarnovo.", in Velikotarnovskiia universitet "Sv. Sv. Kiril i Metodii" i balgarskata arheologia, nr.1/2010, fig.1a; 2a, r; 3b; 4a, r.

<sup>5</sup> Valka Ilceva, "Tri eneolitni selista v zemlisteto na s.Hotnitsa, Velikotarnovsko", in Tracia i sasednite raioni prez neolita i halkolita, 2002, fig.2/18, 21.

<sup>6</sup> *Ibidem*, fig.1-2.

<sup>7</sup> Petar Lestakov, op.cit., fig. 6a, б, д; 5r.

<sup>8</sup> Rumen Pejkov, "Earlier Chalkolithic Ornamentation on the Pottery from Dzuljunitsa Tell (North Central Bulgaria)", in Early Symbolic Systems for Communication in Southeast Europe, 2003, fig. 3/38.

<sup>9</sup> Dimitar Ivanov, Dimitar Cernakov, "Praistoricesko i srednovekovno seliste s nekropol v mesnostta "Bei ciflik" krai s.Cerven, Rusensko", in Izvestia na regionalen istoriceski muzei Ruse, nr.XI/2007, fig.11/6, 8, 15; fig.12/14.

<sup>10</sup> Volodia Popov, *Periodizatia i hronologia na neolitnite i halkolitnite kulturi ot porecieto na r. Rusenski Lom*, Ruse, 1986, fig.176/55-56, 177/70, 88/89.

<sup>11</sup> Dimitar Ivanov, Dimitar Cernakov, op.cit., fig.11/15, 10/7, 13/3, 12/17.

at cut strips IV.1.2, IV.2.1., IV.2.2. and IV.3; with round spiking VI.3. and with graphite strips VII.2., VII.3.

Similarities north of the Danube are found for vessels-repositories with foot and for cylindrical-conical bowls with a profiled transition to the body at Vladichyaska<sup>12</sup> and Boyan A<sup>13</sup>. At settlements near Spantsov<sup>14</sup> and Vladichyaska are known covers with cylindrical ledge and cylindrical handle, close to those found on the territory of Bulgaria. Most parallels can be given to cut and pierced decoration. Identically are made cut strips (motives IV.2.1, IV.4.) on ceramics at Bogata<sup>15</sup>, Boyan A<sup>16</sup>, Vladichyaska<sup>17</sup> and Vidra<sup>18</sup>, and triangular and circular piercings on vessels from Tangaru<sup>19</sup>. These observations are complemented by other correspondences established between materials from Polyanitsa and Ovcharovo, on one hand and those of Romania, on the other hand. They are related to the use of similar vessels - fabric, small pots with foot and some types of covers. Common are a number of other motives with carved ornament. Graphite decoration in Muntenia appears at the end of Vidra phase of Boyan culture (Tangaru Level IIIc)<sup>20</sup>.

Benchmarking and presented analogies lead to the following conclusions:

- The predominance of similarities with Polyanitsa and Ovcharovo of Kamchiya river basin testifies that together with Radingrad these settlements belong to the same group of population.
- Common features with other areas - Central North Bulgaria and Muntenia show that during the Early Chalcolithic for a vast territory become typical some major trends in ceramic production. Becomes a process of cultural convergence, most likely through an intensive exchange and regular contacts. A larger community is formed to that we offer the name cultural complex "Polyanitsa - Boyan." In this complex there are local groups with their own characteristics, the result of traditions inherited from the previous period, relations with neighbouring communities and the new southern influences<sup>21</sup>.

During this period the territory of Northwestern Bulgaria develops the Gradeshnitsa culture and in the neighbouring northern Oltenia region - Vadastra culture - a later stage. We can speak of the formation of another cultural complex Gradeshnitsa - Slatino - Dikilitash covering Northwest

<sup>12</sup> Eugen Comșa, *Neoliticul pe teritoriul României. Considerații*, București, 1987, fig.44/6, 9.

<sup>13</sup> Eugen Comșa, *Istoria comunităților culturii Boian*, București, 1974, fig.34/96.

<sup>14</sup> *Civilizația Boian pe teritoriul României*, Călărași, 1999, cat.127-128.

<sup>15</sup> Eugen Comșa, "Săpături de salvare la Bogata și Boian", in MCA, nr.V/1959, fig.3/9.

<sup>16</sup> Idem, "Săpături arheologice la Boian – Grădiștea Ulmilor", in MCA, nr.VI/1959, fig.3/5.

<sup>17</sup> *Civilizația Boian pe teritoriul României*, Călărași, 1999, cat.133.

<sup>18</sup> Eugen Comșa, "Considerații cu privire la evoluția culturii Boian", in SCIV, nr.V/1954, 3-4, fig.16/2.

<sup>19</sup> Dumitru Berciu, *Contribuții la problemele neoliticului în România în lumina noilor cercetări*, București, 1961, fig.178/2.

<sup>20</sup> Idem, op.cit, p.394.

<sup>21</sup> Evgenia Naidenova, "Actual research status of Chalcolithic cultures Polyanitsa and Boian", in Studii de preistorie, nr. 7/2010, p.71-75.

and Southwest Bulgaria. Ceramic type Gradeshnitsa has analogies with pottery, found in Rast - a fact proving links in this direction. Direct contacts between societies and late Vadastra and the population Polyanitsa - Boyan are not attested by archaeological discoveries - a problem which remains open for future research.

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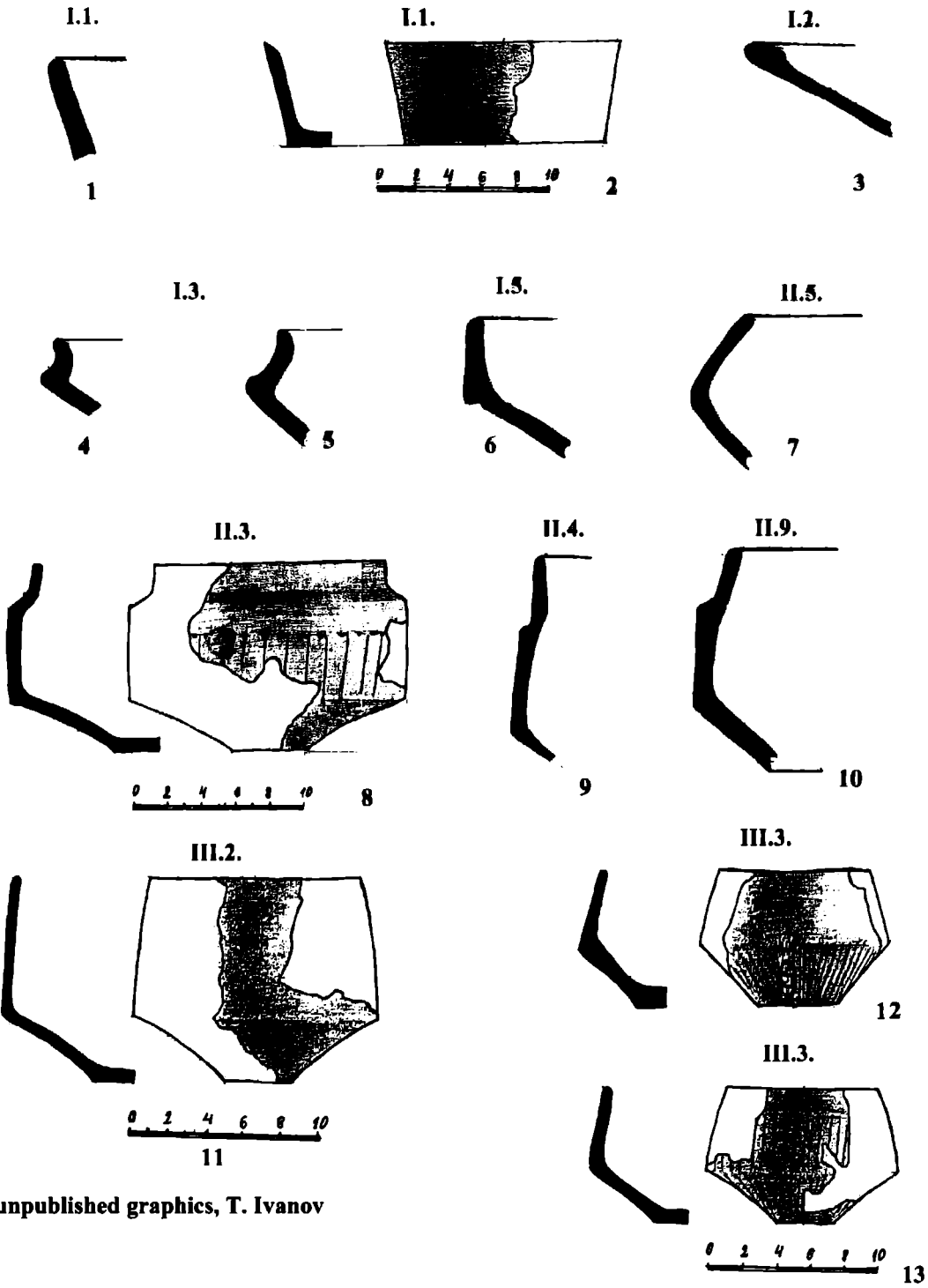


Fig.1. Basic forms of vessels from Tell Radingrad, I horizon.

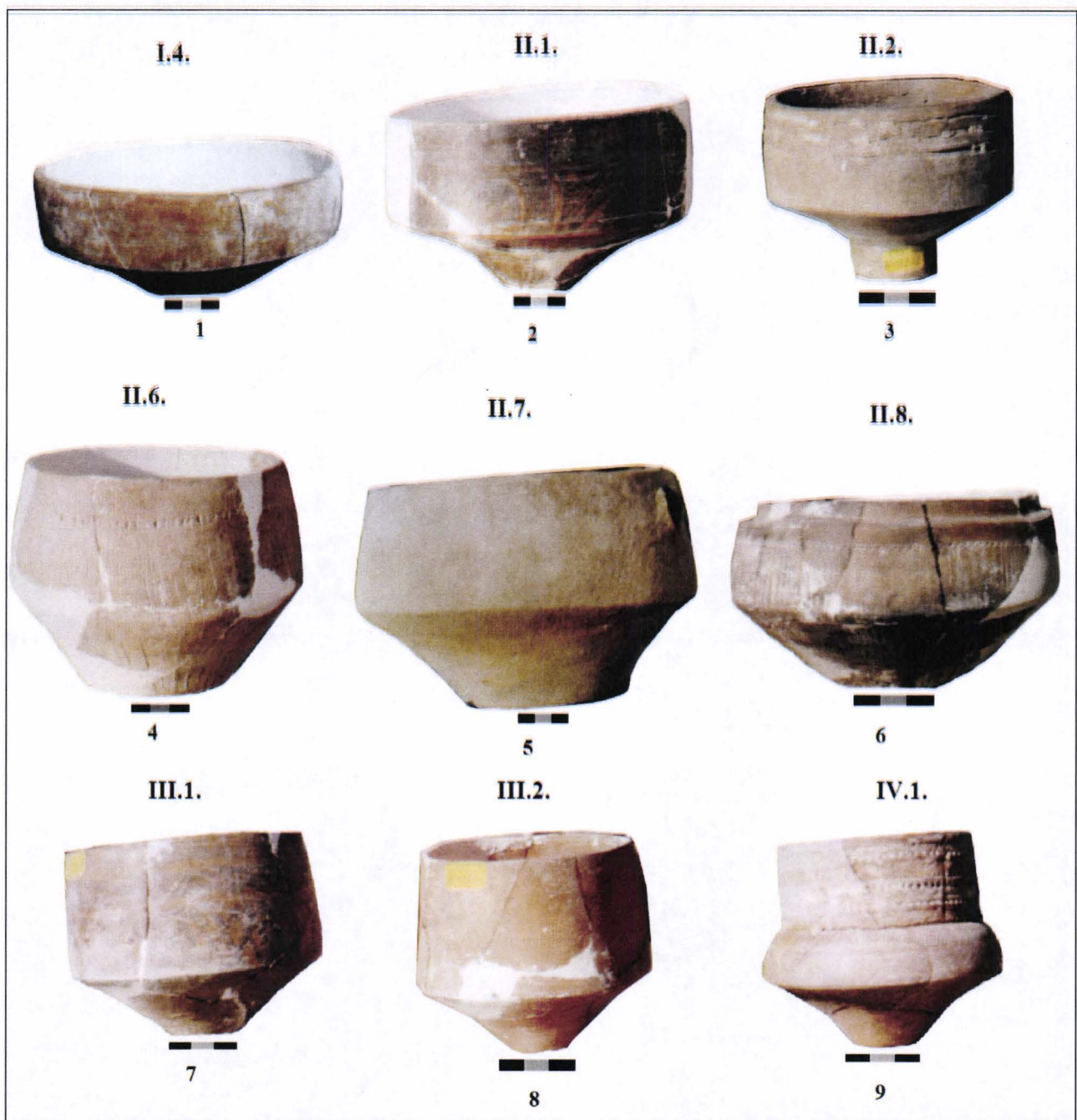


Fig. 2. Basic forms of vessels from Tell Radingrad, I horizon.



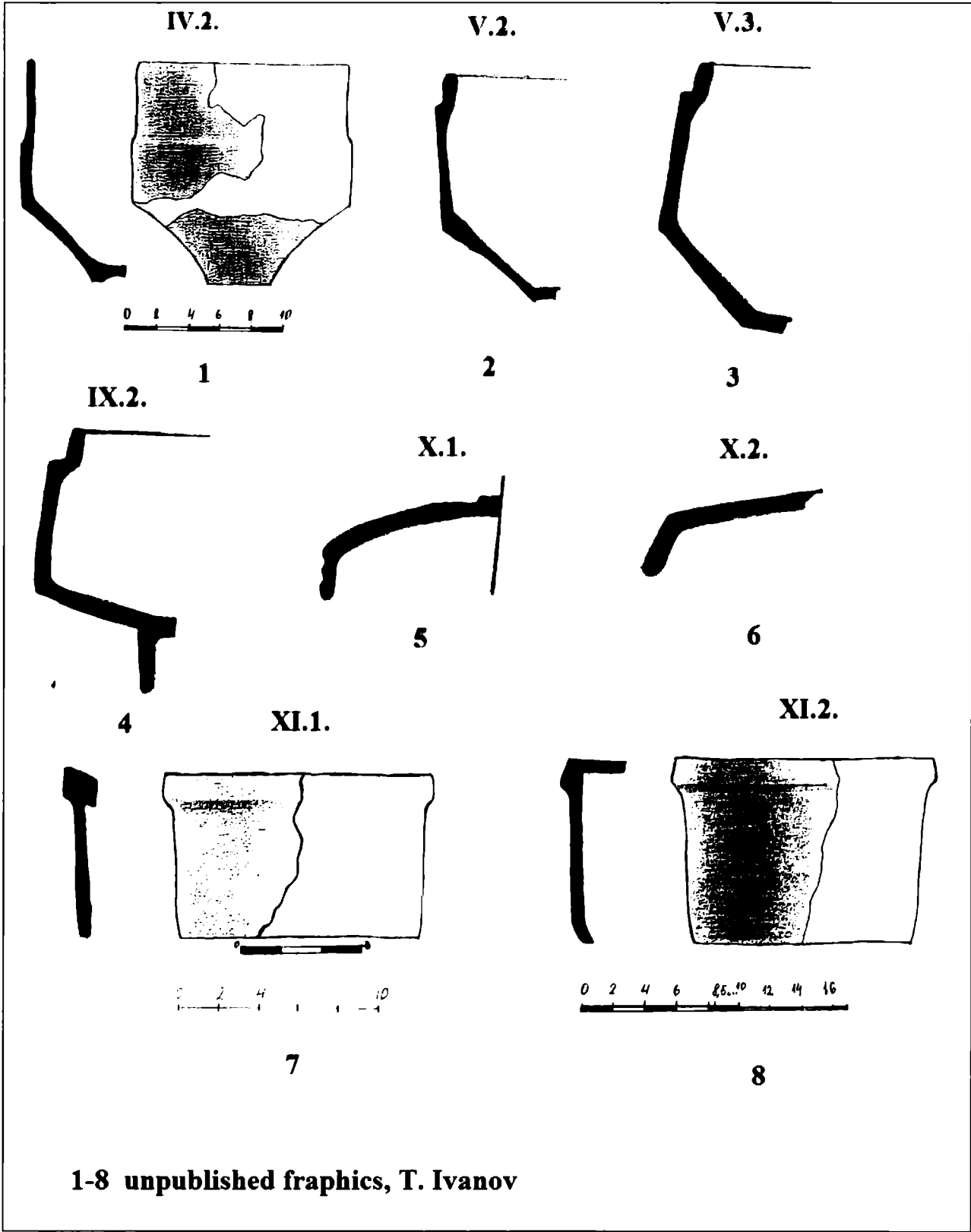


Fig. 3. Basic forms of vessels from Tell Radingrad, I horizon.

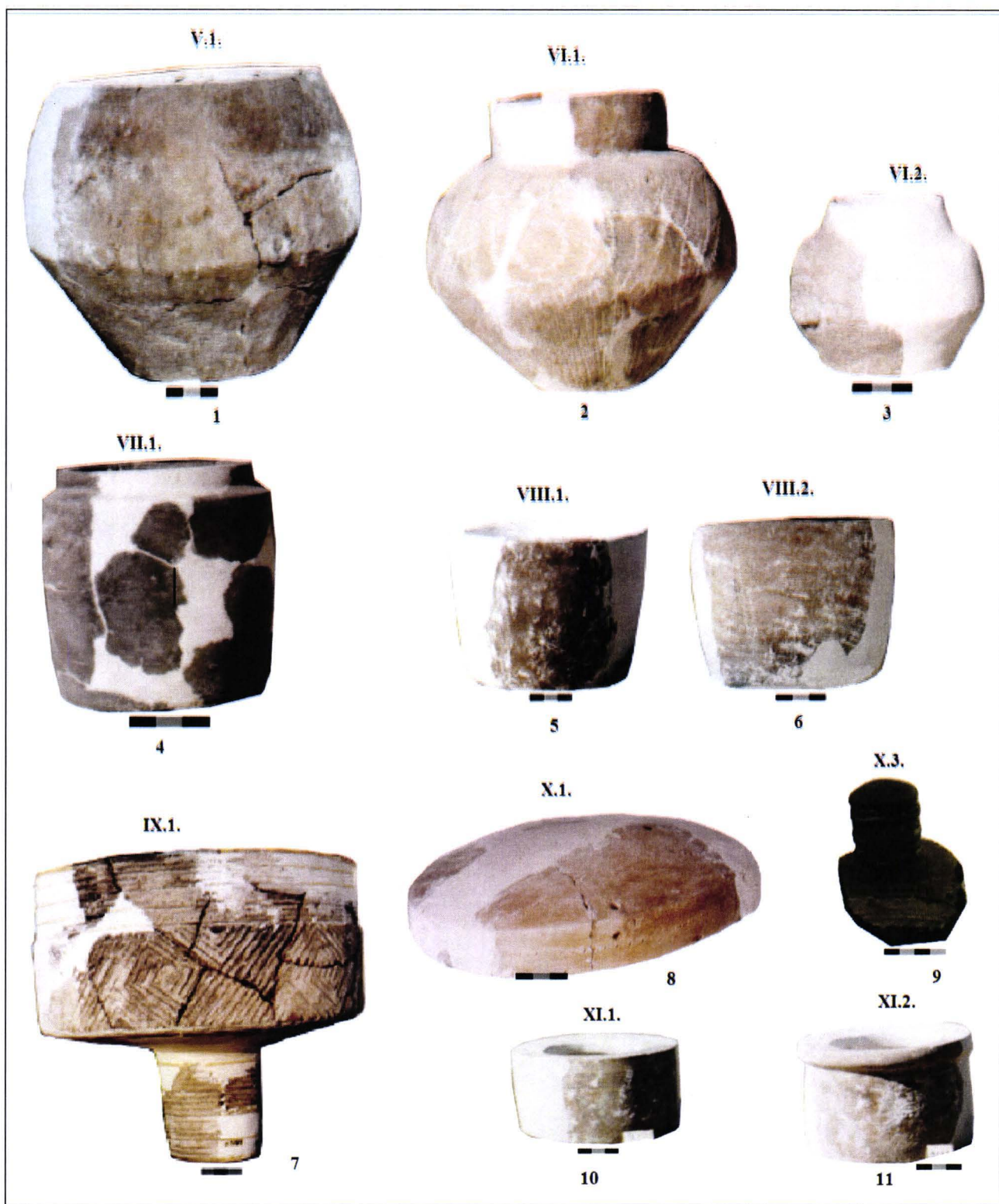


Fig. 4. Basic forms of vessels from Tell Radingrad, I horizon.

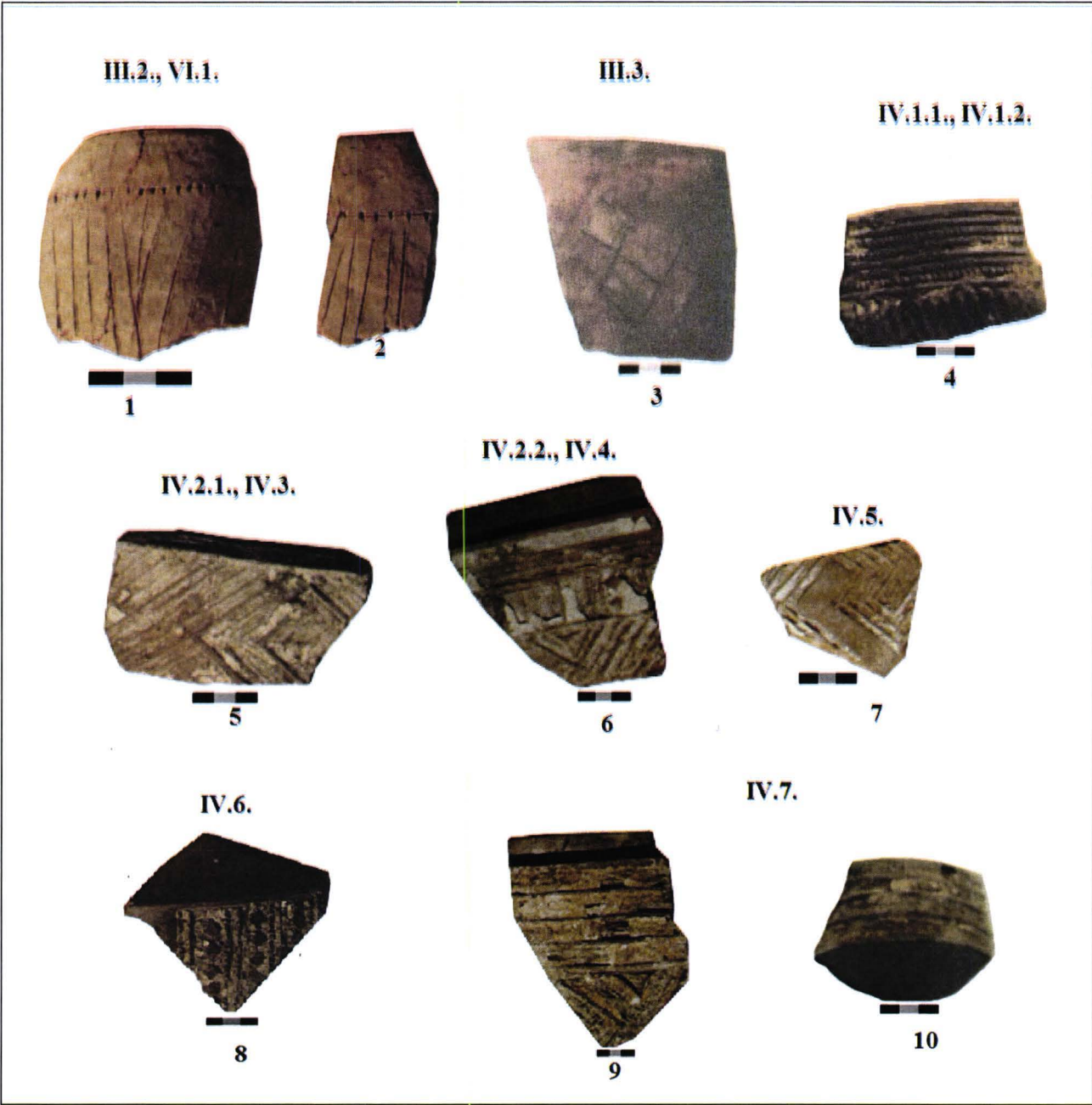


Fig. 5. Decorative motives of pottery found in Tell Radingrad, I horizon.

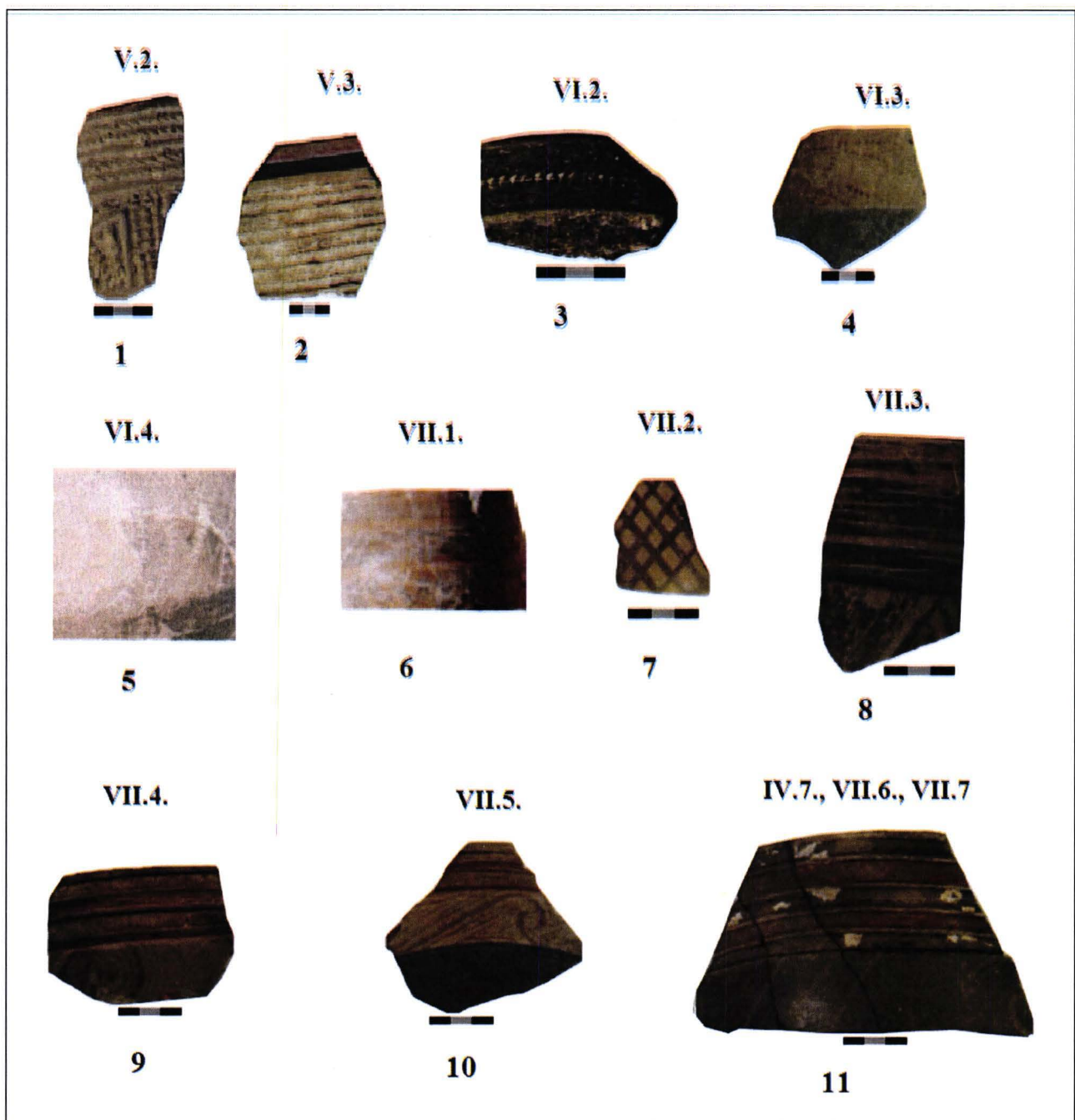
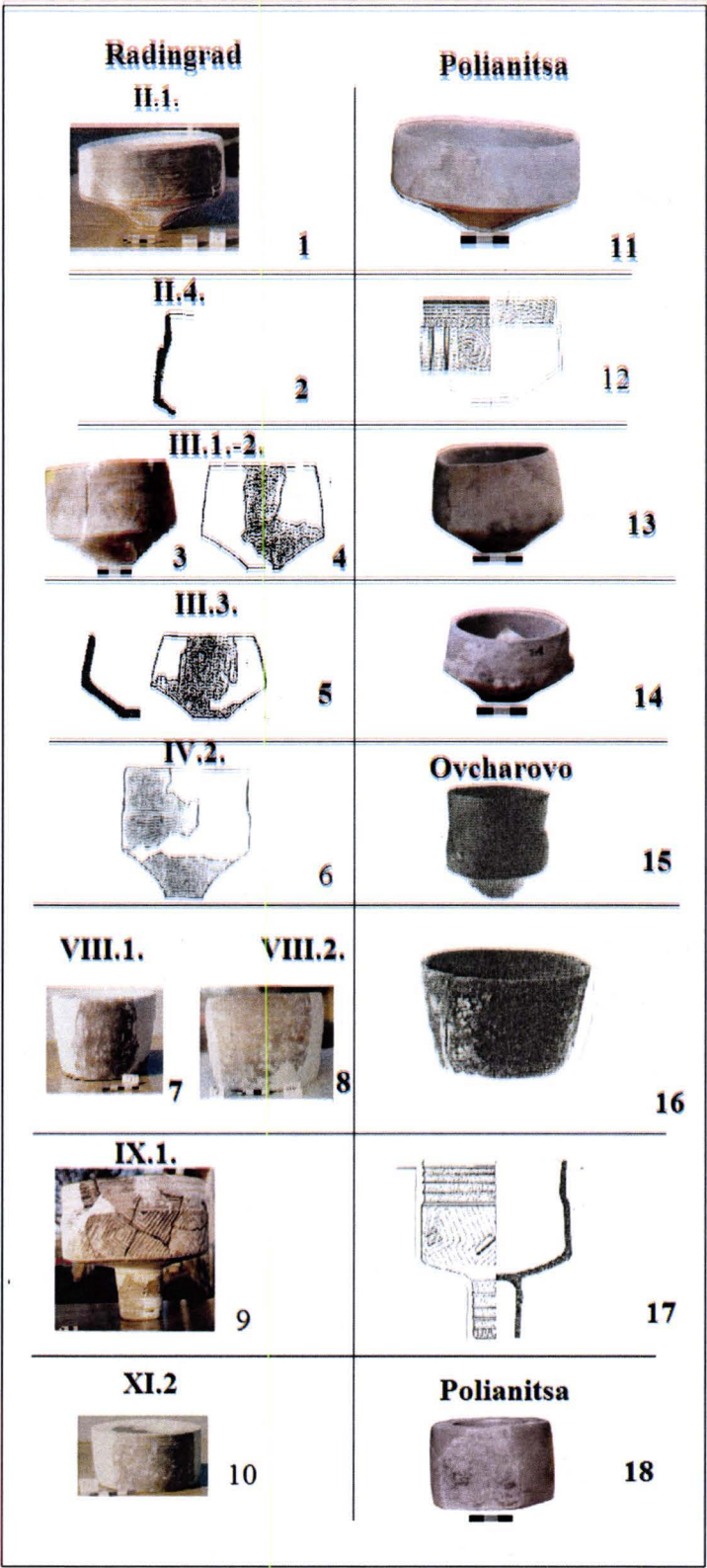


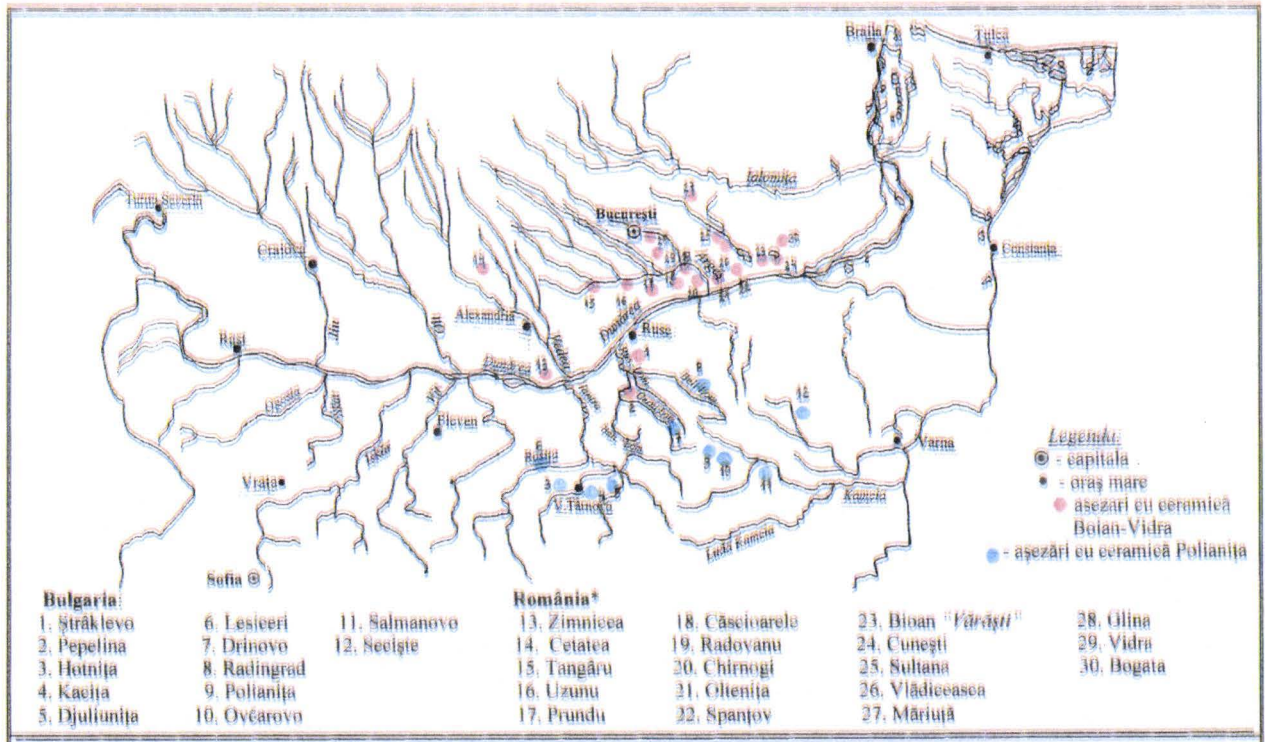
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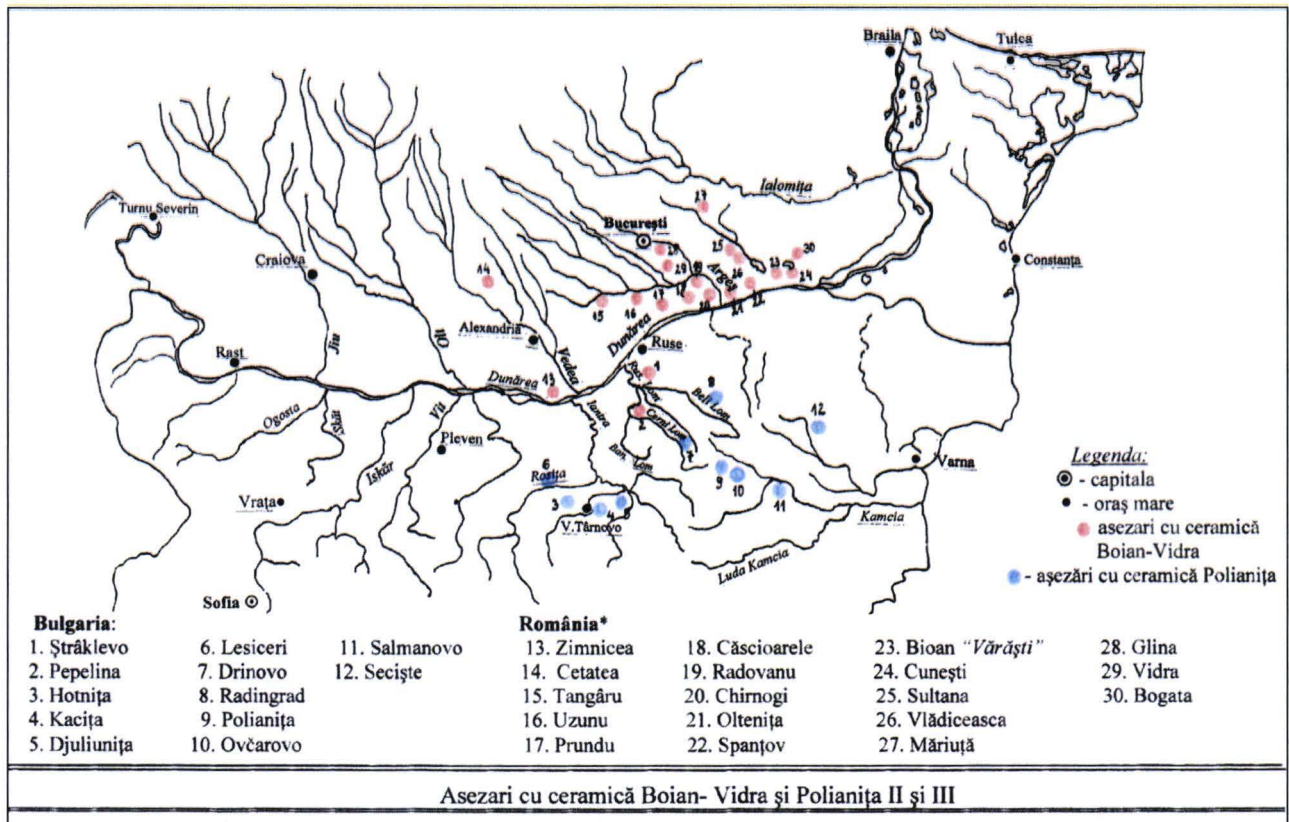


11, 13-14, 18 - unpublished; 12:H. Todorova, 1982, fig.100/17; 15-16: H.Todorova, V.Vasilev, Z. Ianushevici, M. KovachevaP. Valev , 1983, fig.36/8-9; 17: ibid, fig.35/12

Fig.7. The comparative table with pottery from Radingrad, Polyanitsa and Ovcharovo.



Map 1. Settlements with pottery Polyanitsa II-III and Boyan-Vidra.



Map 1. Settlements with pottery Polyanitsa II-III and Boyan-Vidra.