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SWORDS AND DAGGERS IN THE HUN EPOCH

The Hun epoch began in the Ural-Kazakhstan steppes in the second century AD with the appearance of Hun-Sarmatian culture monuments in the region of the Ural Mountains [1], after the northern Huns had left the territory of East Turkestan in 91 AD. In the same period, an active infiltration of the early Hun population is observed in the beginning in the Tzansvolga, and then the Volga-Don region. The mixture of Hun-Sarmatian and Alanians, a nomadic population, was a result of this process. There the late eastern Sarmatian culture emerged, characterized by a northern orientation, a deformation of the skull, specific types of horse bridles, swords and daggers with stone and metal discs on the handles, mirror-medallions and other features showing Hun influence[2]. Among the great number of late Sarmatian burials there are rich military and female complexes of the Hun-Sarmatian type, so-called "horsemen"[3]. In fact, the time of the Huns is not well represented in the Ural-Kazakhstan and east-European steppes. Only a small number of various funeral complexes had been considered monuments of the Hun epoch in the scientific literature for a long time[4]. There is a number of burials exhibiting Avar and early Bulgarian features in respect of shape, dating from the new early Turkish epoch (a burial with a horse of eastern orientation with horse bridles and arms of Sayan-Ultay origin). However this group included a large group of burials of the northern type, characterized by a deformation of the skull and an accompanying set of earthenware of non-Hun-Sarmatian origin. These are such complexes as: Leninsk, Belyaus, Verchnepogromnoe, Shipovo etc.

In the present paper, we have discussed a sample of arms dating from the second-fourth centuries and coming from the large area of the east-European and West-Asian steppes. Although it should be kept in mind that many of the complexes included in the present research cannot be of Hun origin, from our point of view, the Huns played a major role in the historical epoch in question and as a cultural component were the most significant group among the population of the Euro-Asian steppes. Hence, any changes and developments in the basic forms of arms were a direct consequence of the Huns' military activity and other peoples' voluntary or involuntary participation in the violent events of this period. The main stages of the Huns' history are as follows:

1. Early Huns stage (Hun-Sarmatian culture), the second-fourth century AD.

2. Hun stage, the end of the fourth and the fifth centuries AD.

3. Abterhyn (early Turkish) stage, the sixth-eighth centuries

Swords and daggers with disc-heads and with or without guards, wedges and edges are particularly typical of Hun burials. A collection of early Hun edge weapons of this kind is represented by the following categories and types:

Swords (28 finds) – long, straight, duble edged blade, wedge type with a chalcedonic disc or star on the head without a guard or with a small bar-guard (Kobyakovo burial. 5; Sladkovski, burial. 20, tomb 1; burial. 19, tomb 1; Komsomol IV, burials 2, 5, 8, tomb 2; Krasnogor; Pokrowski, burial 2; Tseleennei I, burials 3, 6, 47, 57, 64; Atpa I, burial 9; Atpa II, burial 3; Lebediovka V, burial 23, tomb 1; Lebediovka VI, burials 1, 37, 24, 3; Lebediovka, burial 1; Kara Tube, burial 4; Sladkovski, burial 2, tomb 1; Tsentralni VI, burial

[1] S. G. Botalov, S. Yu. Gutsalov, *Gunno-sarmaty uralo-kazakhstanskikh stepeiy*, Chelyabinsk 2000.

[2] T. Sulimirski, *The Sarmatians*, New York-Washington 1970, pp. 142-144.

[3] S. G. Botalov, *Hunns i guns*, "Arkheologiya, etnografiya i antropologiya Evraziy" 2003, No. 1, pp. 120-121, Fig. 8, 9.

[4] I. P. Zasetskaya, *Kultura kochevnikov yuzhnoruskykh stepey v gunnskuyu epokhu IV-V vv*, Sankt-Petersburg 1994.

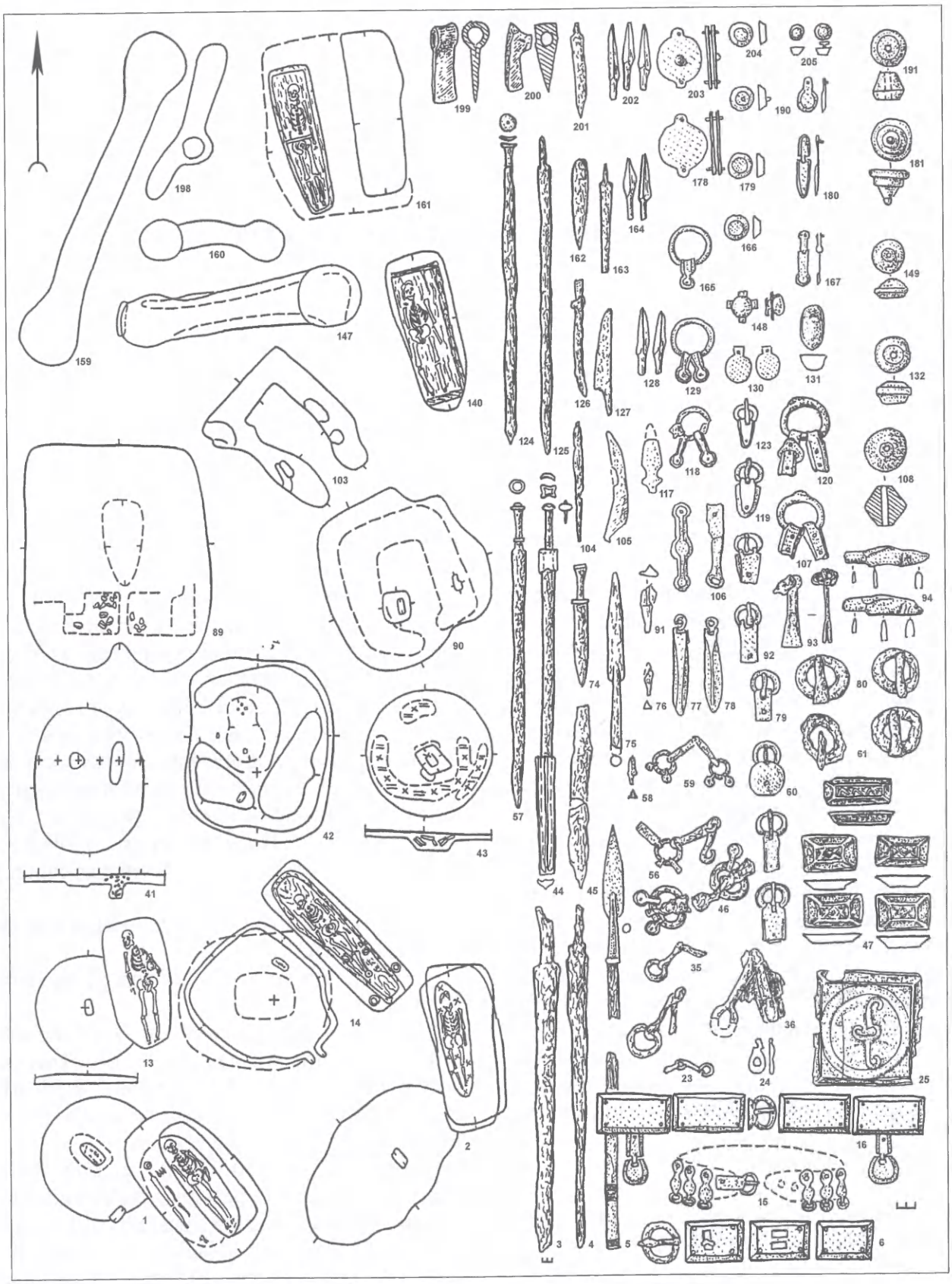
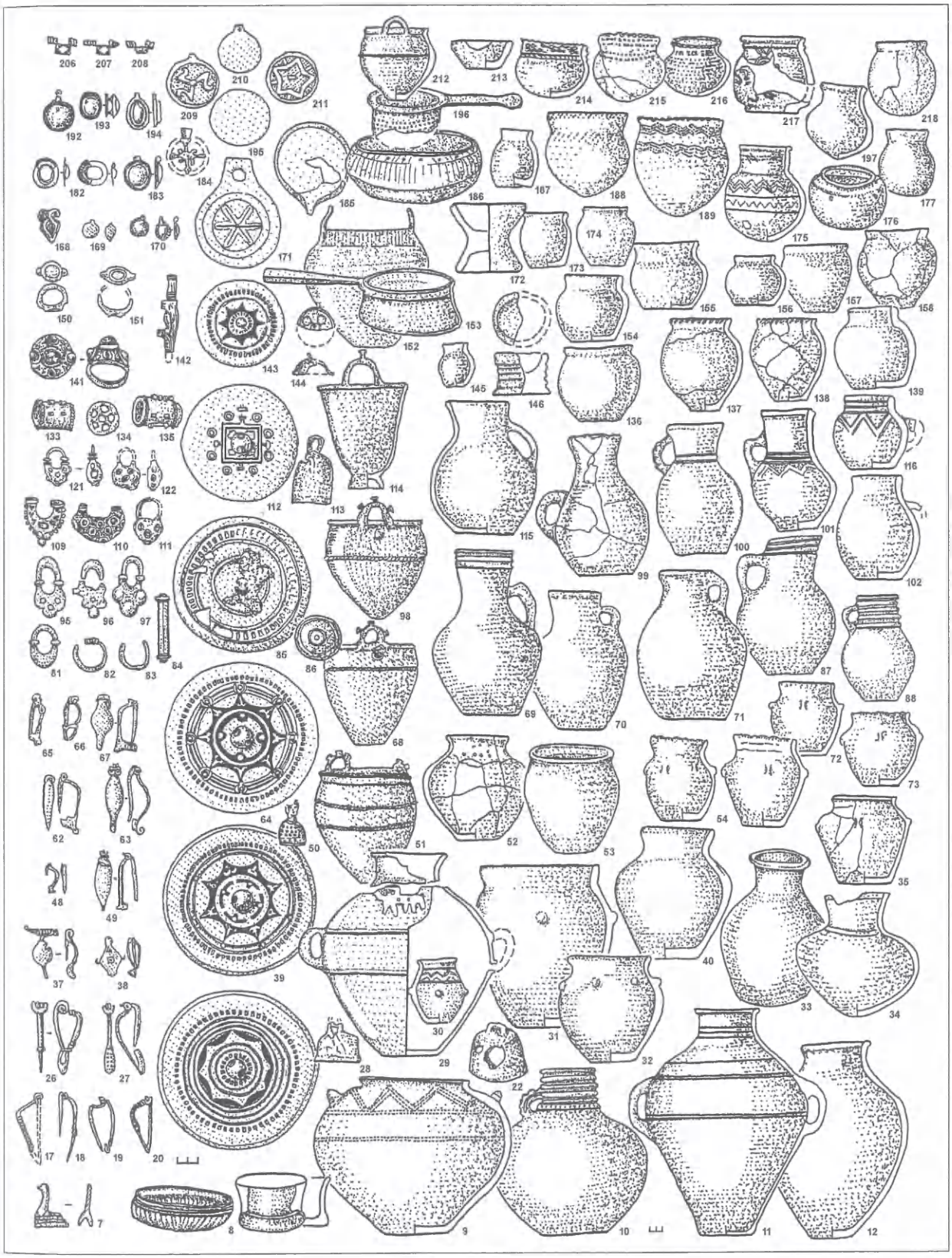


Fig. 1. Hun-Sarmatian (the Ural-Kazakhstan steppes) in the 2nd-4th centuries AD. *Pokrovka*: 1, 4, 28, 181, 128, 164, 202 (barrow 2); *Bolshe-Karagan*: 2 (barrow 7); 13, 88, 184 (barrow 19); 14, 17, 99, 151, 156, 169, 209, 212 (barrow 8); 20, 40. 69. 101, 116, 132, 149, 162, 191, 211 (barrow 18); 100 (barrow 20); *Komsomolsk IV*: 3, 19 (barrow 5); 70, 71, 143 (barrow 3); 79 (barrow 4); *Lebedevo*: 5, 8, 51, 75, 105, 110, 127, 163, 199, 200 (barrow 1); 110, 132, 135, 141, 168, 186, 192, 196, (barrow 2); *Tselinnyu*: 6, 35, 44, 46, 157, 167, 180, 205 (barrow 6); 31 (barrow 32); 32 (barrow 20); 58, 76, 103 (construction 13); *Eastern Karelia*: 7, 12, 30, 70, 108, 115 (barrow 3); *Pokrovka-2*: 9, 11, 25, 29, 47, 61, 80, 93, 94, 131. 213 ((barrow 9, grave 1); *Malkovo*: 10, 59 (barrow 3); 36, 39, 77, 78, 81, 86, 107, 120, 123, 142, 216 (barrow 1);



Bayramgolovo: 15, 16, 106, 109, 118, 166, 172, 179, 182, 188-190, 204, 215 (barrow 2, grave 2); *Derbenevo*: 18 (barrow 17); 26 (barrow 20); 95, 96; *Temyasovo*: 21, 22, 27, 33, 38, 50, 67, 111, 176 (barrow 3); 157, 158 (barrow 7); *Zhaman-Karagala I*: 24 (barrow 8); *Sarytau*: 28, 89, 113 (construction 12); *Eatern Karelia I*: 34, 87 (barrow 33); Tselinniy I: 37, 62 (barrow 87); 63, 82-84, 150, 171, 197 (barrow 57); 85, 172, 187 (barrow 81); *Druzheno*: 41, 134 (barrow 7) (barrow 5); 42, 102, 112, 130, 148, 156, 173, 178, 203 (construction ?) 97, 155, 194, 207, 208 (barrow 3); *Novonikolsk*: 43, 60, 206 (barrow 4); Atpa II: 54, 72, 73, 104 (barrow 3); 55, 91 (barrow 4); *Lebedevo VI*: 57, 114 (barrow 37); 98, 112 (barrow 39); 147 (barrow 1); *Lebedevka V*: 64 (barrow 23); 152 (barrow 49); *Shatrovo*: 65 (barrow 2); *Kara-Tal I*: 66 (barrow 6); *Magnitniy*: 68, 90, 122, 146 (barrow 3); *II Sibaysk*: 92, 129, 165 (barrow 2).

16, tomb 8; Shevchenko, burial 4; Sladkovski, burial 19, tomb 1; Novoaleksandrovka I, burial 20, tomb 1; Vesochino VII, burial 17, tomb 1; Novoaleksandrovka, burial 20, tomb 2; Novoaleksandrovka, burial 25; Shevchenko, burial 7 (Figs. 1, 3, 4, 44, 57, 104, 124, 125; 2, 1-7, 13-16, 24-27, 31, 35, 36).

Daggers (15 finds) with a straight guard and round head (Tseleennei I, burial 57), without a head and with handles (Lebediovka VI, burial 5, tombs 2; 8; 13; 23; 24; 49; Vostochno-Kuraileenski, burial 3; Tseleennei I, burial 6; Lebediovka, burial 1; Tsentralni VI, burial 16, tomb 8; Shevchenko, burial 4; Kobiakovo, burial 5, Sladkovski, burial 19, tomb 1).

In the collection there are also *two stone clamps* for the sheath (Lebediovka VI, burial 37; Sladkovski, burial 19, tomb 1) (Figs. 2, 36, 37).

The collection of swords and daggers of the Hun stage is represented by finds from excavations and casual finds coming mostly from the territory of the steppes of Eastern and Central Europe.

Swords (20 finds) with a broad edge, a bar-guard, a riveted board made of bronze or gold, often decorated with plait-like inserts of glass or stones, without a head or with a disc head, partly decorated with metal sockets and glass or stone inserts. In one case the edge has a well visible wedge, while in the other finds, the edges are right-angled forms with a vaulted edge (Novogrigorievka, burial IX; Dmitrievka, Pokrovsk, Bruhanvski Veselok, Mokraya Balka, tomb 193, Durso, tomb 479, Lermontovskaya Scala 2, tomb 10, Durso crypt B, Durso, tomb 291, Kugul, tomb 4, Zaragisk 118; Durso, tomb 500; Sopino, tomb 11; Yacusheveche, Kislovodsk, Abrau-Durso, Shapkino, Kamftesser, Batashec, Kocher (Figs. 32, 33, 35-39, 49-58).

Swords (17 finds) with broad and usually bent blade guards or without guards but with a wedge, right-angled edge or a vaulted edge (Novogrigorievka, burial VIII, Novaya Mayachka, Novo-Ivanovka, Kurnaevka, Fiodorovka, Kezel-Adir, Shepovo, burial 2, Muslumovo, Zevakino, Aktube, Kezel Kainartobe, Panonhalma, Durso tomb 479, Turaevo, burial VII, 1 a (Figs. 3, 21-27, 30, 31, 34). Four swords (Kerch Glinistoe; Tuzalok Razomnustarok, Staromushinski, burial 17) have disc-heads made of stone or metal (Figs. 3, 41, 42, 43, 60).

Five swords of a specific type which are presented in a summary monograph by Istvan Bona also date back to Hun times[5]. These are rather narrow, double-edged swords with a poorly visible guard, and a broad handle with a decorated metal reel at the end (Figs. 3, 40, 44, 45). One of the swords was found in barrow V at the Turaevo burial site[6]. Besides this find, other specific kinds of arms («Frantisisk» axes, plait-sickles) were found in Turaevo. Examining these weapons, I. B. Pastushenko[7] came to the conclusion that the complex had been created under strong cultural Gothic influence. Most likely, this type of sword also came from the circle of the Gothic population of Eastern Europe, which was visible in both its obvious originality and form, different from the basic edge forms typical of Hun weapons.

Daggers (4 finds): The Hun stage is characterized by a smaller variety of forms than the earlier prototypes: the double-edged guard is missing here (Novogriforievka Burial VIII, Equal burial 42; Dobrinka, Durso tomb 291). However, daggers with straight guards probably continued to exist at this stage. In a collection of Dgate Azar finds, four swords of this type were discovered[8]. One blade guard is missing and all the guards are small (Pokrovsk burial 17, Kubei, Turaevo tomb VII / 1a, burial VII tomb 1a, tomb 1; Aktube).

Sometimes the edges of duble edged blade daggers have original inserts in the form of crossers (Kichpek, Ksongrab, Durso tomb 291, 420, 500)[9].

Duble edged blade swords and daggers with disc or figure stone guards, without guards or with small bar-guards first appeared in the steppes of Central Eurasia in Hun-Sarmatian structures (Figs. 1, 3, 4, 44, 45, 57, 74, 124, 125). In A. S. Skripkina's opinion, long duble edged blade swords with a handle and a guard missing and a similar type of

[5] I. B o n a, *Das Hunen – Reich*, Budapest 1999, p. 39, Fig. 12.

[6] V. G e n i n g, *Völkerwanderungszeitliche Kriegergräber aus Tuzaeva im Uralvorland*, "Eurasia Antiqua. Zeitschrift für Archäologie Eurasiens", Bd. 1. 1995, Fig. 14, 1, 1a.

[7] I. Yu. P a s t u s h e n k o, *Ob etnokulturnoy prinadlejnosti "turaevtsev"*, [in:] *Ural v proshlom i nastoyashchem. Materialy nauchnoy konferentsiy*, Part 1, Ekaterinburg 1998, pp. 187-189.

[8] L. M. L e v i n a, *Etnokulturnaya istoriya Vostochnogo Priaralya*, Moscov 1996, p. 281, P. 861, 5, 9, 11.

[9] M. K a z a n s k i, A. M a s t y k o v a, *Le Caucase du nord et la région méditerranéenne aux 5e-6e siècle*, "Eurasia Antiqua. Zeitschrift für Archäologie Eurasiens", Bd. 5, 1999, Fig. 12, 31; 21,2.

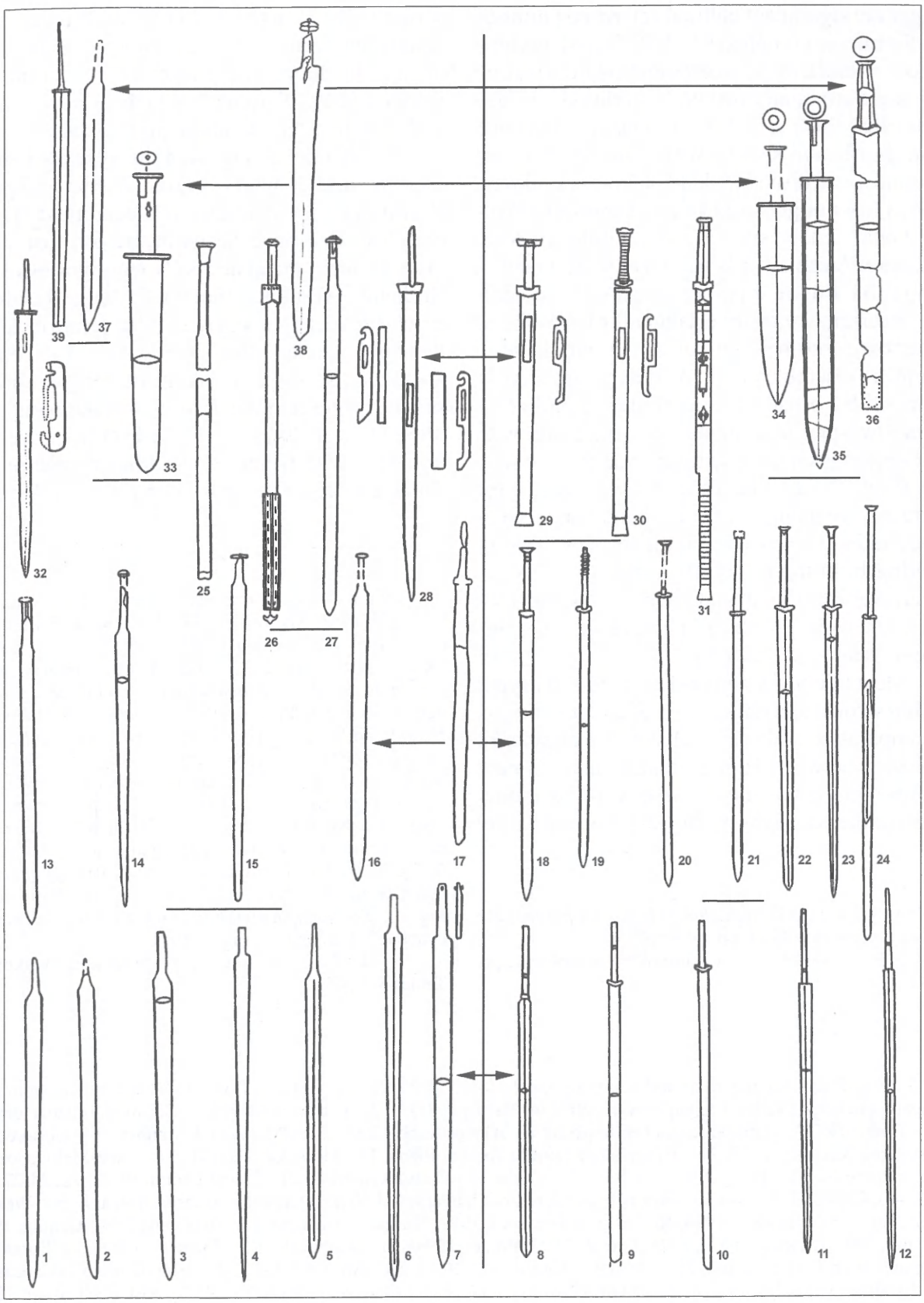


Fig. 2. The comparative plate of the hunn – sarmatians and chinese swords and daggers. 1 – Lebediovka VI br. 22; 2 – Lebediovka V br. 23; 3 – "Cheteere brata"; 4 – Tselennei I build.13; 5 – Lebediovka IV br. 1; 6 – Tselennei I br. 64; 7 – Kobiakovo br. 5; 8, 9 – Zesin; 10 – Intsu e shan; 11 – Syantzyaovai; 12 – Gaochquan; 13 – Lebediovka VIII, br. 24; 14 – Sladkovski br.20, tomb 1; 15 – Pokrovka br.2; 16 – Tselennei I br.3; 17 – Vesnyanoe tomb 1; 18 – Hamanimyo; 19 – Lyaohashan; 20 – Entsuashan; 21, 29, 30 – (bor Sun Tzin), 22, 36 – Younan; 23 – Yansyadu; 24 – Tsyanpin; 25 – Lebediovka VI br. 37; 26 – Tselennei I br.6; 27 – Lebediovka VI br. 37; 28 – Sladkovski br. 19, tomb 1; 31 – Syantzyaobay; 32 – Zamantogay; 33 – Tselennei br. 9; 34, 35 – Chgansin; 37 – Atpa II br. 3; 38 – Kara Tuba br. 4; 39 – The find near v. Malkovo.

dagger are significant cultural reference points of late Sarmatian complexes [10]. I. P. Zasetskaya also notices a similarity between some swords (type 3) and late Sarmatian objects. In addition, she assumes that there is a direct connection between Hun swords and swords with a broad edge and rhombic guard discovered in nomadic complexes, such as Novogrigorievka IX and Dmitrovka (Volnay Voda). These swords were similar in form to Central Asian swords and were widespread in Central Asia in the first centuries AD[11]. In addition, an original transitive dagger form was found in barrow 57 at the Hun-Sarmatian burial site in Virgin. It resembles a short, duble edged blade sword with a broad edge, a rhombic-guard and a bronze two-part head in the form of a castor with four openings covered with an oval overlay with pins (Figs. 2, 31). This type of sword is of great interest as the majority of Hun-Sarmatian samples have a rather narrow edge in the form of a dowel, tapering from top to bottom and a handle while the crosser is missing, and the head is sometimes round. However, with the passage of time, this type of weapon developed.

Most likely, the above-described early types of Hun swords and daggers are of Chinese origin. A comparative table (Fig. 2) shows a number of analogies between Hun-Sarmatian and Chinese swords coming not only from the Chinese monuments of the Xan dynasty, but also from an earlier period[12]. The hypothesis about the Chinese origin of the finds seems to be supported by the presence of specific loops (Lebediyovka VI, burial 37; Sladkovsk, br. 19, tomb 1) which are very similar to the ones of their Chinese prototypes.

Further development of this type of weapon used in close combat occurred in Hun and post-Hun times (in the fourth-fifth centuries). These samples often have heads in the form of stone discs or inlaid metal heads (Novogrigorievka IX, Bruhanov Veselok), though the edge becomes much broader (Novogrigorievka, Dmitrievka)[13]. It should be noted, that swords with broad edges are in use as early as the early Hun stage. Similar samples were found in barrow 4 at the burial site of Kara Tube (Western Kazakhstan), as well as in burials with typical Hun-Sarmatian equipment dating back to the second-fourth centuries. A sword

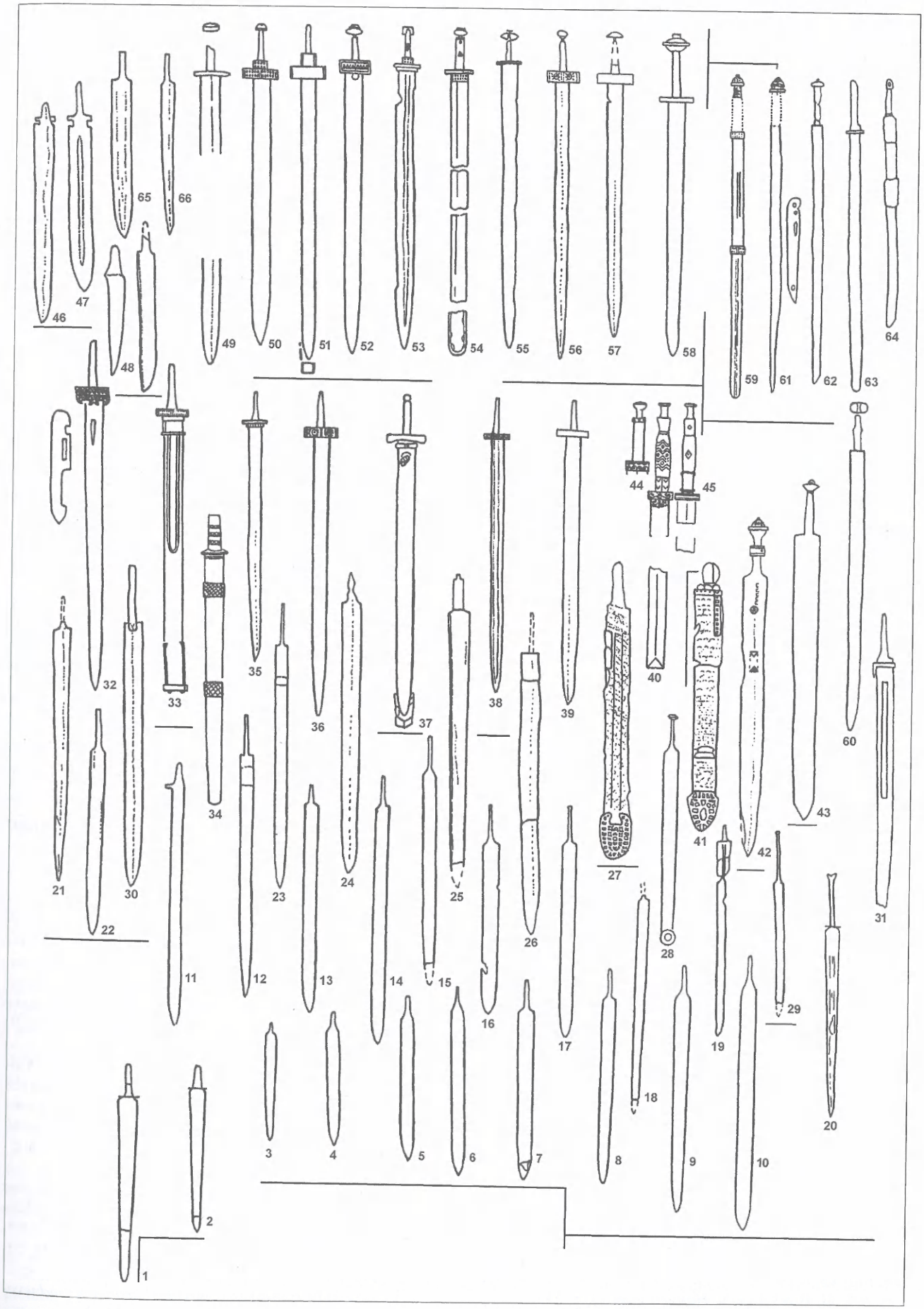
[10] A. S. Skripkin, *Nizhneye Povolye v pervye veka nashey ery*, Saratov 1984, pp. 84-85.

[11] I. P. Zasetskaya, *Kultura kochevnikov...*, pp. 28-31.

[12] Sun Tszi, *Yui tszyui yui chji ship ei tszyan fa*, "Koagu", 1985. No. 1, Fig. 8, 11-13/5; Sya Sinnan, *Chjetszyan Chansinsyan facyan UYU YUE, Chu tun tszyan*, "Kaogu", 1989. No. 1, Fig. 5, 3-5; *Lin Intsyueshan sytszo Si-Han mutszan. Shandunshen bouguan, Lini benu tszu*, "Kaogu" 1975, No. 6, Fig. 10, 10-11; *Hunan Tsysin Si-Han mu Hunan'nen bouguan, Hunanshen venu kaogu yantszyuso*, "Kaogu cyuebao", 1995, No. 4. pp. 452, 2, 3; *Ahun Tyanchan Santszyaovei Chjango – Si Huan mu chutu venu, An'huishen ven'u kaogu yan'tsyuso, Tyan'chansyan' ven'u guan'liso*, Venu 1993. No. 9. p. 13, Fig. 5, 14-15; *Choju Nantsyua'. Yui tszyui tszyan shiu kao shi*, " Kaogu yui benuyu", 1982, No. 6, Fig. 1; *Tszilin Yuishusyan Laoheshan Syanbei mu tsyun bufen mutszan fauzyus tszyan bao*, "Benu", 1985, No. 2, Fig. 10, 20; *Chjun Shaoi. Shilun byan tszin tszyan*, "Kaogu cyuebao", 1992, No. 2, Fig. 2/ 10, 1-3.

[13] I. P. Zasetskaya, *Kultura* kochevnikov..., Tables 3, 8; 45.5.

Fig. 3. Swords and daggers huns and afterhuns epoch. 1-11, 13-20, 28, 29 – swords from the latersarmatians tombs of Hungaria (author A. Vaday, L. Dombrovski, 2001, A. Vaday, 1985). 1, 2 – Kishmari-Feniks; 3 – Kishkindorozma tomb 1; 4, 5 – Pushpyok5; 7 – Endrod Kozopheti tomb 20; 8 – Alattan tomb 13; 9 – Tape-Maloyadok, tomb 5; 10 – Gestered; 11 – Ksongrad-Xatarut; 12, 23, 34 – Panonhalma (author Tomka, 1986); 13 – Grvenka, tomb 11, 14 – Tape-Maloyadok, 16 – Batin, tomb 10; 17 – Tisatyoldvar, tomb 77; 18 – Cada; 19 – Tisavalk, tomb 6; 20 – Fundort, tomb 59. 21, 22, 24-27, 31-33, 35-40, 42-46, 47-55, 56-66 – Swords from the tombs Hungarians, Poland, Dniester, Caucasus, Volga, Kama, Western Siberia (author Zasetskaya, 1994; Kasanski, Mastukowa, 1999; Sungatov, Gazustovich, Yousupov, 2004; Gening, 1995; Molodin, 1995; Umanski. 1977, 1978; Egorov, 1993; Bona I, 1999). 21 – Kurnaevka; 22 – Turaevo br. VII / 1a (Kama); 24 – Sopino, tomb 11 (Caucasus); 25 – Zevakino (Kazakstan); 26 – Kezek Ader (Ural); 27, 41 – Kugul, tomb 4 (Caucasus); 30 – Fyodorovka (Volga); 31 – Dorso, tomb 479 (Caucasus); 32 – Pokrovsk (Volga); 33 – Kislovodsk (Caucasus); 35, 66 – Kamfsheser (Hungaria); 36 – Abrau Durso (Caucasus); 37 – Durso, tomb 500 (Caucasus); 38 – Shapkino (Caucasus); 39 – Mokraya Balka (Caucasus); 40 – Turaevo br. 5 (Kama); 42 – Kerch Glinistoe (Crim); 43 – Tuzalok Razompustarol tomb 5 (Hungaria); 44, 45 – (author Bona I, 1999, abb. 12, 35); 46 – Keshpek (Caucasus); 47 – Ksongrab (Hungaria); 48 – Turaevo, br. VII, tomb 1a (Kama); 49 – Turaevo, br. 1/1 (Kama); 50 – Dmitrovka (Volga); 51 – Durso, tomb 13; 52 – Novogrigoryevka, tomb IX (Onieper); 53 – Batashek; 54 – Kocher; 55 – Yakushovichi (Poland); 56 – Lermontovaya Skala, tomb 10 (Caucasus); 57 – Kugul, tomb 4; 58 – Durso, tomb 291; 59 – Tugozvonovo (Altai); 60 – Stato-Mushtinski, br. 17 (Bashkortostan); 61 – Sopka 2, tomb 688 (Western Siberia); 62, 64 – Tatarskie Mogilki (Altai); 63 – Eraska (Altai); 65 – Aktobe (Kirgizstan).



with a straight guard and a relatively broad edge was also discovered near the Hun-Sarmatian burial site at Malkovo.

These observations seem significant, since in the Hun epoch in the steppes of Eastern Europe, there were swords with broad edges, with or without straight bar-guards, equipped with stone or metal disc-heads. In Hun and post-Hun times (fifth-sixth centuries), swords of this type were in use as far east as the Volga-Ural steppes (Fiodorovo, Aktube, Shipovo, burial 2, Kurnaevka, Kezel-Adir, Muslumovo, Bruchanov veseelok, Kizilkaina Tobe, and others)[14] (Fig. 3).

The interesting thing is that during the same period, swords with a narrow-blade of the early-Hun type and with a stone clamp for fastening the sheath (the burial site "Voshod" near Pokrovka)[15]continued to exist in this area. A greater collection of broad-edged swords with a straight bar-guard was discovered at Turbaslee (South Ural) and Djetiasar (the Syr-Darya River region)[16]. The origins of these finds are connected with Hun and post-Hun times (fifth-seventh centuries) and the population of the Ural-Kazakhstan steppes[17]. According to some experts, in the westernmost part of the European steppe, this kind of sword is strongly related to the finds coming from the Hun circle. However, it should be noted that the proportions of this kind of weapon essentially change here: the edge is more massive and the handle is longer. The form and ornamentation of the guard and the sheath change too. Most likely these innovations reflect obvious German, Thracian and Roman both technological and decorative influence[18]. The distribution area of broad-edged Hun swords with a straight guard and with or without a disc-head in the East bordered on the Ural and Central-Kazakhstan steppes. Moreover, in Hun and post-Hun times in the eastern part of the Euro-Asian steppe narrow-edged swords are still in use. During this period, their blades change and the weapons become one-edged broadswords. This is well visible in the case of fifth-sixth century finds from Altai (Tugozvonovo, Sopka, tomb 688, Eraska, the Tatar tomb)[19] and Tuva (the Kozel burial grounds)[20] as well as in contemporary images found in Eastern Turkestan[21]. Undoubtedly, the presence and further development of narrow-edged weapons in these regions were affected by the Chinese weapon tradition. From the Hun period to the end of the Tan dynasty (the tenth century), narrow double-edged Chinese swords were gradually transformed first into one-edged broadswords, and then into sabres.

As far as the subject of our research is concerned, we shall attempt to identify the reasons for the above-mentioned changes in the form of this type of Hun weapon. Undoubtedly, they cannot have been a result of a single factor, such as the appearance of new tactics of fighting, changes in the quality of protective armour, loss of access to some technologies or the appearance of new technological developments. Most likely, the form of the arms was simultaneously affected by all the above factors.

In the early Hun (or Hun-Sarmatian), second-fourth century burials of the Ural-Kazakhstan and Volga region steppes, there are relatively few tips of arrows in comparison with burials dating to the early Hiong period (the second-first centuries BC). Their typological structure is different too. While in the first case, we can observe a significant uniformity of the quiver, which, as a rule, has got three-wing iron tips, three hundred forms of the quiver were discovered in the Hiong-nus burials at Ilmova Pad, Derestuiski, Ivolginski, Cheriomuchovaya Pad, and others. There were rhombic

[14] I. P. Z a s e t s k a y a, *Kultura kochevnikov...*, Table 36, 1; 42, 9; 44, 7; 45, 1, 2.

[15] I. P. Z a s e t s k a y a, *Kultura kochevnikov...*, Table 32.

[16] L. M. L e v i n a, *Etnokulturnaya istoriya...*, Fig. 85; F. A. S u n g a t o v, *Turbaslinskaya kultura*, Ufa 1998, p. 74, Fig. 12, 9-10.

[17] S. G. B o t a l o v, *Hunns i guns...*, p. 113.

[18] I. B o n a, *Das Hunen...*

[19] A. P. U m a n s k i y, *Mogilniki Verkhneobskoy kultury na Verkhnem Chumyshe*, [in:] *Drevnyaya Sibir. Materialy po istoriy Sibiri*, t. 4., Novosibirsk 1974, p. 144, Figs. 5, 1-2; A. P. U m a n s k i y, *Pogrebeniya epokhi "velikogo pereseleniya narodov" na Charyshe*, [in:] *Drevnye kultury Altaya i Zapadnoy Sibiri*, Novosibirsk 1978, p. 138, Fig. 9; Ya. V. E g o r o v, *Novoe issledovanye pogrebeniya voyna epokhi Velikogo pereseleniya narodov na Altaye*, [in:] *Kultura drevnikh narodov Yuzhnoy Sibiri. Sbornik nauchnykh statey*, Barnaul 1993, Figs. 2,1; V. I. M o l o d i n, *Sopka 2, Grab 688 – ein reiches hunno-sarmatisches Männergrab in der westsibirischen Waldsteppe [Sonderdruck]*, "Antiquitas", Reihe 3, Bd. 34, 1995, Fig. 4,2.

[20] R. K e n k, *Das Gräberfeld der hunnosarmatishen Zeit von Kokel Tuva, Südsibirien*, "Materialien zur Allgemeinen und Vergleichenden Archäologie", Bd. 25, 1984, Fig. 24, A1; B 1, 2; 25, A 7,8; 37, A 1; 44.91; 46, D2, 53, A1; 53, A1-3.

[21] *Vostochniy Turkestan v drevnosti i rannem srednevekovie*, Moscov 1995, p. 391, Tables 49, 1-20.

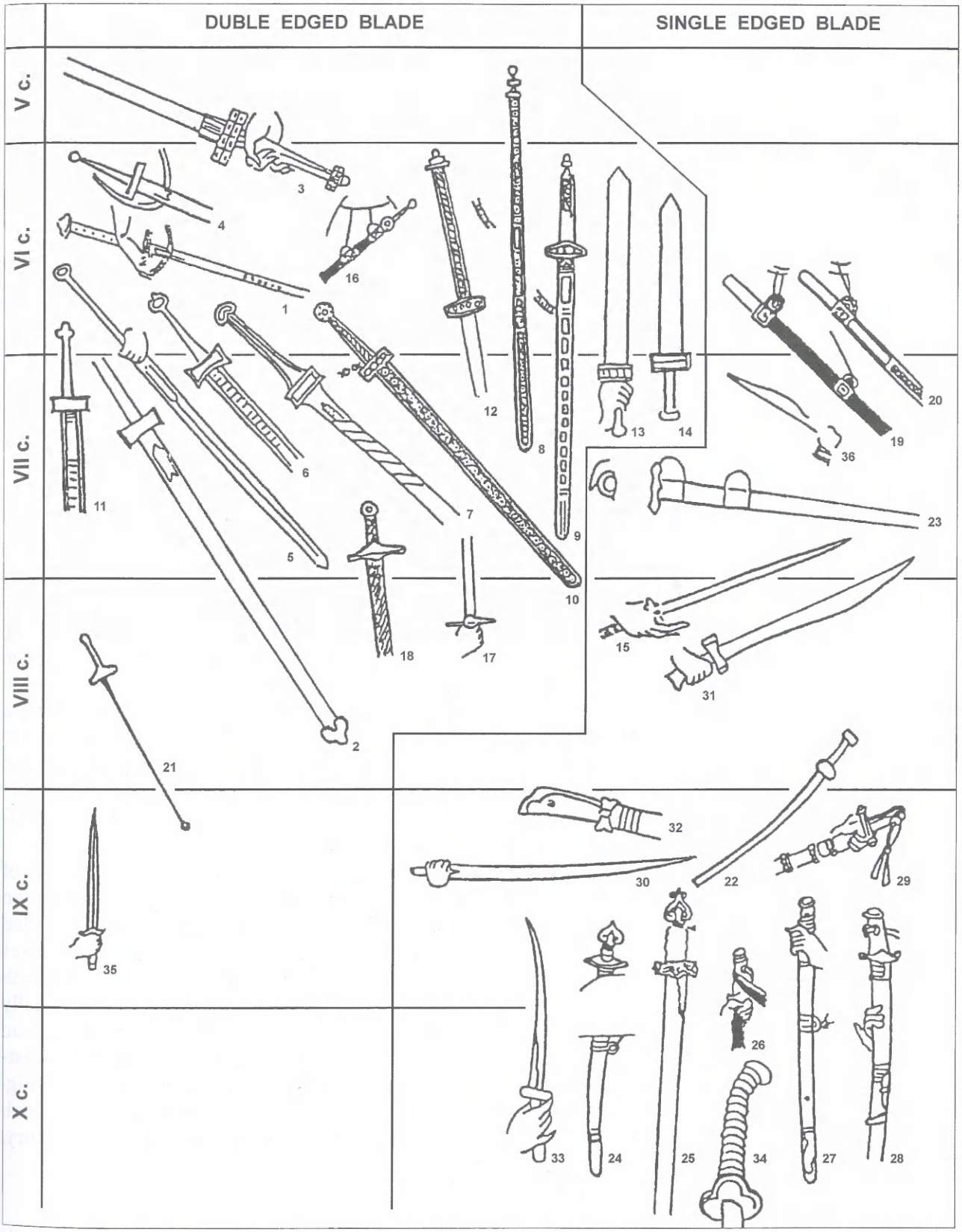


Fig. 4. Swords, archrabres and sabers of East Turkestan (author M. V. Gorelik, 1995). 1, 19, 20 – Kezel Ming-ui "Cave of artists"); 2 – Kezel "Cave Main"; 3 – Kezel "Cave of the treasures"; 4 – Kezel "The Cave Highing off the ground"; 5, 6 – Kezel "Cave with the fare-pale"; 7 – Kezel, cave No. 19; 8, 9 – Kurum-Tura, Ming-ui, cave No. 15; 10 – Kumtura, cave No 19; 11 – Kezel, complex No. 2; 12 – Kezel "Cave of sword-bearers"; 13 – Kezel "Peacocks cave"; 14 – Kezel; 15, 35 – Bezeklek, sanctuary No. 5; 16 – Kezel, cave No. 22; 17 – Shorchuk, cave No. 5; 18 – Kereesh, cave No. 12; 21 – Shorchuk, "Cave of the siege sity"; 22 – Iotkan, the stamps figure; 23 – Areeksai, stone sculpture; 24 – Yarhoto, the silks picture; 25-28, 32 – Bezeklek, temple No. 9; 29 – Bezeklek, sanctuary No. 140; 30 – Kocho, ruins A; 31 – Kocho, the silks picture; 33 – Bezeklek (Murtuk), the silks picture; 34 – Turpfan: the picture on the paper; 36 – Kumtura, cave No. 33.

forms, forms with wings, leaf-shaped forms and asymmetrical rhombic forms with double-wings, as well as three-wing tips with ledges[22]. The above tendency to uniformity may be observed in frequent combination of iron and bone in tips of arrows. The early Hun bone quivers were also quite uniform. The arrowheads were identical in shape: asymmetrically rhombic with a tetrahedral section. They differed from early Hiong-nus ones, where a great variety of types and forms could be observed. It might be assumed that Hun-Sarmatian quivers were functionally connected with hunting and not with military activity while in early Hun burials a prevalence of arms used in close combat, such as swords, daggers as well as spears and battle-axes called "Franzisks" (Fig. 1, 5, 199, 200), may be noticed. The above facts seem to suggest a change in fighting tactics, which occurred at the early Hun stage and was connected with the widespread introduction of protective laminar armour in both the armies and settler civilizations of the Euro-Asian steppes in the first half of the first century AD. Armed conflicts between the Huns and the latezom army at the turn of the fourth century resulted in further developments in the shape of Hun arms. The enemy warriors were protected only by laminar armour, cuirasses and helmets. As a consequence, the blades of Hun swords and daggers were adapted in order to increase the impact of the blow. However, there seems to exist another plausible explanation. In the East, despite the popularity of heavy protective armour among the nomadic population of late antiquity and the Middle Ages in Altai and Siberia[23] as well as in the armies of China, Korea and Japan, narrow-edged swords remained highly effective weapons for a very long time.

It could be assumed that the occurrence of massive, broad-edged swords in the environment of nomadic Hun hordes in the Euro-Asian border zone suggests that because of their remoteness from the basic industrial centers, the Huns, who could get narrow-edged swords and daggers only from the production centers within the borders of China or its provinces, were forced to trade with the Cuns' or the Tans' empires, situated on the Western edge of the country). In addition, in the nomadic environment, as well as in the lands of Eastern Europe which were controlled by them, imitations of swords with or without a disc-head and bar-guard were produced. This was also the case with mirrors, whose numerous imitations are found in the regions inhabited by the Alans and the Hun-Sarmatian population within the limits of the Volga River bottoms[24]. Here the ignorance of the «white bronze» secret resulted in the imitations being more massive and rougher. As far as the blades are concerned, the secret of smelting and forging multilayered batches seems to have been inaccessible to the nomads or East European masters, which inevitably led to an increase in weight and durability of the metal of which a weapon was made. However, the final answer to the question of imitations and their quality can only be provided by comparative metallographic analysis of Hun swords and daggers used at different stages of their history.

The assumption that the steppe areas of Central and Eastern Europe were the distribution areas of broad-edged weapons can be supported by the fact that in the case of nomadic complexes in the late Sarmatian period (the third-fourth centuries), massive, broad-edged swords usually without heads and guards were in widespread use in the Big Alfeld region situated in the westernmost part of the Euro-Asian steppes[25] (Fig. 3, 1-11, 13-20, 28, 29). At the final stage, which most likely falls on the end of the fourth century,

[22] P. B. Konovalov, *Hunnu v Zabaykale,* Ulan-Ude 1976, Tables I-II; G. P. Danchenko, S. V. Nesterov, *Dva pogrebeniya gunno-sarmatskoy epokhi iz Aymirlygskoy doliny*, [in:] *Metodicheskye problemy rekonstrukciy v arkheologiy i paleoekologiy*, Novosibirsk 1989, Figs. 2, 2-17, 12; A. V. Davydov, *Ivolginskiy arkheologicheskiy kompleks,* [in:] *Arkheologicheske pamyatniki syunnu. Ivolginskiy mogilnik,* t. 2, chast 2, Sankt-Petersburg 1996, Tables 11, 90; 17, 6; 22, 5, 6; 23, 33, 34; 26, 7; 46, 6, 7; 59, 35-38.

[23] A. P. Umanskiy, *Mogilniki verhneobskoy*, p. 143, Fig. 4; V. V. Gorbunov, *Ritualnye zakhoroneniya zhivotnykh kulayskoy kultury (gruntoviy mogilnik Obskie plesy II)*, [in:] *Pogrebalniy obryad drevnikh plemen Altaya*, Barnaul 1996, Fig. 4; A. I. Solovev, *Orujie i dospekhi*, Novosibirsk 2003, p. 123, Fig. 50; p. 135, Fig. 20.

[24] V. K. Guguev, M. Yu. Treister, *Khanskie zerkala i podrazhaniya im na teritoriy yuga Vostochnoy Evropy*, „Rosiyskaya Arkheologya", No. 3, 1995, p. 149, Fig. 4.

[25] A. H. Vaday, *Sarmatisches Ggräberfeld in Jörökszentmiklos*, "Acta Archaeologica Academiae Scientiarum Hungarica", No. 37, 1985, Fig. 5; E. Garam, A. H. Vaday, *Sarmatisches Siedlungung und Begräbnisstätte in Jiszavalk.* "Communicationes Archaeologicae Hungarian", No. 37, 1990, p. 183, Fig. 11; A. H. Vaday, L. Domboroczri, *Mezoszemere, Kismari – Fenek spätkaiser – frühvölkerwanderungszeitliches Gräberfeldsdetail*, "AGRIA", XXXVII, 2001, p. 19, Fig. 76.

there are funeral complexes having direct parallels among late Sarmatian finds discovered in the steppe near Budzhakskoy, northwest of the Black Sea coast[26]. The northern character of the finds and the accompanying set of artifacts distinguish them from the Sarmatian burials of Hungary. A narrow-bladed, double-handled sword with a disc-head was found in Tiozekcen Tmiklash (tomb 50). Narrow-bladed swords, dated at the fourth century, were also found at the burial grounds of Tisavalk (tomb 6) and Kishmazi-Feniks (tomb 38)[27]. However, as was stated above, narrow-edged swords were scarce in the western areas of the steppe. Undoubtedly, the technological tradition of producing broad-edged blades was predominant in this territory. Most probably, having arrived in the Danube region, the Hun horde adopted this particular feature of weapons used in close combat and betrayed their original form (disc-heads and bar-guards).

[26] A. V. G u d k o v a, M. M. F o k e e v, *Zemledeltsy i kochevniki v nizhovyakh Dunaya I-IV v.n.e*, Kiev 1984; M. M. F o k e e v, *Pamyatniki pervikh vekov n.e. v Budjakskoy stepi*, [in:] *Dnestro-Dunayskoe mezhdureche v I - nachale II tysyacheletiya n.e.*, Kiev 1987.

[27] A. H. V a d a y, *Sarmatisches Gräberfeld...*, p. 354, Fig. 7; E. G a r a m, A. H. V a d a y, *Sarmatisches Siedlungung...*, p. 183, Figs. 11-12; A. H. V a d a y, L. D o m b o r o c z r i, *Mezoszemere, Kismari – Fenek spätkaiser – frühvölkerwanderungszeitliches Gräberfeldsdetail*, "AGRIA", XXXVII, 2001, p. 55, Fig. 29, 1.