

TYPOLOGY AND EVOLUTION OF GATES AND ACCESS INTO EARLY HALLSTATTIAN FORTRESSES IN TISA-DNIESTER SPACE¹

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In the so called “early Hallstatt”² period the space comprised between the basins of the rivers Tisa and Dniester was inhabited mostly by sedentary communities identified by a series of archaeological cultures: *Gáva-Holíhrady* (Mozsolics 1957; Smirnova 1974; Крушельницкая, Малеев 1990; László 1994, 48-104; László 2010, 302-310; Bader 2012; Левицкий, Камуба 2014, 244-250), *Chişinău-Corlăteni* (László 1994, 105-141; Leviţki 1994a; László 2010, 316-318; Левицкий, Камуба 2014, 253-256), *Vârtop* (Lazăr 2011, 48-62), *Tămăoani-Holercani-Hansca* (Hänsel 1976, 122; László 1986; Leviţki 1994b), *Babadag* (Morintz 1964; Morintz 1987; Jugănar 2005; Ailincăi 2013), *Cozia-Saharna* (Hänsel 1976, 134; László 1989; Камуба 2000), *Insula Banului* (Morintz, Roman 1969) etc.

A characteristic feature of this period is the spread of fortified sites, whose number varies from one culture to another. It was discovered, from the repertory of fortifications from the Tisa-Dniester space, that most of them (about 121) were built in the area of the *Gáva-Holíhrady-Culture* (Horedt 1974; Demeterová 1983; Maleev 1988; Vasiliev 1995; Zanoci, Banaru 2010; Щербей 2010; Забітій 2011; Bălan 2013). In other cultural-chronological groups the number of fortresses is much smaller. Thus, at present for the cultures *Vârtop* (Lazăr 2011, 224, 225, 230, 250) and *Cozia-Saharna* (Zanoci 2013) are known six fortifications, for *Babadag* (Jugănar 2005, 20-24; Ailincăi 2013, 226-228) – five, for *Chişinău-Corlăteni* (Florescu, Florescu 1983, 74-75) and

Insula Banului (Nica 1990) – by one. In the area of *Tămăoani-Holercani-Hansca-Culture* no such sites are known to date.

Regardless of cultural belonging, early Hallstatt fortifications have a number of common features: the location in strategic places, the presence of artificial defensive elements (“wallum”, ditch, etc.), the adaptation to the specific land defense system on which they are located, etc.

Along with defensive constructions, the entrance method to the sites represent an important element of every fortification. The ways of access had to be easy for the residents and difficult for the enemy. Of all the defensive elements that were endowed, the gate remains the most vulnerable part. Hence the resulting increased attention paid to the access system in all times, including during the Hallstatt³.

The documentation level (table 1; fig. 1)⁴ on Hallstatt fortification gates in the area Tisa-Dniester is varying. In the area of the *Gáva-Holíhrady-Culture* entrance gates are attested at 36 fortresses from those 121 documented. For Hallstatt fortifications (6) in Oltenia we can inquire about gates for two of them. And in the cultures *Babadag* (5) and *Cozia-Saharna* (6) gates are identified in one fortress only. Of all these, four gates have been researched through archaeological excavations: those from Teleac (eastern gate) (Vasiliev, Al-

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²Term used especially in special literature in Romania (László 2010, 292-295) and Republic of Moldova (Kaşuba, Leviţki 2010, 321-324) to designate the period between the 12th and the 9th centuries BC (HaA-HaB, after P. Reinecke) part of the Iron Age. In Central-European historiography this time interval is related to the Bronze Age and is defined as Urnenfelderzeit (Müller-Karpe 1959).

³The subject related to the access gates into early Hallstatt fortification from Tisa-Dniester space is less addressed in special literature. Thus, some reference to them, also analogies in Central Europe, is done in the studies of V. Vasiliev (Vasiliev, Aldea, Ciugudean 1991, 28, note 61; Vasiliev 1995, 36, note 22). More recently, some generalizations regarding the entrance gates to the fortresses of Hallstatt in East-Carpathian space were made by the author (Zanoci, Banaru 2010, 417-418) and by G. Bălan with reference to *Gáva-Holíhrady* fortification from the territory of Romania (Bălan 2013, 291-293).

⁴Repertorying gates was made according to information published by researchers of these sites or was identified by us as a result of studying topographical plans and drawings of Hallstatt fortifications.

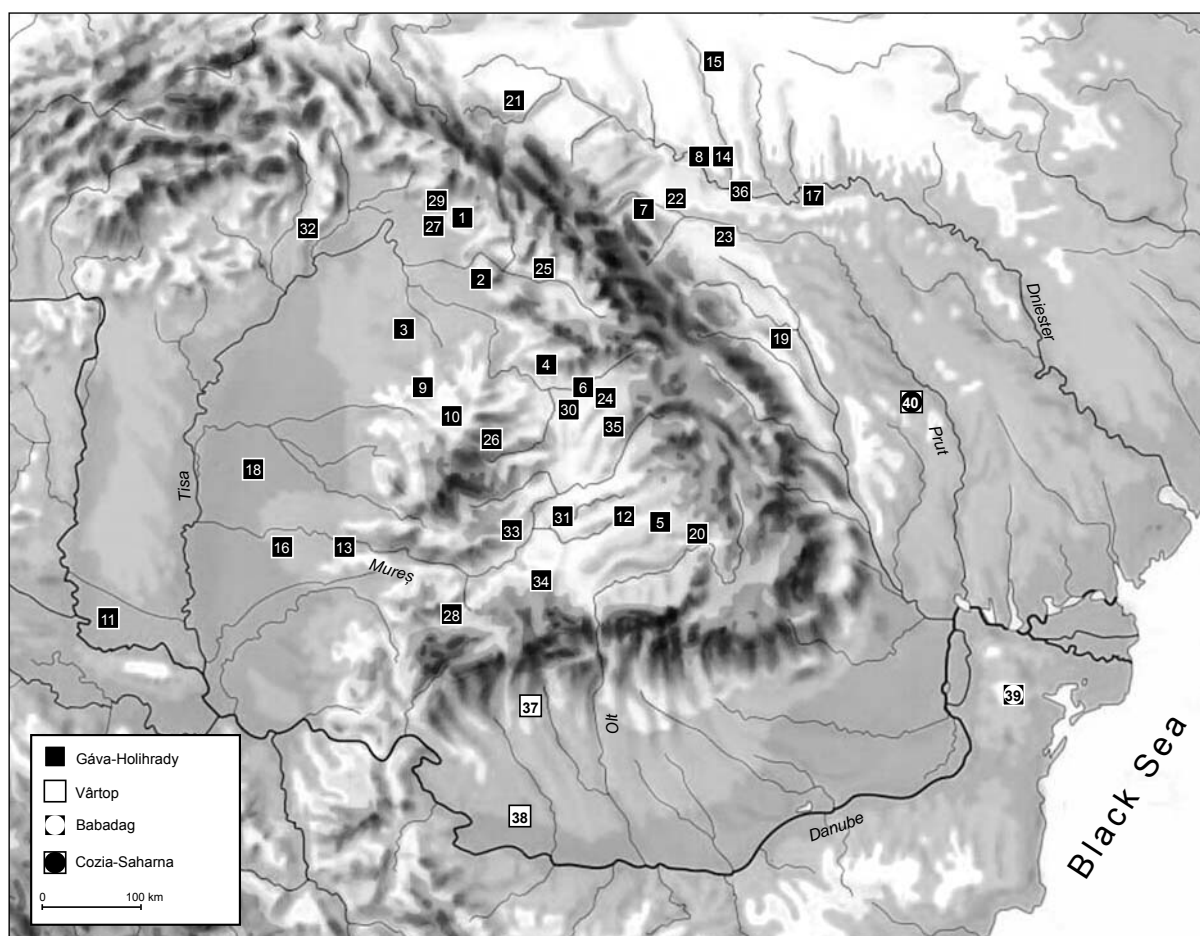


Fig. 1. Map of spreading of the fortifications, where the gates were discovered (numbers on the map correspond to Table 1).

dea, Ciugudean 1991, 28), Preutești (Ursulescu, Popovici 1984, 81-82; Ursulescu, Popovici 1997, 54-55), Voivodeni “Benk” (Horedt 1981, 227, Abb. 3) and Grădiștea “Cetatea Muierii” (Marinescu, Munteanu 1984-1985, 130-131).

The number of discovered gates within one site is different and varies from one to 10⁵. Most fortresses (26) of 40 subjected to analysis had only one access gate. In cases of sites with more than one known gate, they may differ in size and type.

Despite incomplete information, we are, however, able to affirm the use in this period of different types of gates. Depending on their location on the

site, they can be divided into (fig. 2): **(I)** – front gates and **(II)** – side gates.

I. *Front gates* are usually placed approximately at the middle of the defensive line that strengthens the site on its most accessible part. At present, their remains appear as a mere interruption into the defensive line (**I.a**) or accompanied by some additional defensive facilities (**I.b**).

Simple gates are attested more often (**I.a**) (fig. 3; 4). For example, in the area of *Gáva-Holihradly* culture they were found in 23 fortresses – Ciceu-Corabia “Măgura” (Vasiliev, Gaiu 1980, 33), Daia “Cetățuie” (Baltag 1979, 103-104), Gorodnicja (Малеєв 1987, 90, рис. 2/1), Lipova “Coasta Rea” (Pădureanu 1989, 268), Lošniv (Завітій 2009, 112, рис. 2), Preutești (Ursulescu, Popovici 1984, 81-82), Tállya “Óvar” (Matuz, Nováki 2002, 8, Abb. 5) etc. At the fortifications of *Vârtop* type they are known at Portărești “Cetățuie” (Tătulea 1982, 121) and Grădiștea “Cetatea Muierii” (Ma-

⁵ Most gates were identified at Šelestovo “Турча” fortification (Смирнова 1966, 398, рис. 3), followed by Ardanovo “Boguslav” – with nine (Мойжес 2011, 239, рис. 3) and Stremtura – with five (Пеняк, Попович, Потушняк 1981, 306). It is to note that they are located compact in Transcarpathian region (Ukraine) at a distance of 6-20 km from each other. This leads to the idea that the large number of gates could be a specific of the area.

Table 1.

Typology of gates

Nr.	Site	Typ			
		I.a	I.b	II.a	II.b
GÁVA-HOLIHRADY					
1	Ardanovo “Boguslav”, Zakarpattia Oblast, Ukraine	+	+		
2	Călinești Oaş “Dealul Hurca”, Satu Mare County, Romania		+		
3	Căuaș “Sighetiu”, Satu Mare County, Romania	+			
4	Ciceu-Corabia “Măgura”, Bistrița-Năsăud County, Romania	+			
5	Daia “Cetățuie”, Mureș County, Romania	+			
6	Feleac “Cetate”, Bistrița-Năsăud County, Romania	+			
7	Girs’ke, Ivano-Frankivsk Oblast, Ukraine			+	
8	Gorodnicja, Ivano-Frankivsk Oblast, Ukraine	+			
9	Halmășd “La Zamca”, Sălaj County, Romania	+			
10	Huedin “Bolie”, Cluj County, Romania		+		
11	Iđoš “Gradište”, North Banat District, Serbia	+			
12	Laslea “La Brazi”, Sibiu County, Romania	+			
13	Lipova “Coasta Rea”, Arad County, Romania	+			
14	Lisičniki, Ternopil Oblast, Ukraine	+			+
15	Lošniv, Ternopil Oblast, Ukraine	+			
16	Munar, Arad County, Romania	+			
17	Nagorjani, Chernivtsi Oblast, Ukraine			+	
18	Orosháza (Hódmezővásárhely) “Nagytatársánc”, Békés County, Hungary		+		
19	Preutești, Suceava County, Romania	+			
20	Racoș “Dealul Cornu” (Dealul Vărăriei), Brașov County, Romania		+		
21	Rozgirče, Lviv Oblast, Ukraine	+			
22	Rudniki, Ivano-Frankivsk Oblast, Ukraine	+			
23	Ržavinci, Chernivtsi Oblast, Ukraine	+			
24	Sărățel “Cetate”, Bistrița-Năsăud County, Romania				+
25	Sighetul Marmăției “Dealul Cetății”, Maramureș County, Romania			+	
26	Someșul Rece, Cluj County, Romania	+			
27	Stremtura, Zakarpattia Oblast, Ukraine	+			
28	Subcetate “Dealul Petriș”, Hunedoara County, România		+		
29	Șelestovo “Tupča”, Zakarpattia Oblast, Ukraine	+	+		
30	Șieu-Măgheruș “Hegheriș”, Bistrița-Năsăud County, Romania	+			
31	Șona, Alba County, Romania			+	
32	Tállya “Óvar”, Borsod-Abaúj-Zemplén County, Hungary	+			
33	Teleac, Alba County, Romania		+		+
34	Tilișca “Cățânaș”, Sibiu County, Romania				+
35	Voivodeni “Benk”, Mureș County, Romania		+		
36	Voloka, Chernivtsi Oblast, Ukraine			+	
VÂRTOP					
37	Grădiștea “Cetatea Muierii”, Vâlcea County, Romania	+			
38	Portărești “Cetățuie”, Dolj County, Romania	+			
BABADAG					
39	Beidaud, Tulcea County, Romania	+			
COZIA-SAHARNA					
40	Pocreaca “Cetățuia”, Iași County, Romania		+		

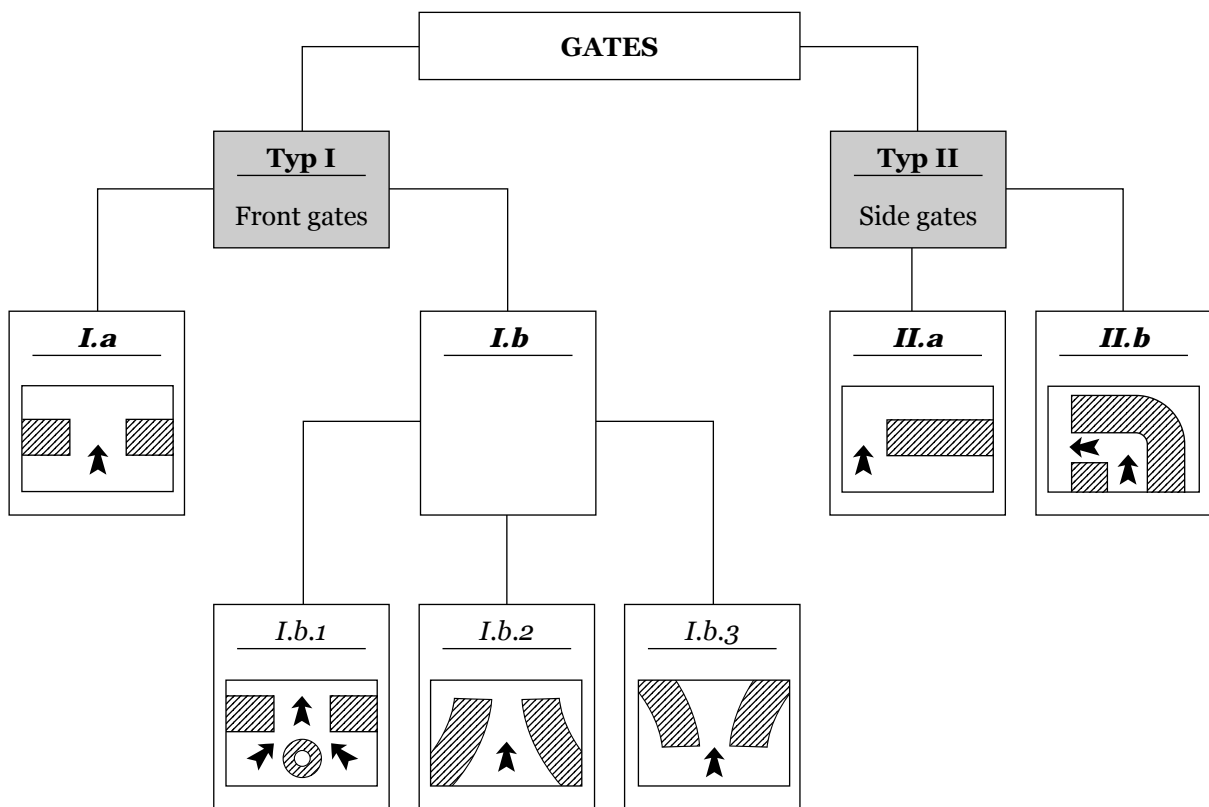


Fig. 2. The typology of the gates.

rinescu, Munteanu 1984-1985, 130-131), while in *Babadag* culture – at Beidaud (Simion 2003, 80).

The width of these interruptions is different and varies from 4 m – Lipova “Coasta Rea” (Pădureanu 1989, 268) to 25-30 m – Căuaș “Sighetiu” (Németi 1981-1982, 48), most having, however, a width of about 4-5 m.

Archaeological excavations conducted in the area of these gates show that, during their operation, they were not simple defensive system interruptions, but represented well appointed and highly strengthened access spaces.

For example, at Preutești the entrance was on the southern side, the only place of access to the fortress. Here, unlike other fortifications⁶, the ditches were discontinued opposite to the gate and were equipped with walkways. The traces of pillars supporting the bridge were found on the bottom of the inner ditch. Several phases of gate

construction were observed in the entrance area. In the first phase, the gate was flanked by two pillars placed at a distance of 1,30 m from each other, whose traces appearing in the lower level. After a violent destruction by fire, the entry was leveled and covered with a layer of trodden soil. From this level was built a new gate, with documented remains of a pillar pit with a diameter of about 0,6 m and a depth of 1,5 m. There was another pit towards the inside with a diameter of 0,5 m, in which was set probably a pillar that was intended to support the main structure of the gate. From the outside, in the entrance area was discovered a pavement made of broken river stones held together by a layer of clay. It was preserved on a width of about 1,75 m and a length of about 1 m. After a fire, the gate was destroyed and its remains covered the mentioned pavement. Then, a third phase followed when another gate was installed, from wood as well, from which were preserved pits from four pillars with a diameter of 0,2-0,3 m. Near the gate was attested another river stone paving with clay binder which preserved on a width of 0,2 m (Ursulescu, Popovici 1984, 81-82; Ursulescu, Popovici 1997, 54-55).

⁶ Usually, the fortifications endowed with ditches and with attested entry gates, were interrupted on the respective segment – Feleac “Cetate” (Dănilă 1972, 94-96), Bogii (Завітій 2011, 16), Portărești “Cetățuie” (Tătulea 1982, 121) etc.

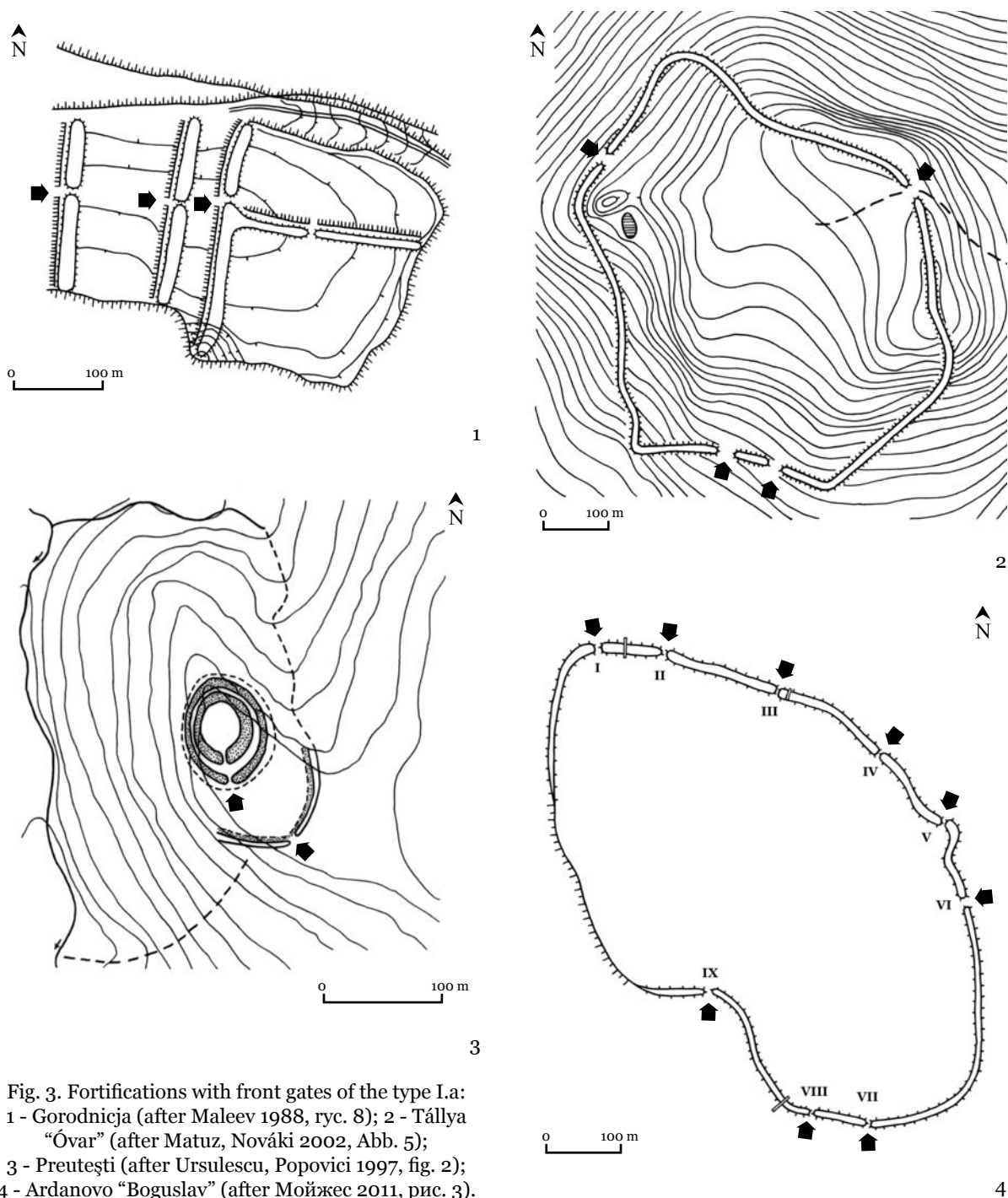


Fig. 3. Fortifications with front gates of the type I.a:
 1 - Gorodnicja (after Maleev 1988, рис. 8); 2 - Tállya
 “Óvar” (after Matuz, Nováki 2002, Abb. 5);
 3 - Preutești (after Ursulescu, Popovici 1997, fig. 2);
 4 - Ardanovo “Boguslav” (after Мойжес 2011, рис. 3).

At Grădiștea “Cetatea Muierii”, due to the cutting in the space opposite the gate were discovered a series of pits with beam traces. Two of them “had a distance of 2 m between each other, were large, the outer pit had the \varnothing of 50 cm, and the inner one had the \varnothing of 35-40 cm; no doubt they were the doorposts of two successive gates” (Marinescu, Munteanu 1984-1985, 130-131).

Perhaps for the rest of fortifications, whose gates remain yet unexplored, similar facilities were built and wood was used as main building material. Its burning or decay has left clear traces on ground surface and, therefore the place where these gates were located appear now as mere interruptions in the defensive construction.

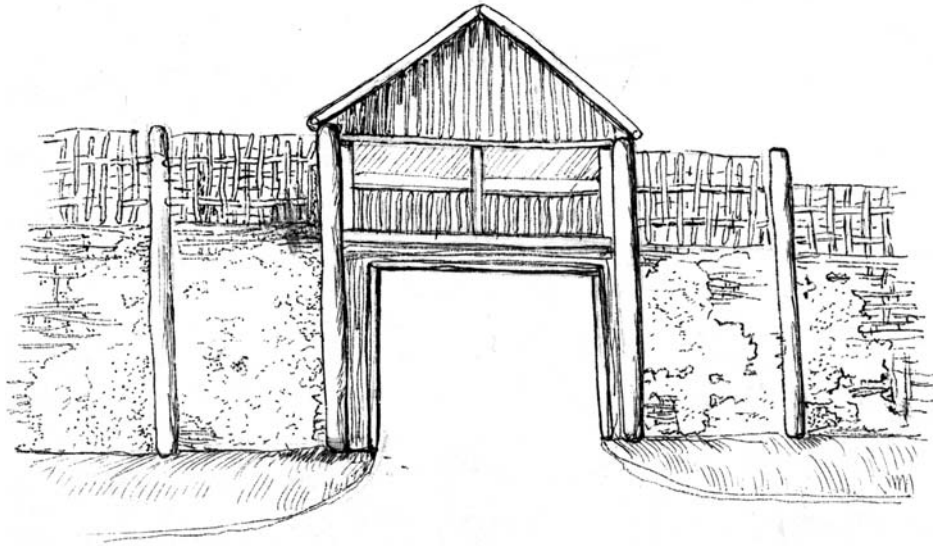


Fig. 4. Variant of reconstruction of a front gate of the type I.a.

A similar aspect was documented for the entrance gate remains found at fortifications from surrounding areas. For example, in Černyj Les culture “the interruptions” in the defensive system were found at the fortresses from Subbotov (Тереножкин 1961, 17, рис. 11), Grigorovka (Артамонов 1955, 100-101, рис. 39) etc.; in Kyjatice – at Točnica-Uderiná (Furmanek 1989, 83, Abb. 1), Miskolc-tapolca-Várhegy (Matuz, Nováki 2002, 9, Abb. 10), Szilvásvárád-Törösánc (Matuz, Nováki 2002, 10, Abb. 13) etc.; in Lusitian (Coblentz 1989, 46) – at Sacrow, Löbau (Herrmann 1969, 85, 88, Abb. 2/f, 3/f), Jankowo (Puziuk 2010, 19, rys. 6, 8) etc. These, and those from Tisa-Dniester area, were probably “fortified” with some wood constructions, as evidenced by archaeological research conducted on Jankowo route, which revealed remains of a wooden superstructure type tower that raised above the gate (Puziuk 2010, 19, rys. 8).

Front gates with additional facilities (**I.b**)⁷, whose remains are currently observed on the ground, are less numerous. In the space examined they are known in the area of *Gáva-Holíhrady* (11 gates) and *Cozia-Saharna* culture (1 gate) exclusively. Their construction and system configuration varies from one site to another. However, certain criteria for distinguishing three planning methods

⁷ British researcher A. Lawrence mentioned in referring to such gates: “Their design (gates - a.n.) had as basic principle the exposure to strikes of the enemy from most possible directions and especially from the unprotected right side ...” (Lawrence 1979, 304; Keeley, Fontana, Quiq 2007, 62-64).

are noted (fig. 2): **I.b.1** – gates protected by one defensive construction (tower/bastion) situated on a flank or in front; **I.b.2** – gates formed due to arching of defensive lines ends towards the inside; **I.b.3** – gates formed due to arching of defensive lines ends outwards.

I.b.1. Gates “strengthened” with bastions/towers were discovered at Orosháza “Nagytatársánc”, Ardanovo “Boguslav” (gate no. V), Huedin “Bolic” and Racoş “Dealul Cornu”.

The gate from Orosháza fortress (fig. 5) takes the form of a break in the “wallum”, while the ditch on this portion is shallower than the rest of its length. A mound has been discovered in front of the gate, which was interpreted as remains of a building meant to protect the access into the fortification (Banner 1939, 113, Taf. II, K-K).

At Ardanovo, near gate no. V, on the eastern side, the defensive wall forms a “loop” towards the outside⁸ similar to a semicircular „bastion” which suggests this change of direction in the defensive line was done intentionally for a better supervision of the access to the fortress from several directions (Мойжес 2011, рис. 3).

A similar change in “wallum” route, called “spur” by the fortress researches, was documented in the portion of the southern gate at Huedin (Alexa,

⁸ This change in direction of the “wallum” is not mentioned in the publications focused on this site (Смирнова 1966, 297; Мойжес 2011, 238-239, рис. 3), but it can be easily traced on the fortification plan-outline.

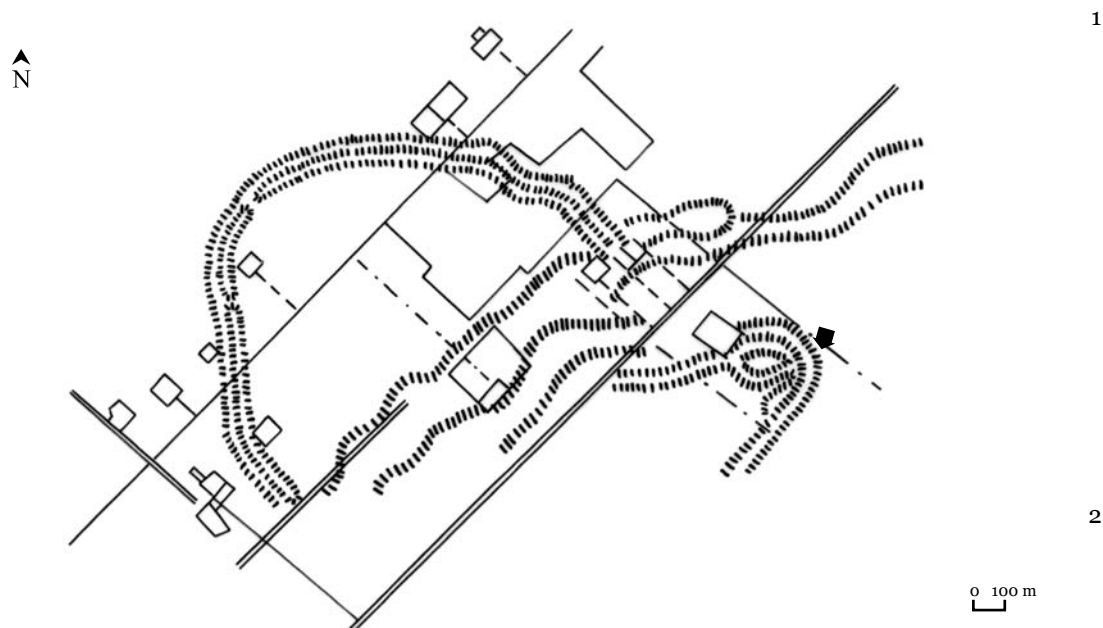


Fig. 5. Orosháza. 1 - Othophotomap (after Google Earth Pro); 2 - plan of the fortification (after Banner 1939, Taf. II, K-K).

Fernci, Șteiu 1965, 637). At Racoș “Dealul Cornu”⁹ site, near the two gates, the defensive line shows slightly arched segments (Costea 2000, 222-223).

This gate variation is less known in Central Europe in early Hallstatt (Urnfield culture). For example, in the Lusitian culture at Schlachach fortress (Herrmann 1969, 85, Abb. 4/b) there is a slightly arched short “wallum” situated in front

of the gate which is interpreted as a “bastion”. In Urnfield culture, at Neuhauser Forst “Grosse Knetzberg” the fortification in the part where the gate is located, the defensive line forms a “loop”, which unlike Ardanovo is directed inward (Abels 2002, 77, Abb. 35a)¹⁰.

⁹ Additional information Fl. Costea, with many thanks addressed to him again.

¹⁰ Gates with additional facilities found in the area of early Hallstatt cultures (Urnfelderzeit) from Central Europe are considered by some researchers to have occurred as a result of some Mediterranean influences. For example, B.-U. Abels finds an analogy for the gate from Grosse Knetzberg in the 4th century BC (!) at Mantinea (Greece) (Abels 2002, 79, Abb. 35b).

In the Bronze Age a gate with additional facilities was explored in the area of Otomani culture, at Spišský Štvrtok. It was strengthened with a stone wall, which was discontinued on the east side on a stretch of about 10 m where a gate was installed. It was flanked by two round towers with a diameter of about 6,5 m high, made of stone as well (Vladár 1975, 5-8; Furmánek, Veliačik, Vladár 1991, 184, obr. 27, 29).

Defending gates through bastions or towers in the area Tisa-Dniester will get a wider spread starting only with phase HaD. This method of protecting access gates was also used in Thraco-Getic fortresses from Saharna Mare, Saharna Mică (Niculiță, Zanoci, Arnăuț 2008, 25, 92-99, foto 20) and other sites from this period (Zanoci 1998, 62-63).

I.b.2 (fig. 8). The gates formed due to inward arching of the defensive lines ends¹¹ were investigated at Călinești Oaș (Marta 2010, 10), Subcetate and Teleac (eastern gate).

For example, at Teleac (fig. 6) the ditch is interrupted opposite the eastern gate and the wall ends turn inward leading the access towards to gate. The authors of excavations presume also the possibility of a double gate, one at the entrance into this corridor and another at its end (Vasiliev, Aldea, Ciugudean 1991, 28, pl. I, IX; Vasiliev 1995, and note 21 from s. 45).

At Subcetate (fig. 7) were identified two gates of this kind. One was located on the north side and was installed in the place where the eastern side wall met with the northern side wall. The wall ends make a turn towards the inside of the fortress to form a corridor flanked by them. As in the case of Teleac fortification it is presumed the existence of a double gate. The gate on the southern side has a similar configuration and construction (Vasiliev 1995, 36-38 and note 21, pl. I).

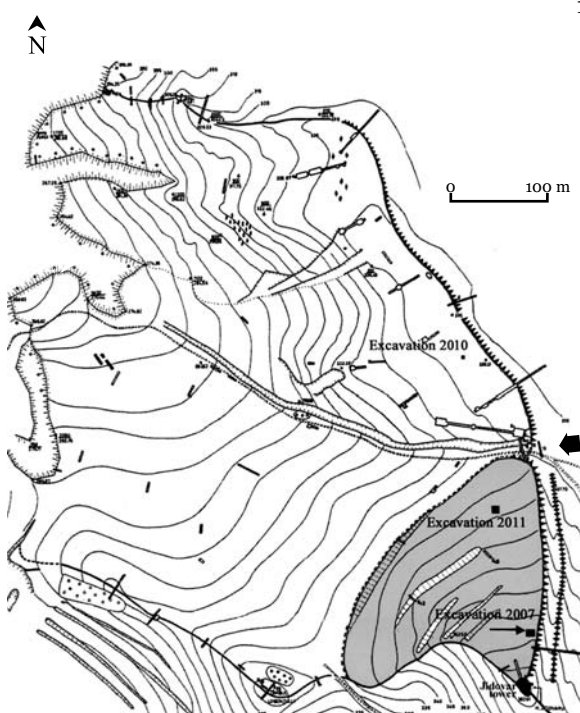
Gates with similar aspects¹² are documented in the area of contemporary cultures in Central and South-Eastern Europe. For example, a similar gates were attested in Kyjatice world at Kemence "Magosfa" (Matuz, Nováki 2002, Abb. 36); in Lusitia – at Klátová Nová Ves (Veliačik

¹¹ In Central and West-European special literature, the term "Zangentor" – in the form of "grapples" is used for such gates (Böhme, Friedrich, Schock-Werner 2004, 241-242).

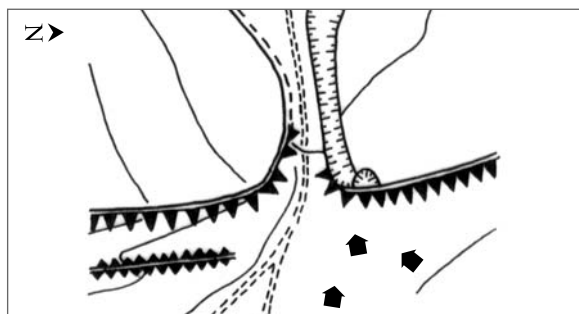
¹² For some fortifications (Kemence "Magosfa", Klátová Nová Ves, Turík, Bullenheimer Berg), one "wallum" end turns inward only, the other going straight.



1



2



3

Fig. 6. Teleac. 1 - Aerial photograph, projection from the northwest (after Panorame istorice 2012, 45); 2 - topographical plan (after Ciugudean 2012, fig. 2); 3 - detail of the gate (drawing after Ciugudean 2012, fig. 2).

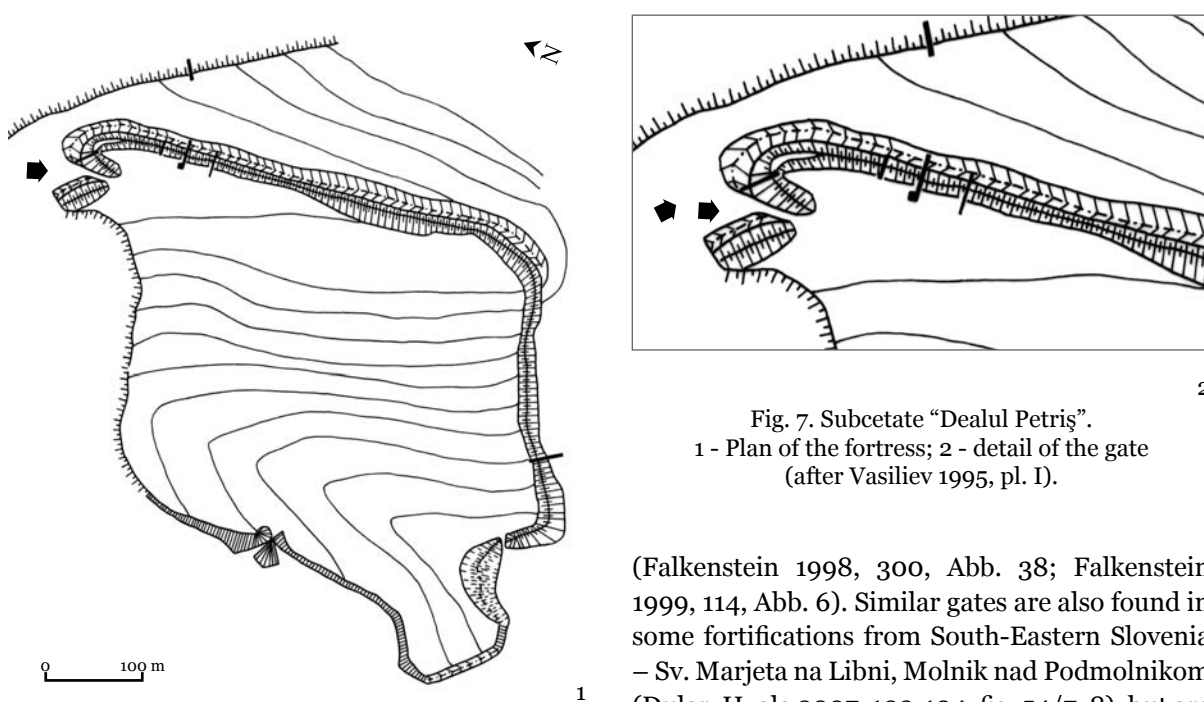


Fig. 7. Subcetate "Dealul Petriș".
1 - Plan of the fortress; 2 - detail of the gate
(after Vasiliev 1995, pl. I).

1983, 17, obr. 2/1), Turík (Veliačik 1983, 18, obr. 3/3; Veliačik 1983a, 105, obr. 1/3), Zemianske Podhradie (Veliačik, Romsauer 1998, obr. 1) etc.; in Urnfield culture – at Bullenheimer Berg (faza III) (Diemer 1995, 29-30, Abb. 2), Ehrenbürg (Abels 2008, Abb. 2), Plešivec (Křivánek, Kuna, Korený 2006, obr. 5), Wolfsberg bei Mühlbach (Ostermeier 2012, 378, Abb. 204) etc.; in Gornea-Kalakača (Bosut IIIa) – at Mošorin 8 (Feudvar

(Falkenstein 1998, 300, Abb. 38; Falkenstein 1999, 114, Abb. 6). Similar gates are also found in some fortifications from South-Eastern Slovenia – Sv. Marjeta na Libni, Molnik nad Podmolnikom (Dular, Hvala 2007, 103-104, fig. 54/7, 8), but are dated later with HaC.

Among the first gates of this kind ("Zangentore") in Central Europe are highlighted those from Nitriansky Hrádok in the area of Maďarovce culture (Western Slovakia) dated with the period BrA₂-BrB₁ (Točík 1978, plan 76; Točík 1981, 64-66) and from Bad Buchau "Siedlung Forscher" (South-Western Germany) dated with the 16th century BC according to dendrological data (Keefer 1990, 38, 40-41; Torke 1990, Abb. 1).

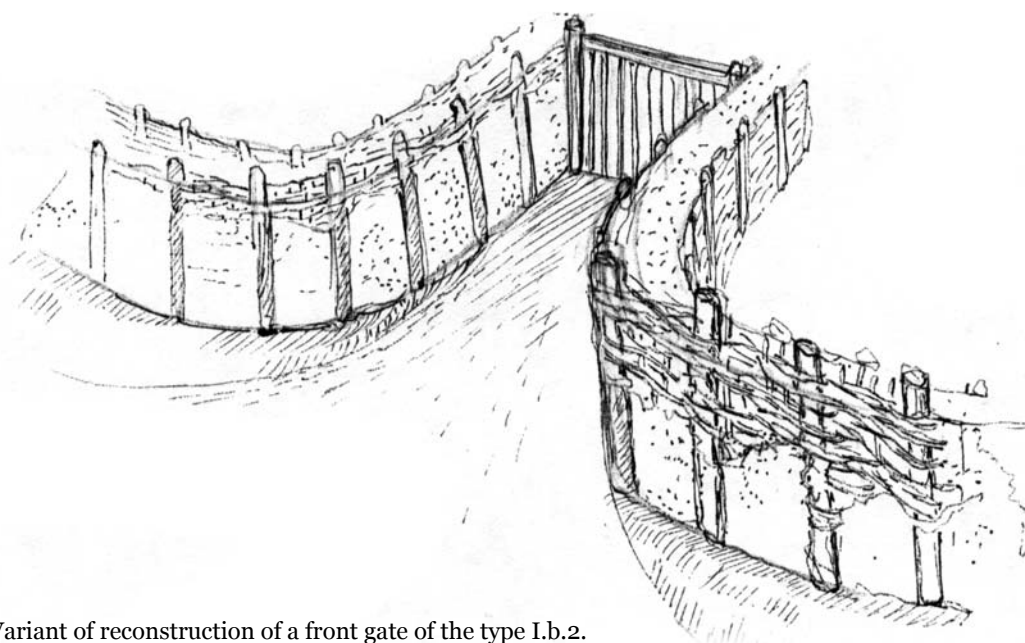
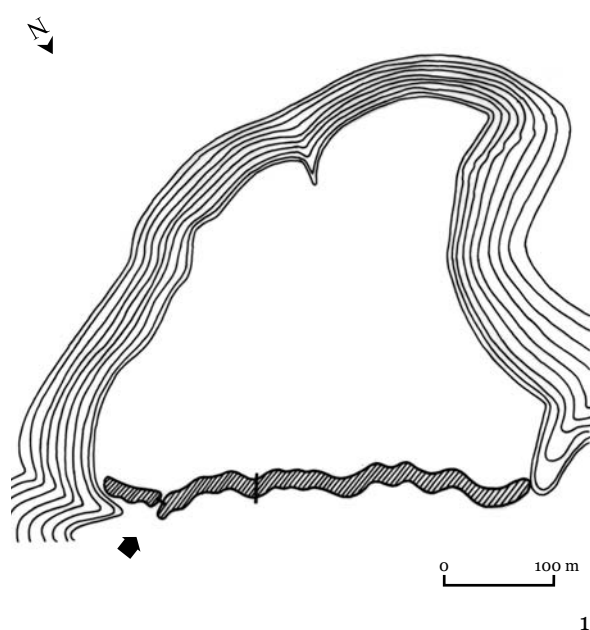
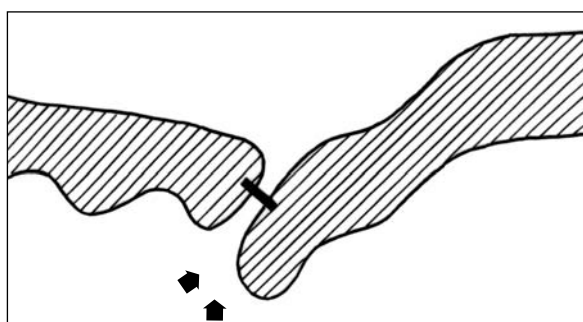


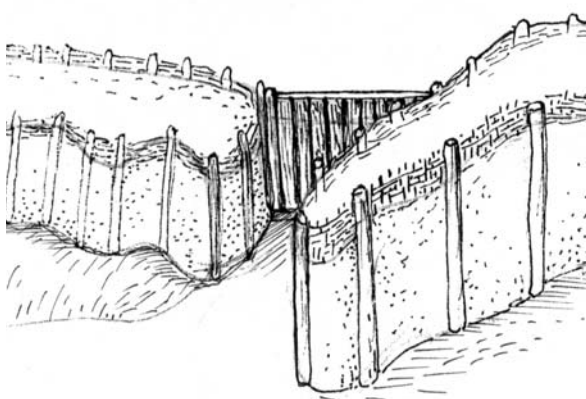
Fig. 8. Variant of reconstruction of a front gate of the type I.b.2.



1



2



3

Fig. 9. Voivodeni "Benk". 1 - Plan of the fortress (after Horedt 1981, Abb. 2); 2 - detail of the gate 3 - variant of reconstruction of the gate.

In the Tisa-Dniester area, the earliest "Zangentor" type gate was discovered at Cornești "Iarcuri" fortress (Heeb, Szentmiklosi, Wiecken 2008, 180, Abb. 3; Szentmiklosi et al. 2011, 830, fig. 12, 13) which is assigned to Cruceni-Belegiș culture and whose defensive system is dated between 1400 and 1250 BC according to ¹⁴C data.

These gates evolved¹³ in Central Europe, with respective improvements, during Hallstatt (HaC-D) and early La Tène¹⁴, gaining the most spread in Celtic oppida¹⁵ (Jansová 1960, 651-653, obr. 228; Dehn 1961, 390-396; Motyková, Drda, Rybová 1984, 331-444; van Endert 1987, 75-82; Balzer 1996, 250-254; Buchenschutz, Guillaumet, Ralston 1999, 249-255, fig. 159-161; Buchenschutz, Krausz, Ralston 2010, 305, ill. 5).

I.b.3 (fig. 11). The gates included in this typology are, in general, the same in construction as those discussed above, differing, however, in that the defensive elements turn outward¹⁶. In Tisa-Dniester space such gates have been documented at Šelestovo "Tupča" (gate no. X), Voivodeni "Benk" – *Gáva-Holihrady* culture – and Pocreaca "Cetățuie" – *Cozia-Saharna* culture.

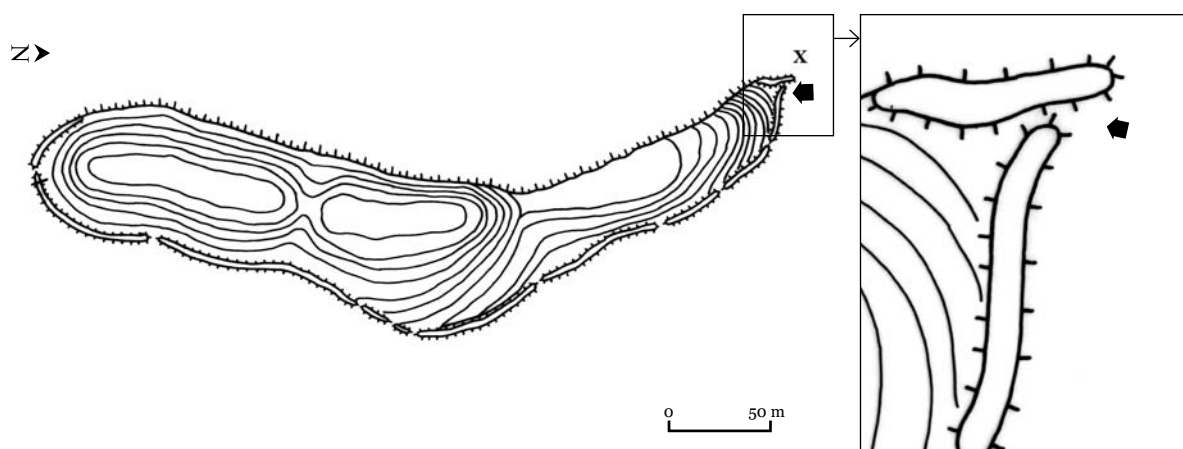
Archaeological research was conducted on the gate from Voivodeni "Benk" (fig. 9). As a result of digging and ground observations was discovered that the ditch is interrupted opposite the gate and the ends of the defensive wall turn outward forming a corridor of about 20 m length and 5 m wide. The Western end goes 10 m further compared to the Eastern one creating an additional obstacle. In order to reach the mentioned "corri-

¹³ "Zangentor" type gates will be used until the Middle Ages (Brachmann 1993, 140, Abb. 65; Böhme, Friedrich, Schock-Werner 2004, 241-242).

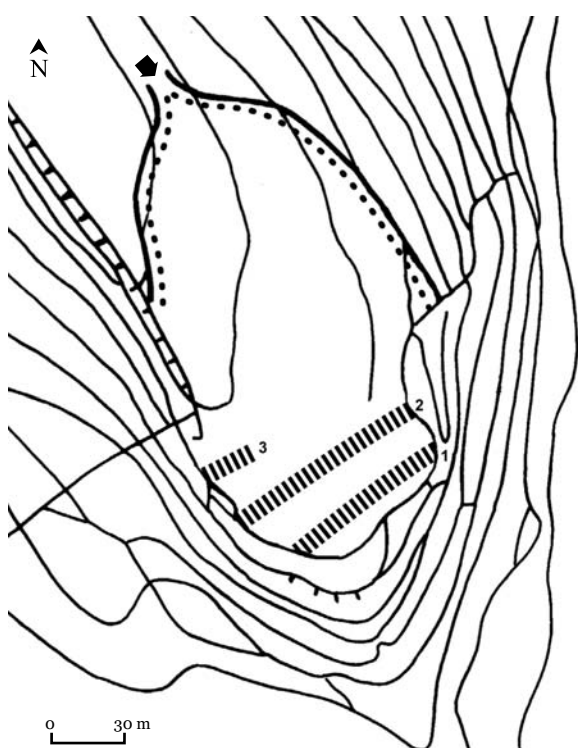
¹⁴ For example, such gates were found at the fortresses of Burgholz (Morrissey, Müller 2002, 19-22, Abb. 2, 4), Svržno (Chytráček, Metlička 2011, 353, Abb. 1), Happung "Houbrig" (Ostermeier 2012, 357, Abb. 187) etc.

¹⁵ Some researchers interested with the problem of Celtic fortifications, believe this type of gates appear in the Celtic world as a result of Mediterranean influences (Bittel 1930, 37; Dehn 1961, 395-396 etc.). Others (Jansová 1960, 651-653; Collis, Ralston 1976, 144-146; van Endert 1987, 80-81; Balzer 1996, 253) assume their local origin in Central Europe sometime at the end of Hallstatt - beginning of La Tène. However, we note that "Zangentor" type gates have had a long history starting with the Bronze Age, being used both in Central and Western Europe and in the Carpathian Arch even if it had a somewhat "clumsy" construction in the beginning.

¹⁶ The term "trichterförmig" – funnel shaped, is used in German historiography to designate such gates (Herrmann 1969, 68).



1



2

Fig. 10. Fortifications with front gates of the type I.b.3: 1 - Šelestovo "Tupča" (drawing after Балагурі 1972, рис. 2); 3 - Pocreaca "Cetățuia" (drawing after Iconomu 1996, fig. 2).

dor" one had to avoid the obstacle which involved exposing the right side of the body, unprotected by the shield. Based on the results of archaeological studies, it was found that the access corridor was "overlaid" with a layer of gravel, sometimes mixed with rocks, about 0,4-0,5 m thick (Horedt 1981, 227, Abb. 3).

Also, a similar gate was attested at Šelestovo "Tupča"¹⁷ (fig. 10/1) fortress (Смирнова 1966, 398, рис. 3; Балагурі 1972, 15, рис. 2; Щербей 2010, 5, рис. 3). Here, opposite gate no. X located on the Northern side, the wall ends turn outward forming a corridor¹⁸ about 8 m long and about 3,5 m wide. As in the case of Voivodeni "Benk", the Western end wall is longer than the Eastern one creating the same situation when the enemy had to avoid the obstacle and expose his right side in order to enter the access passage.

At Pocreaca "Cetățuia" (fig. 10/2) the defensive constructions on the West - South-West and East - North-East turn toward the inside to North - North-West forming a corridor about 15 m wide and about 20 m long¹⁹ (Iconomu 1996, 22, fig. 1).

One cannot exclude the existence of double gates at the mentioned fortifications, one placed at the entrance of mentioned corridors and the second at their end, from the precinct.

There are less known fortifications endowed with such gates in the surrounding regions. Researchers were able to detect analogies in the area of Urnfield culture in the region of Middle Danube (Mitteldanubische Urnenfelderkultur), at Nagyörbő-Várhegy (Bándi 1982, Abb. 3) and in Lusitia – at Nieder-Neudorf culture (Herrmann 1969, 68-69).

¹⁷ The "special" particularity of gate building (no. X) is not mentioned in the publications referring to this site (Смирнова 1966, 398; Балагурі 1972, 15; Щербей 2010, 5; etc.), but it can be easily deduced from the fortification plan-outline.

¹⁸ The size is calculated according to the published plans.

¹⁹ The size is calculated according to the published plan.

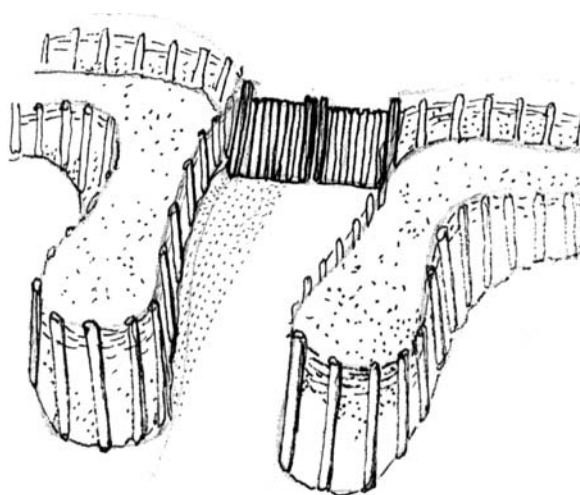


Fig. 11. Variant of reconstruction of a front gate of the type I.b.3.

II. *Side gates* are usually located on / or near the sides that have good natural defense. In cases where one single gate was found, it represented the main place of access into the fortress. For fortifications where several gates are identified, they usually play a secondary role²⁰.

Side gates are less documented for prehistoric fortifications (including Hallstatt²¹ ones) from Tisa-Dniester space. This, however, does not mean that there were no such gates. Typically, in the attempt to study fortified sites to detect access gates, the researchers are guided by existing interruptions in the “wallum”, often not suspecting they could be placed on sides where there are no clear traces of defensive constructions.

Side gate as front gate are divided according to construction particularities (fig. 2): **(II.a)** simple and **(II.b)** with additional facilities.

II.a. Simple gates were built on the outskirts of the fortress, between the end of defensive line and the rather steep headland or plateau the site was located on. They are usually situated on the left side (according the direction of attack). Thus, when going through the passageway formed between the steep slope and the defensive line end, the right side of soldier body, not covered by the

shield, was exposed to blows from those who were on the wall.

The existence of such gates at Hallstatt fortifications from Tisa-Dniester space is assumed²² at Voloka (Могилов 2010, 103, рис. 3/3), Girs’ke (Крушельницька 1993, рис. 64), Nagorjany (Кучера 1983, рис. 4/3), Şona (Vasiliev 1995, 134, fig. 5) and Sighetul Marmăţiei (Horedt 1966, 6, fig. 5).

At Voloka (fig. 12/3), for example, two lines of defense were built on the east side (the narrowest) with a roughly north-south direction. In the north, the “wallums” start right at the edge of steep promontory, while in the south they stop at a distance of about 4 m from the slope leaving a free space where the gate/gates²³ was/were probably built. Therefore, the access was possible only bypassing the ends of the two defensive lines located to the right (unprotected by the shield) of those who intended to enter the fortress.

The Sighetul Marmăţiei site (fig. 12/2), located on a headland with steep slopes, was strengthened on the most accessible side, the Western side, through a defensive line that consisted of a ditch and a wall of wood and earth. The northern end of this defensive line turns to the east, continuing its route at a distance of about 25 m, parallel to the headland slope. It was noted in the curvature area the wall remains to be much larger than in other sectors, which makes us forward the idea that this is where the wall was wider or a bastion type defensive construction was built there. Therefore, in our opinion, the access to the fortress was possible bypassing the Northeast end of the defensive line which remained on the right side (unprotected by the shield).

Also, these gates are less known in neighboring regions. For example, in Kyjatice culture such an access method is noted at Detva (Šalkovský 2001, obr. 2); in Lusitia – at Letanovice (Miroššayová 1999, obr. 3), Ľuborča (Veliačik 1983, 17, obr. 3/1) etc.; in Urnfield culture – at Kallmünz (Ostermeier 2012, 389, Abb. 215), Landersdorf “Hinterer Berg” (Schußmann 2012, 45, Abb. 18) etc.

²⁰ As a classic example can serve the well-known fortress from Micene, where the “lion’s gate” is considered main and the “northern” gate – auxiliary (Iakovides 1977, 182-193, Abb. 33-36).

²¹ For the moment, this type of gate is documented in the area of *Gáva-Holíhrady* culture only.

²² These gates are not mentioned by the authors of publications referring to the cited sites. However, after analyzing the localization plans and orthophotoplans, also based on existing analogies in Central Europe and the Balkans (Williams 1991, 64-65; Ivanova 2008, 118), the existence of such gates at Hallstatt fortresses from Tisa-Dniester space can be assumed.

²³ Two successive gates could be installed, by one in front of each “wallum”.

II.b (fig. 14). Protected side gates by additional defensive constructions are attested at the fortification of Teleac (Southern gate), Lisičniki (South-Eastern gate), Tilișca (Eastern gate) and Sărățel “Cetate”.

At Teleac, the second gate²⁴ was built on the Southern side which „ends in full length in a pronounced slope”. At present, a mound rises near the place where the gate was built (Dâmbul Lobonțului), assumed by the authors of the excavation to be a wooden watchtower designed to monitor the access to the fortress on this side (Vasiliev, Aldea, Ciugudean 1991, 28-29, fig. 3/1a, 3/2, pl. I, V/1, IX).

The side gate from Lisičniki (fig. 13/1) represents as well an auxiliary gateway. This fact is demonstrated by the works conducted in this sector. Here was built a stone wall with two facings, about 8 m wide, whose way runs parallel to the steep headland to form a 3-4 m wide corridor leading toward the entrance gate on the South-East side (Maleev 1988, 98, ryc. 5).

A similar situation was attested at Tilișca (fig. 13/2) where an 80 m long “wallum” was built parallel to the hill, thus creating a corridor which allowed monitoring the access to the gate on the Eastern side from the edges (Lupu 1989, 98, fig. 2).

At Sărățel “Cetate” the access to the Southern gate was protected by a “wallum” which began at the foot of the plateau and followed the Northeastern edge of the slope near the entrance to the fortress (Vlassa, Dănilă 1962, 342, fig. 2).

Analogies to the gates of this kind are few in the surrounding areas. For example, in Kyjatice culture a situation similar to the described above can be traced at Sály “Latorvár-tető” fortress (Matuz, Nováki 2002, 11-12, Abb. 16). For Urnfield culture, the most outstanding example is the site from Heunischenburg which was thoroughly researched by archaeological excavations, including in the gate area. This fortress had a side gate in building phase III which was flanked by a stone with two paraments, 2 m wide and over 40 m long (Abels 2002, 21, Abb. 12). An access corridor formed by two parallel wallums was discovered near the South-Eastern gate of Vinkov Vrh “Gradec” fortification (South-Eastern Slovenia)

²⁴ The first and the main one was assigned to the front gate type. See above.

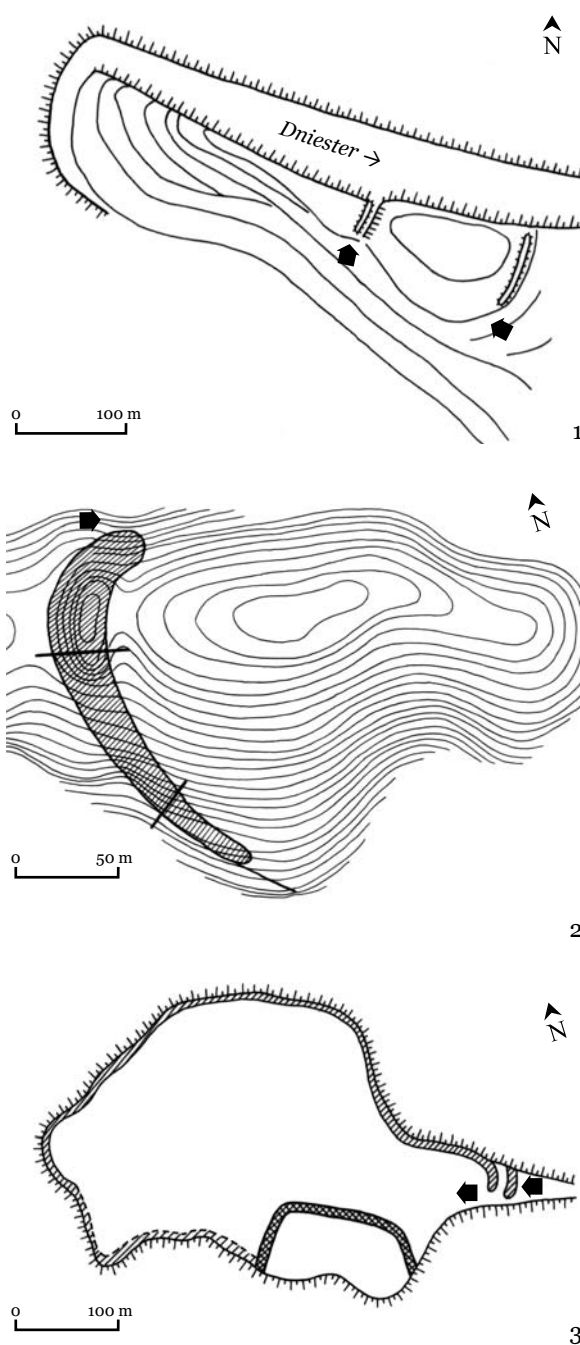


Fig. 12. Fortifications with side gates of the type IIa:
 1 - Nagorjani (after Кучера 1983, рис. 4/3);
 2 - Sighetul Marmației “Dealul Cetății” (after Horedt 1966, fig. 5); 3 - Voloka (after Могилов 2010, рис. 3/1).

dated with HaC period (Dular, Hvala 2007, 104, fig. 54/10).

The information on side gates is very scarce for Bronze Age fortresses in the area researched. For Wietenberg culture, the entry method into Coldău fortress is known with the access possible

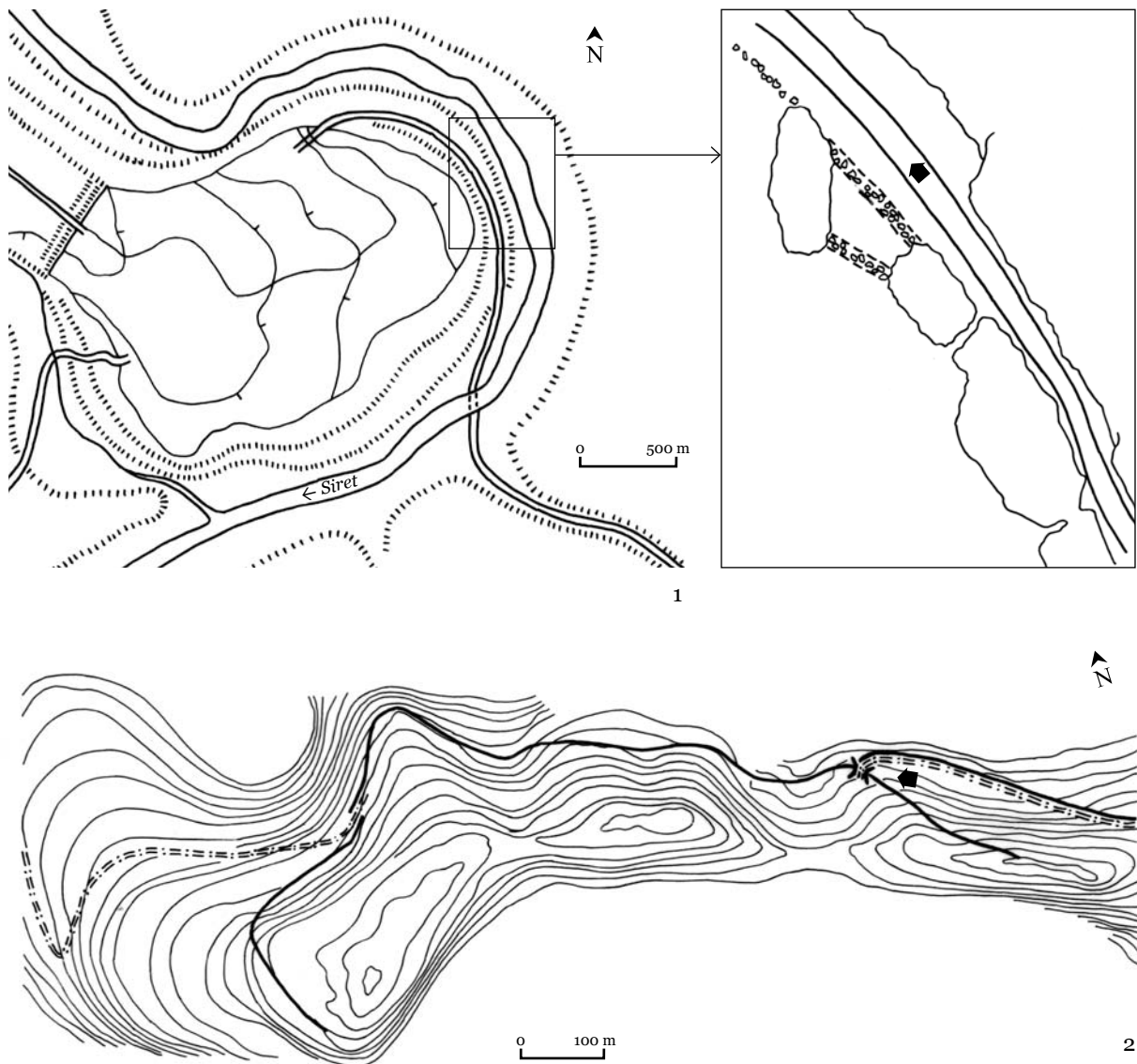


Fig. 13. Fortifications with side gates of the type IIA: 1 - Lisičniki (after Maleev 1988, ryc. 1 and 5); 2 - Tilișca "Cățânaș" (after Lupu 1989, fig. 2).

only passing by the defensive ditch bottom on the North side and then turning toward South to the entry gate (Vlassa 1973, 12, fig. 1).

It is noted from the above presented data that during the Hallstatt age a special attention was given to building entry gates and access ways. Although, the archaeological research of these objectives is still at an early stage, it can be stated that the builders of that time had sound knowledge of military architecture. As seen in most cases were gates were built, and sometimes accompanied by some auxiliary defensive constructions, they were designed in such a way for those who wished to enter

the fortress to always be exposed to shots (attack) from the right side, unprotected by the shield.

Later, only in the 1st century BC this gate defense method will find reflection in written resources.

"Special pains should be taken that there be no easy avenue by which to storm the wall. The roads should be encompassed at steep points, and planned so as to approach the gates, not in a straight line, but from the right to the left; for as a result of this, the right hand side of the assailants, unprotected by their shields, will be next the wall" (Vitruvius 1914, I, V, 2).

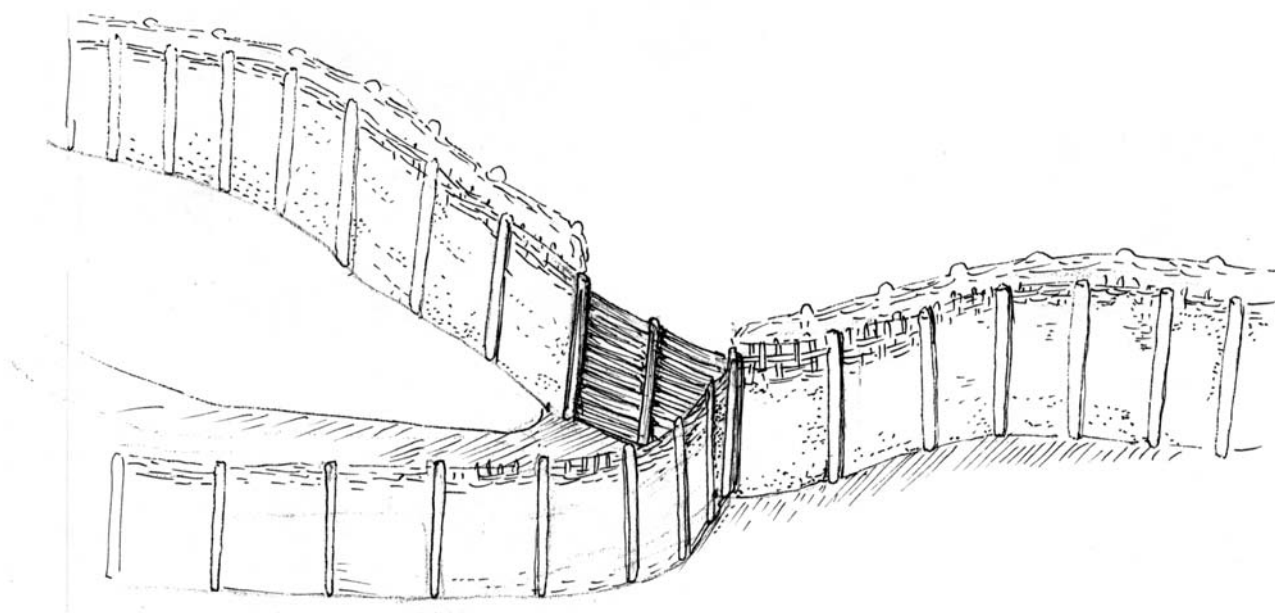


Fig. 14. Variant of reconstruction of a side gate of the type II.b.

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Tipologia și evoluția porților și căilor de acces în cetățile hallstattiene timpurii din spațiul tiso-nistean

Rezumat

Pentru intervalul de timp, cuprins între a doua jumătate a sec. XII a. Chr. și începutul sec. VIII a. Chr., în spațiul tiso-nistean au fost documentate cca 140 fortificații. Majoritatea lor (121) sunt concentrate în arealul culturii Gáva-Holíhrady, restul, într-un număr mai mic, sunt cunoscute în culturile: Vârtop, Chișinău-Corlăteni, Babadag, Cozia-Saharna și Insula Banului.

Indiferent de apartenența culturală, fortificațiile hallstattiene timpurii conțin o serie de trăsături comune: amplasarea în locuri strategice; prezența elementelor defensive artificiale („val”, șanț etc.); adaptarea sistemului defensiv la particularitățile terenului pe care acestea sunt amplasate etc.

Un element foarte important în cadrul așezărilor fortificate îl reprezintă modalitatea de intrare în incintă. Astfel, accesul trebuia să fie lesnicios pentru locuitorii cetății și dificil pentru inamic.

În prezent dispunem de informații directe sau indirecte cu privire la porțile de intrare în cca 36 fortificații din arealul culturii Gáva-Holíhrady, în două din cultura Vârtop și în câte una – Babadag și Cozia-Saharna.

În funcție de locul de amplasare a porților, ele pot fi divizate în: (I) – porți frontale și (II) – porți laterale.

I. Porțile frontale, de regulă, sunt plasate aproximativ la mijlocul liniei defensive ce fortifica situl pe cea mai accesibilă latură. Actualmente vestigiile lor apar ca o simplă întrerupere în linia defensivă (Ciceu-Corabia „Măgura”, Tállya „Óvár”, Gorodnicja, Preutești, Portărești „Cetățuie” etc.), sau însoțite de unele amenajări defensive suplimentare (Călinești Oaș, Subcetate, Teleac, Voivodeni „Benk”, Pocreaca „Cetățuie” etc.).

II. Porțile laterale sunt plaste, de regulă, pe/sau în apropierea laturilor ce dispun de o bună apărare naturală. În cazurile când este atestată o singură poartă, ea reprezintă principalul loc de acces în cetate. Iar la fortificațiile la care sunt identificate mai multe porți, ele, de obicei, joacă un rol secundar.

Porțile laterale, ca și cele frontale, în funcție de particularitățile de construcție, pot fi divizate în: simple (Voloka, Girs'ke, Sighetul Marmației etc.) și cu amenajări suplimentare (Lisičniki, Tilișca, Sărățel „Cetate” etc.).

Porți similare, inclusiv cele protejate de unele construcții defensive adiacente, capătă o largă răspândire și în mediile culturale din teritoriile limitrofe, mai ales, din Vest (Kyjatice, Lausitzer, Urnenfeld etc.).

Ca urmare a studierii porților și căilor de acces s-a observat că lor le-a fost acordată o atenție deosebită, ceea ce presupune existența în perioada hallstattiană a unor cunoștințe temeinice în domeniul arhitecturii militare. În majoritatea cazurilor când au fost amenajate porți, însoțite de unele construcții defensive auxiliare, acestea au fost concepute în așa mod ca cel care intenționa să intre în cetate era întotdeauna expus loviturilor (atacului) din partea dreaptă, neapărată de scut.

Lista ilustrațiilor:

Fig. 1. Harta răspândirii fortificațiilor la care au fost atestate porți de intrare.

Fig. 2. Tipologia porților de intrare.

Fig. 3. Fortificații cu porți frontale de tip I.a: 1 - Gorodničja (după Maleev 1988, рис. 8); 2 - Tállya „Óvar” (după Matuz, Nováki 2002, Abb. 5); 3 - Preutești (după Ursulescu, Popovici 1997, fig. 2); 4 - Ardanovo „Boguslav” (după Мойжес 2011, рис. 3).

Fig. 4. Variantă de reconstituire a unei porți frontale de tip I.a.

Fig. 5. Orosháza. 1 - Ortofotoplan (după Google Earth Pro); 2 - planul fortificației (după Banner 1939, Taf. II, K-K).

Fig. 6. Teleac. 1 - Fotografie aeriană, proiecție dinspre nord-vest (după Panorame istorice 2012, 45); 2 - plan topografic (după Ciugudean 2012, fig. 2); 3 - poarta de intrare, detaliu (desen după Ciugudean 2012, fig. 2).

Fig. 7. Subcetate „Dealul Petriș”. 1 - Planul cetății; 2 - poarta de intrare, detaliu (după Vasiliev 1995, pl. I).

Fig. 8. Variantă de reconstituire a unei porți frontale de tip I.b.2.

Fig. 9. Voivodeni „Benk”. 1 - Planul cetății (după Horedt 1981, Abb. 2); 2 - poarta de intrare, detaliu; 3 - variantă de reconstituire a porții.

Fig. 10. Fortificații cu porți frontale de tip I.b.3: 1 - Šelestovo „Tupča” (desen după Балагурі 1972, рис. 2); Пocreaca „Cetățuia” (desen după Iconomu 1996, fig. 2).

Fig. 11. Variantă de reconstituire a unei porți frontale de tip I.b.3.

Fig. 12. Fortificații cu porți laterale de tip II.a: 1 - Nagorjani (după Кучера 1983, рис. 4/3); 2 - Sighetul Marmației „Dealul Cetății” (după Horedt 1966, fig. 5); 3 - Voloka (după Могилов 2010, рис. 3/1).

Fig. 13. Fortificații cu porți laterale de tip II.a: 1 - Lisičniki (după Maleev 1988, рис. 1 și 5); 2 - Tilișca „Cățanaș” (după Lupu 1989, fig. 2).

Fig. 14. Variantă de reconstituire a unei porți laterale de tip II.b.

Типология и эволюция ворот и путей доступа в раннегальштатские крепости Тисо-Днестровского пространства

Резюме

На Тисо-Днестровском пространстве зарегистрировано около 140 укреплений, относящихся к периоду времени между второй половиной XII и началом VIII века до н.э. Большинство из них (121) сконцентрировано в ареале культуры Гава-Голиграды, остальные, в меньшем количестве, известны в культурах Выртоп, Кишинэу-Корлэтенъ, Бабадаг, Козия-Сахарна и Инсула-Банулуй.

Независимо от культурной принадлежности, раннегальштатские укрепления отличает ряд общих черт: расположение в стратегических местах; наличие искусственно созданных оборонительных элементов («вал», ров и т.п.); приспособленность оборонительной системы к особенностям рельефа местности и т.д.

Большое значение в укрепленных поселениях имеет способ доступа в крепость: он должен быть легким для ее обитателей и трудным для неприятеля.

Сегодня мы располагаем прямыми либо косвенными данными относительно ворот 36 крепостей ареала культуры Гава-Голиграды, двух крепостей, принадлежащих к культуре Выртоп, и еще двух, относящихся к культурам Бабадаг и Козия-Сахарна.

В зависимости от расположения ворот эти крепости могут быть подразделены на два типа: (I) – с фронтальными воротами и (II) – с боковыми воротами.

I. Фронтальные ворота обычно размещаются примерно посередине оборонительной линии, укрепляющей крепость с самой доступной стороны. На сегодняшний день их место можно обнаружить по простому разрыву в оборонительной линии (Чичеу-Корабия «Мэгура», Талля «Овар», Городница, Преутешть, Пор-

тэрешть «Четэцуе» и т.д.), иногда со следами дополнительных оборонительных сооружений (Кэлинешть Оаш, Субчетате, Теляк, Войводень «Бенк», Покряка «Четэцуе» и т.д.).

II. Боковые ворота обычно расположены на сторонах, защищенных природными факторами. В некоторых случаях для доступа в крепость служили единственные ворота. В крепостях, где было несколько ворот, дополнительные обычно играли второстепенную роль.

Как боковые, так и передние ворота в зависимости от конструктивных особенностей можно подразделить на простые (Волока, Гирське, Сигетул Мармацией и т.д.) и с дополнительными оборонительными приспособлениями (Лисичники, Тилишка, Сэрэцел «Четэцуе» и т.д.).

Похожие ворота, в том числе защищенные прилегающими оборонительными сооружениями, получили широкое распространение и в культурных средах соседних территорий, особенно на Западе (Киятице, Лазуитцер, урненфельд и пр.)

В результате исследований крепостных ворот и путей доступа можно отметить, что их расположению и конструкции уделялось особое внимание, а это подразумевает существование в гальштатский период основательных знаний в области военной архитектуры. В большинстве случаев, когда ворота были снабжены вспомогательными оборонительными сооружениями, они были задуманы таким образом, чтобы тот, кто намеревался войти в крепость, всегда подвергался ударам (атаке) с правой стороны, не защищенной щитом.

Список иллюстраций:

Рис. 1. Карта распространения укреплений, где были обнаружены ворота.

Рис. 2. Типология ворот.

Рис. 3. Укрепления с фронтальными воротами типа I.a: 1 - Городница (по Maleev 1988, гус. 8); 2 - Талля «Овар» (по Matuz, Novák 2002, Abb. 5); 3 - Преутешть (по Ursulescu, Popovici 1997, fig. 2); 4 - Арданово «Богуслав» (по Мойжес 2011, рис. 3).

Рис. 4. Вариант реконструкции фронтальных ворот типа I.a.

Рис. 5. Орошхаза. 1 - Ортофотоплан (по Google Earth Pro); 2 - план укрепления (по Banner 1939, Taf. II, K-K).

Рис. 6. Теляк. 1 - Аэрофотосъемка, проекция с северо-запада (по Panorame istorice 2012, 45); 2 - топографический план (по Ciugudean 2012, fig. 2); 3 - деталь ворот (рисунок по Ciugudean 2012, fig. 2).

Рис. 7. Субчетате «Дялул-Петриш». 1 - План крепости; 2 - деталь ворот (по Vasiliev 1995, pl. I).

Рис. 8. Вариант реконструкции фронтальных ворот типа I.b.2.

Рис. 9. Войводень «Бенк». 1 - План крепости (по Horedt 1981, Abb. 2); 2 - деталь ворот; 3 - вариант реконструкции ворот.

Рис. 10. Укрепления с фронтальными воротами типа I.b.3: 1 - Шелестово «Тупча» (рисунок по Балагурі 1972, рис. 2); Покряка «Четэцуя» (рисунок по Isonomu 1996, fig. 2).

Рис. 11. Вариант реконструкции фронтальных ворот типа I.b.3.

Рис. 12. Укрепления с боковыми воротами типа II.a: 1 - Нагоряны (по Кучера 1983, рис. 4/3); 2 - Сигетул-Мармацией «Дялул-Четэций» (по Horedt 1966, fig. 5); 3 - Волока (по Могилев 2010, рис. 3/1).

Рис. 13. Укрепления с боковыми воротами типа II.a: 1 - Лисичники (по Maleev 1988, гус. 1 и 5); 2 - Тилишка «Кэцэнаш» (по Лури 1989, fig. 2).

Рис. 14. Вариант реконструкции боковых ворот типа II.b.

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