
CORE ISSUES OF LATE LA TÈNE PERIODIZATION IN ROMANIA

Daniel Spânu*

Abstract: *The periodization of Late La Tène period in Romania is determined by three main flows of imports: (1) the import of Rhodian and Cnidian amphorae during the 2nd century BC, (2) the import of drachms and denarii during the first half of the 1st century BC and (3) the import of Roman fibulae at the turn of the Millennium. The import of Rhodian and Cnidian amphorae can be correlated to the beginnings (in the LT C2 phase) of both Poieniști - Lucașeuca culture and Cetățeni - Vadul Vacilor group. They did not penetrate the Carpathian arch. The decline of their import was followed by the massive influx of drachms and denarii that had reached this time also Transylvania. This new import of silver coins has induced a major reconfiguration of local cultural structures. It is probable that the Padea - Panagjurski Kolonii elites were involved in the processes of receiving and redistributing the imported silver coins beyond the mountains. The jewellery hoards already reflect a stage when the Roman stipendia were absorbed in the local culture. Their emergence allows the distinction between LT D1 phase (without hoards) and LT D2 phase (with hoards). Further more, their analysis allows a distinction between LT D2a and LT D2b phases. This transition corresponds to the abandonment of the middle LT scheme of fibulae. The end of Poieniști - Lucașeuca and Padea - Panagjurski Kolonii funerary traditions could also be synchronized with the transition from the LT D2a phase to the LT D2b phase. The imposition of the late LT scheme of fibulae (LT D2b) could be synchronized with the import of the earliest Roman fibulae, with the intensifying of dwelling in local settlements and with the erection of the hill-forts and sanctuaries. To the end of LT D2b phase, the depositions of jewellery hoards have stopped and some settlements have been abandoned. Thus, the most iconic monuments of the Grădiștea de Munte - Poiana group (small oppida, hill-forts, jewellery hoards) occurred at once only in the second half of the late La Tène period (LT D2). The post-LT phase of the Grădiștea de Munte - Poiana culture (1st century AD) is characterized by the progressive adoption of Roman goods and cultural models, concentrated in certain settlements and hill-forts. This time, the depositional and funeral rituals have been drastically blurred.*

Rezumat: *Periodizarea epocii La Tène târziu în România este determinată de trei fluxuri de importuri distincte: (1) importul de amfore de Rhodos și Cnidos în sec. al II-lea a.Chr., (2) importul de drahme și denari din prima jumătate a sec. I a.Chr. și (3) importul de fibule romane imperiale timpurii de la răspântia dintre milenii. Importul amforelor rhodiene și cnidiene poate fi sincronizat cu începuturile culturii Poieniști - Lucașeuca (în faza LT C2) și cu grupul Cetățeni - Vadul Vacilor. Aceste amfore nu au pătruns în interiorul Arcului Carpat. Declinul acestui import a fost urmat de aflusul masiv de drahme și denari care au pătruns de această dată și în Transilvania. Noul import de monede din argint a determinat o reconfigurare a structurilor culturale locale. Foarte probabil, elitele Padea - Panagjurski Kolonii au fost implicate în procesele de receptare și redistribuire dincolo de munți a monedelor importate din argint. Tezaurile cu podoabe reflectă o etapă în care stipendiile romane au fost absorbite deja în fondul cultural local. Apariția lor permite o diferențiere între o fază LT D1 (fără tezaure) și o fază LT D2 (cu tezaure). Mai mult, analiza tezaurelor permite o distincție între fazele LT D2a și LT D2b. Această tranziție corespunde cu abandonarea fibulelor de schemă mijlocie La Tène. Impunerea fibulelor de schemă*

* Institutul de Arheologie „Vasile Pârvan”, București. e-mail: hazdrik@yahoo.com

târzie La Tène (în faza LT D2b) poate fi sincronizată importului celor mai timpurii fibule romane imperiale, cu intensificarea locuirii în aşezările locale şi cu ridicarea fortificaţiilor şi a sanctualelor montane. La finele fazei LT D2b, depunerea de tezaure cu podoabe a încetat şi unele aşezări au fost abandonate. Astfel, cele mai reprezentative monumente ale grupei Grădiştea de Munte - Poiana (mici oppida, fortificaţii montane şi tezaure cu podoabe) pot fi datate numai în cea de a doua jumătate a epocii La Tène târziu (LT D2). Faza post-La Tène a culturii Grădiştea de Munte - Poiana (sec. I p.Chr.) este caracterizată de adoptarea progresivă a bunurilor şi modelelor culturale romane concentrate în anumite aşezări şi fortificaţii montane. Totodată, practicile depoziţionale şi funerare s-au diminuat drastic.

Keywords: Late La Tène chronology; 'Dacian' late La Tène culture; Poieneşti - Lucaşeuca culture; Padea - Panagjurski Kolonii group; late Republican denarii; depositional practices; funerary practices, oppida, hill-forts.

Cuvinte cheie: Late La Tène chronology; 'Dacian' late La Tène culture; Poieneşti - Lucaşeuca culture; Padea - Panagjurski Kolonii group; late Republican denarii; depositional practices; funerary practices, oppida, hill-forts.

1. PREAMBLE

On the territory of today's Romania, three late La Tène cultural groups have been distinguished: the Poieneşti - Lucaşeuca culture (further: PL), the Padea - Panagjurski Kolonii group (further: PPK) and the late La Tène 'Dacian' culture (Fig. 1). The PPK group consists of a small cremation necropoleis with weapons and harness. The PL culture was defined based on the analysis of large cremation necropoleis. The main discoveries of the 'Dacian' late La Tène culture¹ are the settlements and the hoards. A denomination without reference to ethnicity could be constituted by joining the names of the two most iconic discoveries: the *oppidum*-settlement at Poiana² and the hoards with golden spiral bracelets from Grădiştea de Munte³. In fact, the most spectacular fortifications and sanctuaries built on shaped stone from pre-Roman Dacia were also discovered at Grădiştea de Munte⁴. Thus, the term 'Grădiştea de Munte - Poiana' (further: GMP) could be an appropriate denomination.

¹ Horedt 1976, 127: „die dakische Spätlatènezeit”. The only denomination using an iconic discovery name, without echoes in further research, was promoted by Moscalu 1983, 187-188: 'the Sarmizegetusa culture'.

² Of all pre-Roman 'Dacian' settlements, the highest number of fibulae (Vulpe, Teodor 2003, 206-230), ancient coins (over 1200: Mitrea 2011), imported ceramics (Popescu 2013, 26, chart. 2), imported glass (Boţan 2015, 142, graph 1) was discovered at Poiana (Galaţi county). In spite of long researches, the importance of this settlement has not been satisfactory elucidated.

³ Spânu 2010; Spânu 2012a, 167-178.

⁴ See the syntheses of Ştefan 2005, 81-102 and Florea 2011, 106-151.

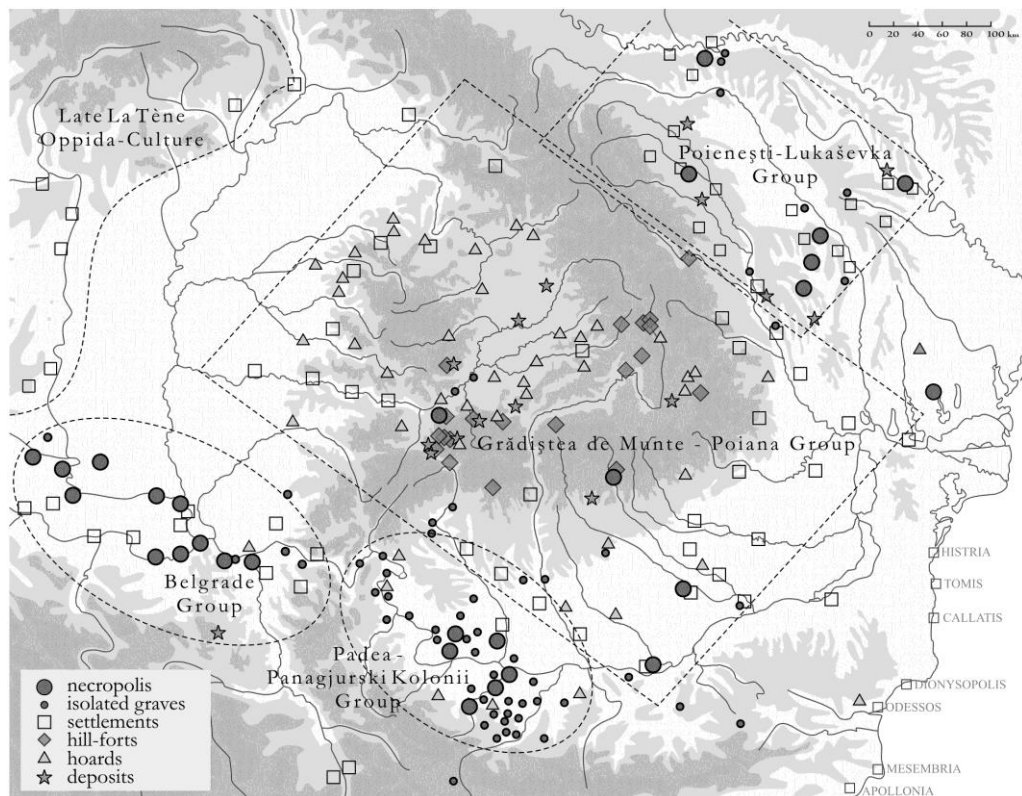


Fig. 1. Main cultural groups in late La Tène Romania.

The chronology of PL culture was plenary debated by Mircea Babeș and recently revised by Vasile Iarmulschi⁵. The PPK group has been defined almost five decades ago by Zenon Woźniak and other scholars⁶. Noteworthy remarks on the periodization of this group have recently been proposed by Emilian Teleagă⁷. In Romanian studies, the unitary character of the so-called ‘Getic-Dacian’ (or ‘Dacian-Getic’) culture has been constantly emphasized, both geographically and chronologically. Periodization proposals were isolated and devoid of historiographic echoes. For this reason, the chronology of the GMP group requires a particular approach and a critical review.

⁵ Babeș 1993, 128-162; Iarmulschi 2016.

⁶ Woźniak 1974, 65-138; Dimitrova, Gizdova 1975; Zirra 1976 etc; cf. Theodossiev 2000.

⁷ Teleaga 2016.

2. MAIN CHRONOLOGICAL DEBATES ON HOARDS AND SETTLEMENTS

In 1973, Kurt Horedt proposed a tripartite periodization of the 'Dacian' jewellery hoards: phase 1 (125-75 BC) was defined by the hoards with knot-fibulae, phase 2 (75-25 BC) was defined by shield-fibulae and phase 3 (25 BC - 25 AD) was defined by the spoon-fibulae. Each phase matched a distinct stage of the late La Tène period (D1, D2 and D3)⁸. Three years later, Horedt distinguished with very brief arguments a later phase (La Tène D4), corresponding to the last three quarters of century prior to the Roman conquest of Dacia⁹. In the further research, two amendments to the Horedt's periodization were drafted:

1st Amendment. Horedt framed the first phase of the jewellery hoards according to an earlier closure dating of the Dyrrhachian and Apollonian mints (ca. 100 BC). Based on further numismatic studies, Mircea Babeş pointed out that the latest Thasian tetradrachms and the Dyrrhachian and Apollonian drachms have been issued after the beginning of the 1st century BC¹⁰. In other words, the emergence of the jewellery hoards with tetradrachms and drachms cannot be synchronized with the very beginning of Late La Tène period.

2nd Amendment. The chronological split between shield-fibulae (Horedt phase 2) and spoon-fibulae (Horedt phase 3) is artificial: the two types are sometimes associated and both of them occur alongside spiral bracelets with ending plates in several hoards. Without exception, all these three types are dissociated from knot-fibulae. Both amendments allow the establishment of a simplified periodization: 1 – the phase of knot-fibulae (Spânu phase 1 = Horedt phase 1) and 2 – the phase of spiral bracelets, shield-fibulae and spoon-fibulae (Spânu phase 2 = Horedt phases 2-3)¹¹. The consequences for the local chronology have not been sufficiently deepened and require a full revision of the periodization of the GMP culture. My paper aims to fathom this issue.

⁸ Horedt 1973.

⁹ Horedt 1976, 130: „Da sich die Latènezeit in Dazien gegenüber anderen Gegenden etwa um ein Jahrhundert verlängert, müßte noch eine vierte Periode, Latène D4, angenommen werden, deren Inhalt und Dauer etwa von 25-100/106 u.Z. noch schwer abzugrenzen sind.“ cf. Rustoiu 1997, 79; Spânu 2012a, 145.

¹⁰ Babeş 1975, 134. His analysis of issues-association (Babeş 1975, 131, fig. 6) highlighted the importance of foreign currency for the chronology of the local culture; cf. Lockyear 1996, 387, fig. 14/1.

¹¹ Spânu 2002, 98, fig. 19; Spânu 2012a, 131-133, fig. 44 and 142-143, fig. 48. Different views, without convincing arguments, have been advanced by Rustoiu 1997, 79 (shield-fibulae dated in LT D1 phase and spoon-fibulae framed throughout the whole LT D2 phase!) and Rustoiu 2016a, 78, n. 18 (faithful attachment to Horedt's periodization).

The correlation of Horedt's periodization with the documentary evidence of the pre-Roman settlements was undertaken by Mircea Babeş. His paper was the only coherent contribution to the 'Dacian' settlements chronology in the literature of the last decades. He also provided a pertinent synthesis of numismatic data that maintains its topicality¹². The system of Mircea Babeş is quadripartite¹³. The horizons I-III corresponds to the La Tène D period, but their classification and consistency are questionable. Subsequent discoveries¹⁴ and papers¹⁵ sometimes contradicted the framing of various settlements in the three horizons. Horizon IV is individualized by the occurrence of imperial imports, in particular early Roman fibulae. Practically, there are settlements with only late La Tène materials (Babeş horizons I-III) and settlements with late La Tène and Imperial-time materials (Babeş horizon IV = Horedt phase 4).

The low chronological relevance of contexts in late La Tène settlements reveals by contrast the importance of 'Dacian' hoards as the potential backbone of local periodization. The relative and absolute chronology of the hoards is based on the statistics of associations and dissociations of representative jewellery types, but also on the expressiveness of the numismatic material. As evidenced by the studies of Horedt and Babeş, the emergence of the local silver jewellery is particularly correlated with the dynamics of the regional monetary circulation of the late Hellenistic and Republican era.

¹² Babeş 1975, 130-133, fig. 6; cf. Lockyear 1996, 387, fig. 14.1.

¹³ Babeş 1975, 136-137, fig. 7.

¹⁴ For example, the spoon-fibula from Cârломăneşti discovered in 1975 (first illustrated by Babeş 2010, 143, pl. 6) or the Almgren 67 type fibula from Zimnicea discovered in 1949 (first illustrated by Spânu 2006, 302, fig. 4/4) no longer allow the exclusive framing of these settlements in Babeş' 1st horizon.

¹⁵ The 1975 study was based on partial information from several preliminary reports. Numerous monographs would appear later: Macrea, Glodariu 1976; Crişan 1978; Berciu 1981; Preda 1986; Glodariu, Moga 1989; Lupu 1989; Ursachi 1995; Vulpe, Teodor 2003; Măndescu 2006; Irimia *et alii* 2011 etc. In general, these monographs contain long lists of materials without contextual framing and sometimes without technical data (e.g. Ursachi 1995). The stratigraphies are ambiguous; features with chronological relevance have been rarely reported; dwelling structures and fortifications have not been adequately documented. The lack of methodological uniformity and the incomplete character of the research jeopardize the overall image. In recent synthesis (e.g. Florea 2011; Pupeză 2012) a critical approach to the state of information was omitted, but sterile theorizations were developed. Thus, Babeş's paper still retains its methodological topicality.

3. IMPORTED CURRENCY AND HOARDING STAGES

In the second half of the 2nd century BC and the first half of the 1st century BC, the monetary circulation in the north-Balkan region was characterized by the successive distribution of four silver issues minted under the control of Rome: (1) tetradrachms of the province of Macedonia Prima, minted at Amphipolis, (2) tetradrachms of Thasos, (3) drachms of Dyrrhachium and Apollonia Adriatica, (4) late Republican denarii.

The tetradrachms of Amphipolis were issued only between 158 and 148 BC and circulated until the beginning of the 1st c. BC¹⁶. The mint output of Thasos probably started shortly after the closure of the Amphipolitan mint and was intensified during the First and Second Mithridatic Wars, then suddenly stopped ca. 75/70 BC¹⁷. The distribution routes of the tetradrachms crossed Thrace, the Balkan Mountains, the Lower Danube area and the Carpathian Mountains (the so-called 'Thracian channel'; Fig. 2)¹⁸. On the territory of Romania, the hoards containing only Amphipolitan tetradrachms are rather rare. Hoards with both Macedonia Prima and Thasos tetradrachms are more frequent and reflect a period of mixed circulation and hoarding¹⁹. In the north-Balkan regions, the Thassian tetradrachms took the Amphipolitan and the local barbarian issues out of circulation²⁰.

Under Rome's requirement, the mint output of both cities Dyrrhachium and Apollonia has been intensified in the same circumstances of the Mithridatic Wars. The drachms of Dyrrhachium and Apollonia spread over the Dinaric Alps, in the Sava-Drava corridor and in Transylvania (the 'Illyrian channel'; Fig. 2)²¹. Most of the hoards on the territory of Romania contain drachms issued in the final periods of activity of the two mints (Dyrrhachium group V and Apollonia group B II)²². Recent research dates back the closure of these mints around 60/55 BC or even 40 BC²³. The large number of hoards discovered in Serbia and Romania, composed entirely of drachms,

¹⁶ Gaebler 1935, 33; Winkler 1955, 55; Glodariu 1971, 72; Glodariu 1976, 47, 222-224; Preda, Marinescu 1986, 59; Preda, Palincaş 2005, 86.

¹⁷ Poenaru-Bordea, Condrea 1972, 121-122; Callataj 2012, 311 with older literature.

¹⁸ Bogdan-Cătănciu 1975, 182, fig. 4.

¹⁹ Winkler 1955, 42-55; Glodariu 1971, 72; Preda, Marinescu 1986, 59; Conovici 1986, 80; Torbagyi 1986, 25.

²⁰ Chirilă, Mihăescu 1969, 38; Bogdan-Cătănciu 1975, 187; Preda, Marinescu 1986, 59; cf. Babeş 1975, 131-132; Paunov, Prokopov 2002, 91.

²¹ Conovici 1986, 75-78, fig. 3.

²² Conovici 1985, 41; Conovici 1986, 79.

²³ Petronyi 1994; Petronyi 1996; Meta 2012, 22; Ujes-Morgan 2012, 369-370. An earlier date (ca. 83 BC) was proposed by Conovici 1985, 40-41 and Conovici 1986, 70.

indicate a short but distinct period of their circulation, subsequent to the Thassian tetradrachms circulation, but prior to the import of the Republican denarii²⁴.

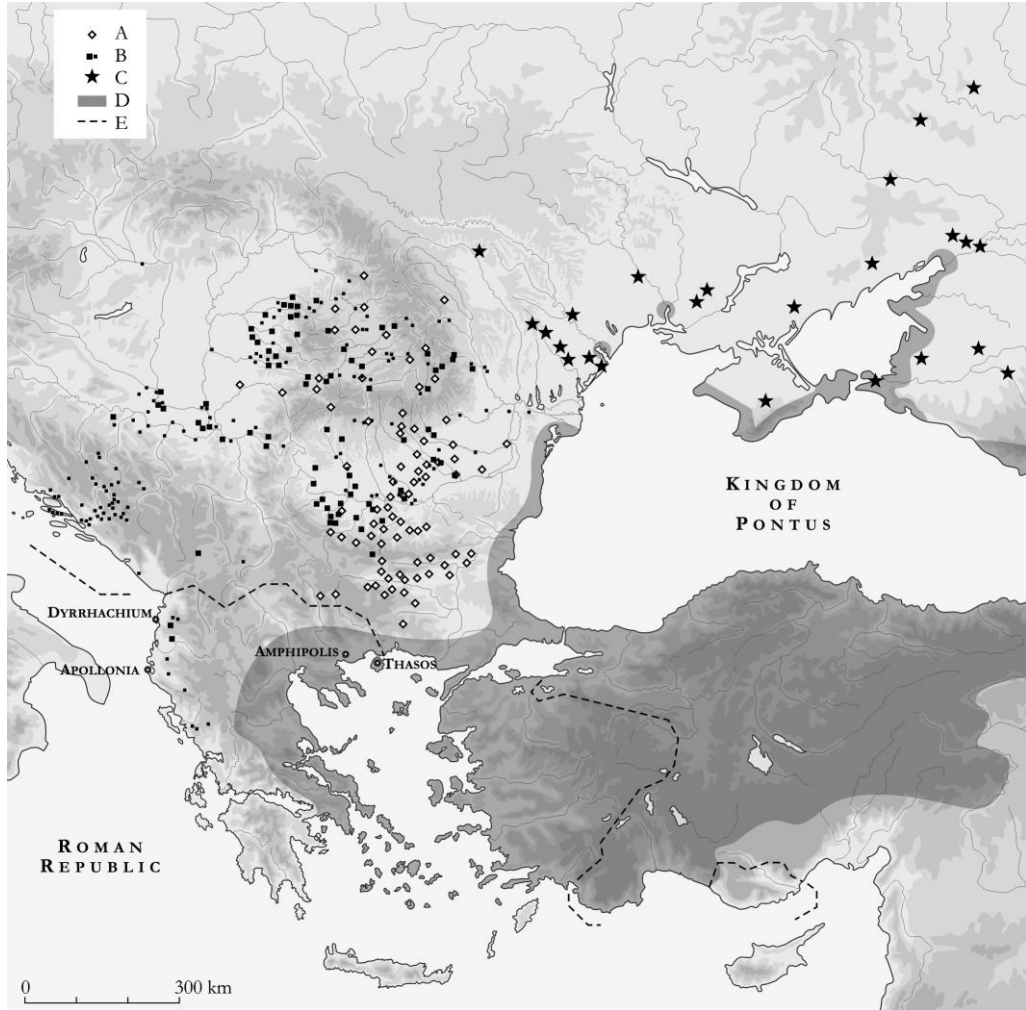


Fig. 2. Imports in the time of Mithridatic Wars. A: hoards of Thassian and/or Amphipolitan tetradrachms (after Bogdan-Cătănciu 1975, 182, fig. 1); B: hoards or isolated coins of Dyrhachian and Apollonian drachms (after Conovici 1986, 78, fig. 3.); C: Mithridatic imports (after Simonenko 2001, 104, fig. 7); D: Kingdom of Pontus and conquests of Mithridates 6th Eupator in 88 AD; E: frontiers of the Roman Republic before the Mithridatic Wars.

²⁴ Conovici 1985, 41.

Most of Republican denarii discovered in Romanian hoards were minted between 110/90 and 80 BC, but their import in Dacia occurred in the years 75-65 BC²⁵. Shortly after this, the import was considerably diminished²⁶. The first batches of Republican denarii arrived in Dacia during the late circulation phase of the drachms²⁷. The amount of imported Republican currency is impressive: more than 1000 monetary discoveries, some of them with dozens or hundreds of denarii were recorded²⁸. The import of this large mass of Roman coins led to the withdrawal from circulation of the Adriatic drachms after the mid-1st century BC. Thus, the Republican denarii became the main currency of pre-Roman Dacia²⁹. A later wave of imported Roman currency, but much lower than the previous one, dates back to the Augustan period³⁰. Starting with the reign of Tiberius and until the time of Domitianus, the penetration of Roman imperial currency was rather precarious. In pre-Roman Dacia, the amount of early Imperial denarii never competed against the Republican imported issues³¹.

Synoptic perspective. The complexity and the harsh character of the numismatic literature could impede a simplified image of the regional monetary circulation, but a synopsis can be discerned by methodological conceptualization. The dynamics of ancient coinage is ruled by four processes: mint, circulation, hoarding and withdrawal (through deposition or recycling). The invariable succession of these processes and the associative relations between different issues allow the establishment of a relative periodization of the local monetary circulation. In the matrix of Fig. 3 were selected the hoards discovered in Romania combining two or more of the issues minted in Amphipolis, Thasos, Dyrrhachium, Apollonia, in the Roman Republic and the Empire. I excluded from the analysis the one-issue hoards, as well as local coins and imitations. The chart in Fig. 3 points out four peaks alternated by three nadirs. The peaks correspond to phases of mixed hoarding of 2-3 issues, meanwhile the nadirs correspond to the withdrawal of the older issues and the import of new ones. The theoretical model that can be inferred based on this numismatic evidence is synthesized in Fig. 4. It allows the determination of eight relative chronological stages

²⁵ Mirtea 1958; Winkler 1967; Poenaru-Bordea 1974, 232; Chițescu 1981, 20-21; Winkler 1981, 115; Poenaru-Bordea, Cojocărescu 1984, 59-72; Lockyear 1996, 314.

²⁶ Lockyear 1996, 257-258.

²⁷ Winkler 1955, 46; Mitrea 1958, 180-181; Winkler 1967, 133-135; Glodariu 1971, 84; Poenaru-Bordea 1974, 232; Poenaru-Bordea, Stoica 1980, 79-80; Poenaru-Bordea, Chițu 1980, 152.

²⁸ Chițescu 1981; Lockyear 1996, 138-140, tab. 7.1-3; 257: "the most astonishing fact about these hoards is the sheer number of them".

²⁹ Chițescu 1981, 64; cf. Popović 1987, 106; Lockyear 1996, 447.

³⁰ Poenaru-Bordea 1974, 235; Poenaru-Bordea, Cojocărescu 1984, 72; cf. Lockyear 1996, 388, fig. 14.1.

³¹ Mihăilescu-Bîrliba 1990, 105-106; Preda 1998, 319-321.

of the regional monetary circulation. This scheme is useful for setting in relative timeline the emergence of the 'Dacian' jewellery hoards (see § 7).

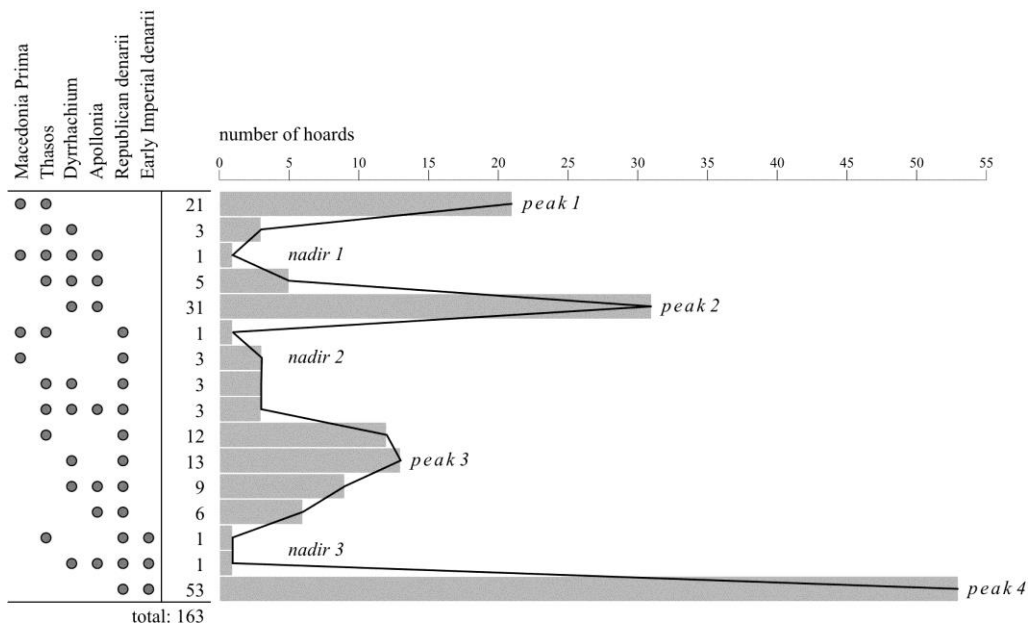


Fig. 3. 1st century BC mixed coin-hoards in Romania.

4. SHORT HISTORICAL FRAMING OF CURRENCY CIRCULATION

The main reason why the ancient states intensified the coin supply was war³². The import of drachms and denarii in Dacia could be well synchronized with the first Roman campaigns in the lower Danube (74 and 72 BC)³³. The similar structure (distribution of coins by issuers) of batches of drachms or denarii allows the understanding of monetary hoards as stipendia³⁴. The Greek cities of Thasos, Dyrhachium and Apollonia Adriatica were Rome's allies and their mints were stimulated by Roman interests. The imperial power of Roman Republic³⁵ was hiding underneath the Hellenistic coat.

³² Callataj 2000, 353-355.

³³ Matei-Popescu 2014, 174-175.

³⁴ Chițescu 1981, 20-21; Poenaru-Bordea, Cojocărescu 1984, 64, n. 62, tab. 1; Conovici 1986, 80; Popović 1987, 107, fig. 27; Lockyear 1997, 94.

³⁵ Poenaru-Bordea, Condrea 1972, 121 (the original in Romanian: „sub haină grecească, se ascunde puterea Romei în expansiune”). Cf. Popović 1987, 97-99.

hoarding stages	Macedonia Prima tetradrachms	Thasos tetradrachms	Dyrrhachium and Apollonia drachms	Republican denarii	Early Imperial denarii	Gallarate jugs	'Dacian' hoards (nr.)
	import & circulation						
1	hoarding	import & circulation					
2	mixed hoarding						
3	withdrawal	hoarding	import & circulation			1	2
4	.....	mixed hoarding					
5	.....	withdrawal	hoarding	import & circulation		1	4
6	...	.....	mixed hoarding			1	
7		.....	withdrawal	hoarding	import & circulation	1	7
8		...	.....	mixed hoarding			2

Fig. 4. Theoretical model of the regional monetary circulation (1st century BC).

Between the import of drachms and denarii in the North-Balkan regions and the import of late Hellenistic ('Mithridatical') prestige goods in the North-Pontic region³⁶ one can recognize an astonishing symmetry: sending gifts or stipendia, both the Kingdom of Pontus and the Roman Republic have endeavored to acquire wide areas on influence in barbaricum (Fig. 2). The rivalry between Rome and Pontus is reflected by the similarity and synchrony of fluctuations in currency issuance: the peaks of mithridatic coins are dated in 89-85 and 75-74 BC, which corresponds to the import in Dacia of tetradrachms of Thasos (after the year 88 BC), drachms of Dyrrhachium and Apollonia and denarii (ca. 75-65 BC)³⁷. The rivalry between the two powers could be pointed out further by the discovery at Grădiștea de Munte, in the very core of distribution area of drachms and denarii of late Lysimachian staters issued in the west-Pontic cities allied to Mithridates 6th Eupator³⁸.

³⁶ Simonenko 2001, 104, fig. 7; Simonenko 2008, 41-42, fig. 37; Marčenko, Limberis 2008, 325.

³⁷ Callataj 2000, 356-358.

³⁸ Iliescu 1972 (first record of a golden stater at Grădiștea de Munte); Makkay 1995 (review of the mediaval discoveries); Oberländer-Târnoveanu 2013, 95 (lost coins from hoard no. II).

The abandonment of the 'Thracian channel', through which circulated the tetradrachms, in favor of the 'Illyrian channel', indicated by the spreading of drachms, could have come as a consequence of the integration of Thrace into the Mithridates alliance system (ca. 88-75 BC). The decline of the imported Republican currency in Dacia in mid-1st century BC could be linked to the changes of the Roman foreign policy after Pompey the Great established peace in the east Mediterranean (65-63 BC). The conflict between Rome and Pontus does not echo only in the field of currency. The dramatic decrease of amphorae production and export to Rhodos and Cnidos was also explained as an effect of the Mithridatic Wars³⁹.

Like early Hellenistic imports of the 4th-3th centuries BC⁴⁰, Rhodian and Cnidian amphorae and Amphipolitan tetradrachms of the 2nd century BC are extremely scarce in Transylvania. Instead, the Thassian, Dyrrhachian and Roman Republican coins imported at the beginning of the 1st century BC were the earliest abundant goods of Mediterranean origin to reach the inner regions of the Carpathian Arch. This large silver coin inflow had a major impact on local non-monetary economies and it led to the restructuring of regional hierarchies of power and cultural configuration⁴¹. The oversupply of silver prompted the development of the precious metal crafting and the increase of depositional practices. It is in this context that the emergence of 'Dacian' hoards and political power-structures must be explained.

5. THE DILEMMA OF COPYING ROMAN COINS

The issue of copies of (certain!) Roman denarii in ancient Dacia was indicated by the dies discovered at Braşov, Grădiştea de Munte, Ludeşti, Poiana and Tilişca⁴². According to pertinent numismatists, a superficial examination of coins would not allow the distinction of copies from their originals⁴³. Some Romanian scholars concluded that copying coins would invalidate the chronological relevance of the numismatic material⁴⁴. It should be noted that copies cannot be issued prior to their originals. Copying coins does not pervert the dialectical validity of principles of the relative chronology and periodization: *terminus a quo, terminus ante quem non, terminus*

³⁹ Grace, Savvatianou-Pétrapoulakou 1970, 320-321; cf. Măndescu 2015, 257-258; Măndescu 2016, 359.

⁴⁰ Teleaga 2008, 1, fig. 1 and 344-351, maps 68-70.

⁴¹ cf. Callataj 1997, 109-116.

⁴² Preda 1973, 347; Chişescu 1981, 316; Lupu 1989, 71-73, fig. 19-21, pl. 15/18; Glodariu *et alii* 1992. Copies of denarii have been issued also outside Dacia: Popović 1987, 114-115.

⁴³ Crawford 1980, 52: „Visual evidence is clearly inadequate (...). In the long run, major programmes of analysis of trace elements and metal structure might provide a definitive answer”.

⁴⁴ Glodariu *et alii* 1992, 63, Rustoiu 1997, 15.

post quem, terminus ad quem. It should also be noted that not all foreign coins have been copied. Amphipolitan and Thassian tetradrachms, Dyrhachian and Apollonian drachms were imitated but not copied. No dies for this issues have been discovered so far. Indeed, due to the specific meticulousity of the approach, detecting copies is difficult but not impossible⁴⁵. Copies have a lower quality of silver than original denarii⁴⁶. Sometimes the technique betrays counterfeiting; some copies were made by casting and not by striking⁴⁷. By copying, the obverse-reverse correspondence was not always maintained⁴⁸. In the monetary hoards, the number of copies is inferior to that of originals⁴⁹. There are no counterfeit coin series or hoards made up of copies only⁵⁰. Most likely, the role of copying was limited and aimed at completing batches of originals: by recycling, older currencies (local issues, tetradrachms, drachms) could be converted into denarii⁵¹. In Dacia, copying denarii started in mid-1st century BC, when Roman coin import declined⁵², and points out the increased processing of precious metals. Probably, the beginning of copying denarii and the emergence of the jewellery hoards are two closely related phenomena.

6. REPUBLICAN BRONZES AND 'DACIAN' HOARDS

For the chronology of the 'Dacian' hoards, the Lupu inventory is of particular importance: it allows the relative synchrony between knot-fibulae and the Gallarate jugs⁵³. Several scholars framed the Gallarate jugs discovered in northern Italy exclusively in LT D1 (*ca.* 125/120 - 70 BC)⁵⁴. Only the jugs from the Ornavasso necropolis were dated by Jorn Graue in a later period (90-50 BC)⁵⁵. The discovery from

⁴⁵ See the consistente debate presented by Lockyear 1996, 401-442.

⁴⁶ Poenaru-Bordea 1974, 230-231, fig. 5; Chițescu 1981, 54-62; Lockyear 1996, 442-443 and 447.

⁴⁷ Stoicovici 1968, 343-345; Winkler 1968, 337; Sulițeanu 1971, 251.

⁴⁸ Poenaru-Bordea, Știrbu 1971, 265.

⁴⁹ Lockyear 1996, 437.

⁵⁰ Crawford 1980, 51; Popović 1987, 115; Mihăilescu-Bîrliba 1990, 95;

⁵¹ Lockyear 1996, 446 (on Stăncuța hoard): "There is no way of telling which objects were being made from which, but two interesting possibilities are that either the tetradrachm and the denarius were being made from the silver bar, or that tetradrachms were being melted down and the alloy used to make copies of denarii".

⁵² Winkler 1981, 114; Poenaru-Bordea, Cojocărescu 1984, 71-72; Lockyear 1996, 444-446.

⁵³ Spânu 2002, 111-115.

⁵⁴ Küthmann 1958, 121; Piana Agostnetti 1972, 274-278; Boube 1991, 26.

⁵⁵ Graue 1974, 162-170, Taf. 55. Martin-Kilcher 1998, 203-205 places the graves with Gallarate jugs from Ornavasso San Bernardo necropolis in the phase 2a / 'Ausstattungsgruppe A' (120/100 - 90/80 BC).

Valeggio sul Mincio attests the use of Gallarate jugs until Augustan time⁵⁶. In Bulgaria and Romania, some Gallarate jugs were found together with coins: lost denarii at Filipovci; Thasian tetradrachms at Țigănești; Dyrhachian and Apollonian drachms at Pescari; Thasian tetradrachms, Dyrhachian and Apollonian drachms, Republican denarii, but also their local imitations at Bobaia⁵⁷. The latest denarius at Bobaia was struck in 79 BC, but the presence of locally imitated coins implies a far later *terminus post quem* for its deposition. Regardless of the framing of the lombardian discoveries, the Gallarate jugs imported in the north-Balkan regions can be dated appropriately around the mid-1st century BC, a framing which does not match any LT D1 phase of the chronological systems in Europe. In fact, the Gallarate jugs are missing in the Central-European *oppida*. The mapping of these jugs⁵⁸ shows two main clustering areas: Italy and the north-Balkan regions. This spreading can be correlated to the structural similarities between hoards with late Republican denarii discovered in Italy and Romania⁵⁹. This coincidence may not be accidental: most probably, the Gallarate jugs and certain batches of denarii have been imported simultaneously in southeastern Europe ca. 70 BC (Fig. 4).

The Eggers 20 situlae from Lombardy and Bavaria have been framed in the LT D1 period, and so was dated also the grave 92 from the Belgrad-Karaburma necropolis⁶⁰. The discoveries from Bulgaria and Romania should to be framed in the same way? It must be stated that the situla from Belgrad-grave 92 belongs to a late Republican bronze vessel service. No such vessel sets were discovered in Bulgaria and Romania, but only isolated bronzes taken out from spoiled services. This circumstance could reflect a slightly longer period of distribution. The chronology of the tumulus no. 2 from Cugir is still shrouded in doubts⁶¹. The Bohot hoard contains an Eggers 20

⁵⁶ Bolla 1994, 23; Bolla, Castoldi 2016, 132 and 136-137, 152, nr. XXII/2 (“post 10 a.C. circa”).

⁵⁷ Paunov, Prokopov 2002, 24-25; Raev 1977, 637, nr. 26, pl. 27/4; Beldiman 1988, 76-77 (repertoire of Gallarate jugs in Romania); for Bobaia coin-batch: Chirilă, Iaroslavschi 1992. According to Lockyear 1996, 188, “the Bobaia hoard (...) is the earliest hoard from Romania with a significant number of *denarii*”. Thus, the correlation between Gallarate jugs and the main import of denarii in the years 75-65 BC is highly plausible.

⁵⁸ Boube 1991, 32, fig. 9; Spânu 2002, 114, fig. 24.

⁵⁹ Lockyear 1996, 192, 257-258, 389, 443-444.

⁶⁰ Božič 2008, 146.

⁶¹ Discovered in 1979, the inventory of the tumulus 2 at Cugir was never exhaustively published, despite repeated but incomplete attempts: Crișan 1980 published a brief report without illustrations; Roman *et alii* 1982, 15, fig. 9 and Rustoiu 1996, 33, fig. 1/5 show a golden plate (no technical data provided); Werner 1988, 87, nr. 270A, pl. 39 records one of the horse bits; Rustoiu 2009 presents the situla; Teleagă *et alii* 2014 illustrate a sword, publish new contextual data, and an unconvincing ¹⁴C analysis (*cf.* Teleagă 2016, 296, n. 3); Sirbu,

type situla and nine silver *mastós*-type bowls displaying a considerable supply of precious metal reflected by many jewellery hoards. In fact, bowls of *mastós* type are associated with a Gallarate jug and two knot-fibulae at Lupu, with Thasian tetradrachms at București-Herăstrău⁶², but also, in the Sâncrăieni hoard, with a Dyrhachian drachm and an imported silver kantharos with analogies in the late Republican hoards from Arcisate, Giubiasco or Palmi⁶³. The burial of the Sâncrăieni hoard was placed at the turn of the Millennium⁶⁴. Thus, the *mastós*-bowls from northern Bulgaria and Romania and, by default, the Eggers 20 type situla from Bohot, can not be placed with definite exclusivity in the frames of central-european LT D1 phase (130-70 BC). Probably, the Bohot situla belongs to the same chronological level as the Gallarate jug from Lupu, which corresponds to the first phase of the 'Dacian' hoards.

7. CHRONOLOGY OF THE HOARDS AND ITS CONSEQUENCES

The analysis of occurrences of representative types of silver items allows the distinction of two groups of hoards: (1) hoards dominated by knot-fibulae of middle LT scheme (Fig. 5/A) and (2) hoards dominated by shield- and spoon-fibulae (Fig. 5/F-G), both of late LT scheme. Some knot-fibulae are associated with different shapes of rod-bow fibule of late LT scheme, but they are dissociated without exception from the shield- and spoon-fibulae, and also from the spiral bracelets with ending plates (Fig. 5/H). The difference between schemes already suggests a relative chronological sequence of the two groups. Some hoards of the first group (the 'knot-fibulae hoards') contain Thasian tetradrachms and Dyrhachium and Apollonia drachms. Some inventories of the second group (the 'shield-/spoon-fibulae hoards') contain batches of Republican and early Augustan denarii⁶⁵. Thus, the succession of the two groups has not only a relative chronological relevance but also an absolute one. The jewellery

Borangic 2016, 75-76, fig. 16/1 record one 'sica' type knife. A silver fibula (of middle LT scheme according to Rustoiu 1997, 97, liste 2, nr. 7 or of late LT scheme according to Teleagă 2016, 296), a helmet, some shield fragments, two horse bits, metal items from a chariot etc are still waiting for an adequate publishing. The chaotic capitalization of this spectacular inventory is inexplicable. Thus, any debate on its chronology is futile for now.

⁶² A situla of uncertain type have been also recorded at București-Herăstrău: Popescu 1948, 37-38, no. 12-13, fig. 2/4-5, 40-41, figs. 6/3, 7/7.

⁶³ Küthmann 1958, 120, pl. 11; Gabelmann 1982, 24-26, fig. 14-17; Guzzo 1980, 196, nr. 4-5, 200, fig. 7, 202, fig. 9. Cf. Piana Agostinetti, Priuli 1985.

⁶⁴ Popescu 1958, 194 accepted by Künzl 2002, 334, 342-343; cf. Rieckhoff 1998, 517. One can distinguish several phases of manufacturing and hoarding of the Sâncrăieni inventory (Spânu 2012c, 20).

⁶⁵ Spânu 2002, 96-100, fig. 19; Spânu 2012a, 142-144, fig. 48.

hoards of the first group can be synchronized to the stages 3-6 of the regional monetary circulation; the second group of hoards corresponds to the stages 7-8 (Fig. 4). There are no association between local silver items and Macedonia Prima tetradrachms (stages 1-2), barbarian coins or post-Augustan denarii. More precisely, local silver jewellery manufacturing probably began during the latest phase of Thasian coins hoarding and continued until the arrival of early Augustan denarii. Thus, the first phase of the jewellery hoards may be framed between ca. 75-25 BC and the second phase between ca. 25 BC-25 AD.

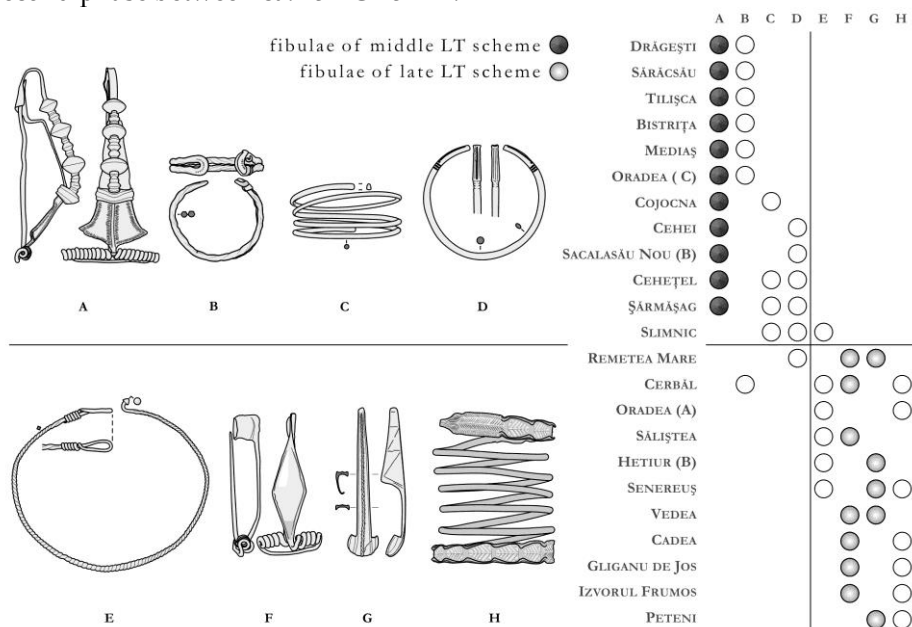


Fig. 5. Representative silver jewellery types and their occurrences in 'Dacian' hoards.

The question may be asked, to what extent can be related this chronological scheme to the schemes of the La Tène chronologies? The earliest hoards cannot be synchronized to the very beginnings of the late LT period, but to a subsequent stage, more precisely, during or after the highest inflow of drachms and denarii around ca. 75-65 BC⁶⁶. Also, post-Augustan imports are absent in the hoards. In other words, it can be distinguished a late-LT-stage (a time 'before the hoards'), which would correspond to LT D1, and a post-LT-stage (a time 'after the hoards'), which would correspond to Eggers B2a period. Thus, the 'time of the hoards' may be equated to the LT D2 period in Romania. Consequently, the early hoards correspond to LT D2a phase, and the later correspond to LT D2b / Augustan- / Eggers B1 period (Fig. 6).

⁶⁶ Cf. Spânu 2012a, 145; Teleaga 2016, 309 accepts a similar limit between LT D1 and LT D2a phases.

Central Europe	'Dacian' late LT		PL culture	PPK group
	HOARDS	SETTLEMENTS		
LT C2	a	1	Babeş I Iarmulschi II	?
	b			
LT D1	a	CVV	Babeş II Iarmulschi III	
	b			
LT D2	a	phase 1	pre-oppidanic stage	Babeş III Iarmulschi IV
	b	phase 2	oppidanic stage GMP	?
Eggers B2	'after' the hoards	post-LT phase		

Fig. 6. Chronological scheme of late La Tène period in Romania.

This chronological scheme has an important significance for the understanding of the regional dynamics of fibulae typology. The transition from the first to the second phase of hoards corresponds to the dismissal of the fibulae of middle LT scheme (still used in LT D2a phase) and the general proliferation of the fibulae of late LT scheme (in the LT D2b phase). In this way, the periodization of the hoards can be related to the diffuse inventories of the local settlements, but especially to the relative chronologies of other cultures, even if their spectrum of fibulae consists of very different types.

8. PHASES BEFORE THE HOARDS

Stamped Rhodian amphorae of Grace groups III-VI⁶⁷ are the main chronological markers for the period between the beginning of the 2nd and the beginning of the 1st century BC. Their import had a limited scale both in quantitative⁶⁸ and spatial terms and declined drastically around ca. 110-80 BC⁶⁹. Stamped Rhodian amphorae have been discovered in southern Romania, but did not enter in Transylvania⁷⁰. The best studied

⁶⁷ Grace 1985; Finkielsztein 2001; Lund 2011a.

⁶⁸ At Cetățeni, Măndescu 2016, 373 has recorded 80 amphorae for the period 189-86 BC (in average less than one amphora per year); a similar statistic can be established for the settlement at *Vadu Vacilor*: 33 Rhodian amphorae have been dated between 179/177 and 134/133 BC (Irimia *et alii* 2011, 125).

⁶⁹ Lund 2011b, 288, fig. 13.3.

⁷⁰ Măndescu 2015, 256, fig. 1/left and 258; Măndescu 2016, 373.

amphora batches are those from Cetățeni and Satu Nou – only on the *Vadu Vacilor* site⁷¹. Both settlements can be considered iconic for the phases preceding the jewellery hoards that could be called the “Cetățeni - Vadu Vacilor” period/group (further: CVV). In principle, the CVV period could be divided in two phases: the first one roughly corresponding to the LT C2 phase, prior to the import of Amphipolitan tetradrahms, and the second coincident to this import roughly corresponding to the LT D1 phase (Fig. 6). Due to the poor documentary evidence, this chronological distinction can only be accepted as a working hypothesis for now⁷².

The study of fibulae discovered in CVV settlements does not allow a clear distinction between LT C2-types and LT D1-types⁷³. In both phases fit some iron fibulae of middle LT scheme belonging to a diffuse family of shapes related to Kostrzewski A-B types and Babeș II.3.a-b types (Fig. 8)⁷⁴. Their presence in the southern Romanian sites (Divici, Cetățeni, Conțești, Poiana, Tilișca etc) is scarce and their archaeological contexts, often unclear, are unreliable for a refined periodization⁷⁵. Some similar fibulae have been found in the latest graves of the ‘Celtic’ Transylvanian horizon⁷⁶. Thus, these iron fibulae are even unsuitable for clear cultural distinctions.

At the current stage of research, no certain fibulae type of late LT scheme can be correlated with the later stage of CVV phase (LT D1). Fibulae types specific only for the LT D1 phase in central Europe are extremely rare in Transylvania and southern Romania. Two Beltz J type fibulae in the settlement at Hunedoara (Fig. 8/13) and Radovanu⁷⁷, an ‘Oberleiserberg’ type fibula from the Zimnicea-settlement (Fig. 8/14)⁷⁸ and a Kostrzewski K type fibula in a PPK-grave at Bălănești (Fig. 8/15) are exceptional cases⁷⁹. Some Nauheim type fibulae are reported in Romania⁸⁰ but, in the absence of

⁷¹ Măndescu 2006; Măndescu 2016. The human presence at Cetățeni would continue after the end of the import of Rhodian stamped amphorae until the post-LT phase of the GMP culture (Măndescu 2006, 71-76). Rhodian stamped amphorae were not reported on *Valea lui Voicu* site at Satu Nou; the settlement on the *Vadul Vacilor* site at Satu Nou ceases its existence at the beginning of the 1st century BC: Irimia *et alii* 2011, 94-106, 117-127.

⁷² For example, the earliest dwelling of the late LT settlement in Popești (Preda, Palincaș 2005, 78) corresponds probably to the second half of the CVV period (roughly LT D1). However, the totality of dating indicators from this settlement have not yet been published.

⁷³ Cf. Rustoiu 1997; Măndescu 2000; Zirra 2017.

⁷⁴ Măndescu 2000, 60-64 (types II.5, II.11, II.12); Zirra 2017, 53-55, 60, 68 (types 30, 36, 41).

⁷⁵ E.g. Zirra 2017, 60 (a Kostrzewski A type fibula at Tilișca). No fibulae are reported at *Vadu Vacilor*.

⁷⁶ E.g. the Kostrzewski B type fibula at Orosfaia: Vaida 2000, 135-136; cf. Zirra 2017, 55.

⁷⁷ Sîrbu *et alii* 2007, 154, 232, fig. 18/9 and 274, fig. 60/11; Șerbănescu 1985, 26, fig. 4/2.

⁷⁸ Spânu 2006, 302, fig. 4/2 (undocumented context); for dating: Karwowski, Militký 2011, 135.

⁷⁹ Spânu 2018, 241-242, 251, pl. II/6.

⁸⁰ Rustoiu 1997, 46, 203, fig. 47/4-8 and Măndescu 2006, 50, pl. 22/1.

local edifying contextual dating, it cannot be said whether they had been imported in the LT D1 phase or in a later stage⁸¹. The period interposed between the end of ‘Celtic’ funerary horizon (beginning of LT C2 phase)⁸² and the emergence of the ‘Dacian’ hoards (LT D2) is characteristic for Transylvania and Wallachia by a surprisingly modest cultural expressiveness⁸³.

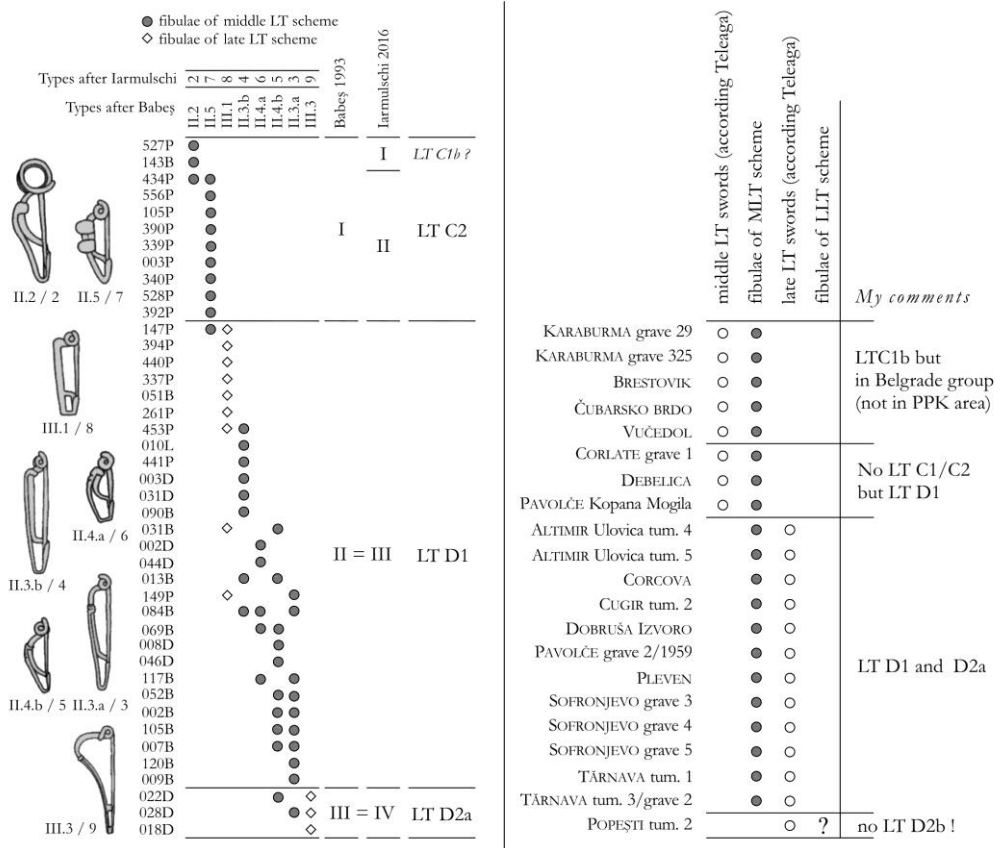


Fig. 7. Left: fibulae schemes and PL chronology (data and fibulae drawings after Iarmulschi 2016, 485-486). Right: critical summarizing of Teleaga's analysis (Teleaga 2016, 296-299, 311, tab. 2) on PPK weapon graves.

⁸¹ So Rustoiu 1997, 46 based on Feugère's rough conclusions (Feugère 1985, 225). For the dating in LT D1, see Miron 1991, 158-160, Maute 1994, 426.

⁸² Rustoiu 2016b, 242-243, tab. 2; Zirra 2017, 145.

⁸³ Pupeză's attempt to enlighten the 'dark age' (roughly the 2nd c. BC) of pre-Roman Dacia (Pupeză 2012) is shadowed by the lack of critical evaluation of the chronological markers.

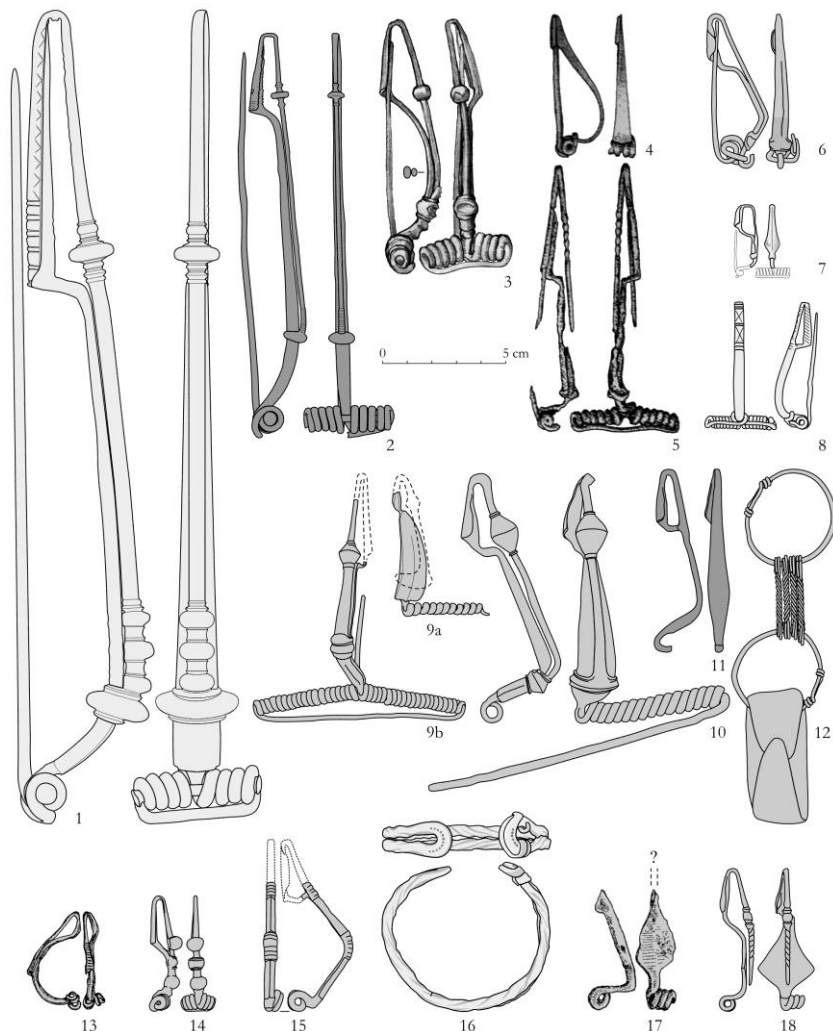


Fig. 8. Fibulae and adornments of the phases LTD1 and LTD2a. 1. unknown site, Transylvania, silver (after original); 2. Corlate, cremation weapon-grave, iron (after original); 3. Bălănești, cremation weapon-grave, iron (after original); 4-5. Dobrești, hut-inventory, iron (Gherghe 1999, 80, fig. 1/2-3); 6. Debelica, cremation weapon-grave, bronze? (Popović, Sladić 1997, 106, fig. 6/6); 7-8. Mediaș, hoard, silver (after original); 9a. Pavolce 'Kopana mogila', cremation weapon-grave, bronze (Nikolov 1965, 181, fig. 21/g); 9b. Pavolce, uncertain tumulus, bronze (Nikolov 1965, 182, fig. 22/v); 10-12. Altimir-Zărneni Hrăni, cremation grave, bronze (after sketches by Mircea Babeș); 13. Hunedoara, layer, bronze (Sirbu et alii 2007, 274, fig. 60/11); 14. Zimnicea, settlement, bronze (after original); 15. Bălănești, cremation weapon-grave, iron (after original); 16. Dubova, cremation weapon-grave, silver (after original); 17. Popești, tumulus no. 2, iron, (Vulpe 1976, 197, fig. 5/14); 18. Poiana, settlement, bronze (Vulpe, Teodor 2003, 572, fig. 93/9).

Ceramic shapes, other than amphorae, have a low chronological meaning. An example is provided by the hut-inventory no. 1 from Schela Cladovei⁸⁴. It consists of a handle of a Rhodian amphora with the stamp „Epi Kal[likratida]/Agrian[ou]”, dated ca. 176-175 BC⁸⁵, fragments of a (graphite?) situla with vertical strips, a hand-made truncated mug, a hand-made cylindrical pot with knobs and an iron razor with curved handle. The archaeological context was poorly documented and the body of the amphora is missing: so, it is possible that it comes from a secondary fill. Thus, a precise dating of this context is impossible, and its framing in the CVV period could be accepted only (!) as working hypothesis. It is also unclear if the so-called Ciolăneștii din Deal-type ceramics (an association of hand-made coarse pots and fine wheel-made pottery found together in a well-shaft)⁸⁶ could be dated back to the CVV period (LT C2, LT D1 or later ?). The absence of relevant chronological markers, such coins or amphorae, did not allow an adequate framing of the Ciolăneștii din Deal inventory.

Local imitations after Megarian/Delian bowls⁸⁷ could be dated hypothetically throughout the 2nd century BC, but their production can be framed with more certainty in a later phase. It is not clear whether the absence of local imitations of ‘Megarian’ bowls in the *Vadu Vacilor* site⁸⁸ has a chronological significance. The iconography of a local bowl found at Zimnicea can be compared to that of the phalerae in the Lupuhoard⁸⁹. Some cups from Sâncrăieni-hoard can also be interpreted as silver replicas of the ‘Megarian’ bowls. Such analogies allow the framing of the local bowls in the LT D2 phase. The impress of a barbarian imitation after a royal Macedonian coin in the mould of a relief ornamented bowl from Snagov⁹⁰ did not reveal a precise dating. Although highly plausible, the framing of local imitation of Megarian/Delian bowls already in CVV period can not be certified for now.

In the current state of the research, CVV phase specific findings have not yet been identified in Transylvania. Thus, the CVV cultural aspect seems to be specific exclusively to the south of Romania.

9. LATE LA TÈNE INTERCULTURAL CORRESPONDENCES IN ROMANIA

The dynamics of amphorae import and the change of the fibulae schemes allow some intercultural correlations. The dilemma of the beginnings of the PL culture, either in

⁸⁴ Boroneanț, Davidescu 1968, 254-257, fig. 1-8; cf. Moscalu 1983, 195.

⁸⁵ Lund 2011a, 278.

⁸⁶ Petrescu-Dîmbovița, Sanie 1972.

⁸⁷ Casan-Franga 1965; Vulpe, Gheorghită 1976; Irimia 2006.

⁸⁸ Irimia *et alii* 2011, 143-144.

⁸⁹ Spânu 2006, 315-316.

⁹⁰ Rosetti 1935, 19.

LT C2 phase (according to Babeş) or in the LT C1b phase (according to Iarmulschi), is outside the framework of this paper⁹¹. Rhodian amphorae of Grace' groups III-IV can be correlated to the beginnings of both PL culture and the CVV group⁹². In fact, the first two phases of the PL culture (according to Babeş' chronology) can be synchronized to the entire CVV group. Thus, without being confirmed, the hypothesis of two-phases division of the CVV group (LT C2 and LT D1) increases its plausibility (Fig. 6).

During the two later phases of the PL culture (Babeş' 2nd and 3rd phases = Iarmulschi' 3rd and 4th phases), middle LT fibulae types and late LT fibulae types have been equally used (Fig. 7/left). A phase of the PL culture defined exclusively by fibulae types of late LT scheme (like the second phase of the 'Dacian' hoards) could not be determined. Thus, the later phase of the PL culture can be relatively synchronized only with the first phase of the 'Dacian' hoards, respectively with the LT D2a phase⁹³. At the current stage of research, no PL discovery can be framed in a later period (LT D2b). Most likely, the definitive abandonment of the middle LT scheme fibulae coincided with the end of the PL culture.

The dynamics of the PPK group has a major importance for the understanding of the beginnings of the late La Tène period in Romania. The earliest late La Tène cultural links between inner Transylvania and Lower Danube could be related to the emergence of the PPK group⁹⁴. Teleaga's study on weapon-graves⁹⁵ highlights the particular chronological relevance of swords and fibulae combinations. Summarizing his assertions critically, three successive stages could be distinguished: (1) combinations of middle LT swords and middle LT scheme fibulae would correspond to the LT C2 phase; (2) combinations of late LT swords and middle LT scheme fibulae would correspond to the LT D1 phase; (3) combinations of late LT swords and late LT

⁹¹ At the present state of research, the statistical support of a LT C1b phase of the PL graves (Iarmulschi 2016, 483-484 and 486, fig. 13) is precarious: only three graves of the PL culture contain Babeş II.2 type fibulae. In grave 434 at Poieneşti a Babeş II.2 type fibula occurs alongside a Babeş II.5 type fibula, which is the main marker of the 1st phase (LT C2) of the PL culture. In this case, the later type should be understood as *terminus ante quem non*. Thus, the alleged Iarmulschi's LT C1b phase consists only on two fibulae-graves! Regardless any artificial framing, the Babeş II.2 type reveals a possible relative synchronicity between the latest 'Celtic' graves in Transylvania and early graves of the PL culture (*cf.* Măndescu 2000, 61, n. 111). According to the occurrences in grave 434 at Poieneşti, this synchronicity could be placed in LT C2 phase, not earlier. See Conovici 1992 and Ferencz 2011 for contrary opinions, as well as the dispute Conovici 1996 vs. Harhoiu 1996.

⁹² Babeş 1993, 72-75; Iarmulschi 2012; Irimia *et alii* 2011, 94-106, 117-127; Măndescu 2016.

⁹³ *Cf.* Babeş 1993, 149.

⁹⁴ Rustoiu 1996, 149; Sîrbu, Rustoiu 1999, 86.

⁹⁵ Teleaga 2016, 296-299, 311, tab. 2.

scheme fibulae would correspond to LT D2 phase (Fig. 7/right). This sequence requires two main adjustments. On the one hand, the first combinations-type is specific to either graves situated outside the PPK area (in Serbia and Eastern Croatia), or to inventories with fibulae-types of the LT D1 phase (see below). Thus, there are no PPK sword-graves to be dated in the LT C2 phase for now. In other words, even if the origin of the PPK rituals should be sought in the funeral practices of the Belgrade group, the emergence of the PPK group already in LT C2 phase still awaits its demonstration. On the other hand, the third combinations-type would be attested only in the tumulus no. 2 from Popești⁹⁶. The iron fibula found here (Fig. 8/17) is preserved in fragmentary shape: its foot is missing. Thus, there is no certainty whether this item was originally a shield-fibula of late LT scheme⁹⁷ (e.g. Fig. 5/F), or an Orlea-Maglavit-type fibula of early LT scheme (e.g. Fig. 8/18)⁹⁸. Viewed from the profile, its strongly bent bow is untypical for the shield-fibulae, but it can be recognized in the case of the well preserved Orlea-Maglavit-type fibulae. If so, no PPK weapon-grave would be dated in the period of the shield-fibulae, which is actually the LT D2b phase.

Most of the fibulae from the PPK graves have analogies in LT D1 and LT D2a contexts, sometimes in association with late LT scheme fibulae that excludes any ranking into middle LT. For example, the fibulae from Corlate and Bălănești (Fig. 8/2-3)⁹⁹ illustrate elaborate variants of the Kostrzewski B/ Babeș II.3 type, specific for the inventories of the 2nd phase (LT D1) of the PL culture (Fig. 7/left)¹⁰⁰. The iron fibula from Corlate (Fig. 8/2) has ornamental analogies close to the gigantic silver fibula from Transylvania (Fig. 8/1)¹⁰¹. The manufacturing of the later can be explained only in the context of the local abundance of precious metal specific to the LT D2a phase. Thus, dating the Corlate fibula in LT C2 phase would be most probably a wrong choice. The Gura-Padinei-type (attested e.g. in the graves nos. 4 and 5 at Sofronjevo) should also be framed in LT D1 because of the association of a similar item (Fig. 8/5) with a late LT

⁹⁶ Teleaga 2016, 298 and 311, tab. 2 (row 4) *apud* Vulpe 1976, 197-198, fig. 5/14.

⁹⁷ So Vulpe 1976, 214, and after him: Rustoiu 1997, 44, Teleaga 2016, 298, Zirra 2017, 69-70.

⁹⁸ Mircea Babeș' remark, August 23, 2001. The chronology the Orlea-Maglavit-type is shrouded in doubt, but most of the scholars point out a ranking in the LT D1 phase (end 2nd – beginning 1st c. BC); Popović 1992, 322, Rustoiu 1997, 38; Măndescu 2004, 8, 13; Zirra 2017, 62, n. 225.

⁹⁹ Nicolăescu Ploșșor 1948, 20-22, pl. II/4. Spânu 2018, 240, III/9. The Bălănești-fibula was found alongside a bracelet with analogies in the 2nd phase of the PL culture (LT D1).

¹⁰⁰ Babeș 1993, 92-93. According to Sîrbu, Rustoiu 1999, 82, “de telles pièces, appartenant à la variante B-Kostrzewski sont spécifiques au La Tène C2 et au début de la sous-phase D1, pouvant se dater dans la seconde moitié du II^e siècle av. J. Ch. et la première partie du siècle suivant”. Actually, the period between “the second half of the 2nd century BC and the first part of the next century” corresponds roughly to the LT D1 phase.

¹⁰¹ Spânu 2012a, 251, no. 154, pl. 174. This gigantic fibula is 32,9 cm long and weights 442 g.

scheme fibula in a hut at Dobrești (Fig. 8/4)¹⁰². The elongated middle LT scheme fibulae with spherical ornaments on the foot, like those from Sofronjevo grave 3, Corlate and Ostrovul Șimian hut no. 6¹⁰³ have close analogies in the latest graves from the Dobova necropolis (e.g. grave 19) belonging to the Mokronog group, and framed by Mitja Guštin in LT D1 phase¹⁰⁴. The fibula with spear-shaped foot (so-called Zarubinci- or 'Lanzenfibel'-type) from Debelica, grave no. 7 (Fig. 8/6) has no analogy before the end of the 2nd century BC¹⁰⁵. A similar but smaller fibula (Fig. 8/7) is associated with a late LT scheme fibula with frame catch-plate (Fig. 8/8) from the Mediaș-hoard¹⁰⁶. The fibulae with large spring from Pavolce (Fig. 8/9a-b) have an analogy in a grave at Altimir 'Zărneni Hrăni' (Fig. 9/10), where another late LT scheme fibula with frame catch-plate was found (Fig. 9/11)¹⁰⁷. The Kostrzevski K type fibula from Bălănești (Fig. 8/15), imported from central-northern Europe, could be framed either in the phase LT D1 or a little later¹⁰⁸. At the present state of research, this is the only certain late LT scheme fibula discovered in a PPK-type weapon-grave. The silver bracelet from the cremation weapon-grave at Dubova may be ranked into the early phase of the 'Dacian' hoards (LT D2a)¹⁰⁹ (to compare Fig. 8/16 with Fig. 5/B). Other similar examples could be further exposed. A plenary debate of the chronology of the PPK graves is an imperative desideratum of current research.

Regardless the typo-chronology of the La Tène swords in Romania, it can be considered that most of PPK inventories have been organized during that periods of late La Tène when fibulae of middle LT scheme have been still used intensively (LT D1 and LT D2a)¹¹⁰. Probably, the PPK funerary tradition ended before the general imposition of the fibulae types of late LT scheme in the last stage of late La Tène (LT D2b).

¹⁰² Nikolov 1981, 36-39, figs. 5a, 6b; Gherghe 1999, 80-81, fig. 1/2-3; cf. Rustoiu 1997, 35.

¹⁰³ Nikolov 1981, 36, pogr. 3, no. 2, fig. 4b (cf. Teleaga 2016, 299); Popilian 1999, 60, fig. 8/9. Another middle LT scheme fibula without any foot ornamentation but with a large spring is associated with a late LT scheme fibula with frame catch-plate in hut no. 7 at Ostrovul Șimian (Popilian 1999, 61, fig. 9/9-11).

¹⁰⁴ Guštin 2011, 126, fig. 7.

¹⁰⁵ Kasparova 1984, 115; Popović 1994, 66-67; Hellström 2018, 38-39.

¹⁰⁶ Spânu 2012a, 229, no. 69/'Lotul Viena' - nos. 13, 15, pl. 79/1, 5.

¹⁰⁷ Nikolov 1972, 64-66, fig. 12. A belt-chain similar to that of Altimir was found along with a knot-fibula in the Clipicești hoard (Spânu 2012a, 220-221, nr. 30, pls. 28/6 and 29). Thus, the Pavolce and Altimir inventories can be synchronized with the first phase of 'Dacian' hoards (LT D2a).

¹⁰⁸ Spânu 2018, 241-242 with literature.

¹⁰⁹ Spânu 2004, 92-98.

¹¹⁰ It should be elucidated if the currently unpublished PPK inventories discovered recently at Desa, Dolj county (briefly announced by E. Teleaga, F. Ridiche, M. Constantinescu, A. Bălășescu, V. Apostol, L. Ionescu, *Necropolele Latène de la Desa. Rezultate intermediare*, report

	MLT scheme	LLT scheme	Roman fibulae	satisfactory study or monograph
TĂȘAD	2			
PIETROASELE	1	11		<input checked="" type="checkbox"/>
SLIMNIC	1	1		
TILIȘCA	1	7		<input checked="" type="checkbox"/>
CRAIVA	1	22		<input checked="" type="checkbox"/>
BĂZDÂNA		1		
AUGUSTIN		13		<input checked="" type="checkbox"/>
CĂTELU NOU		4		
MOIGRAD		2		
RADOVANU		2		
TINOSU		3		
PECICA		1		<input checked="" type="checkbox"/>
CĂPĂLNA		7		<input checked="" type="checkbox"/>
POPEȘTI	4	131	3	<input checked="" type="checkbox"/>
SIGHIȘOARA	4	14	4	<input checked="" type="checkbox"/>
ZIMNICEA	2	3	1	<input checked="" type="checkbox"/>
CĂRLOMĂNEȘTI	1	4	3	
CETĂȚENI	4	4	4	<input checked="" type="checkbox"/>
DIVICI	1	1	5	
GRĂDIȘTEA (BR)		9	2	<input checked="" type="checkbox"/>
SPRÂNCENATA		6	3	<input checked="" type="checkbox"/>
BRAD		22	17	<input checked="" type="checkbox"/>
RĂCĂTĂU		47	36	<input checked="" type="checkbox"/>
OCNIȚA	1	18	47	<input checked="" type="checkbox"/>
POIANA	3	64	104	<input checked="" type="checkbox"/>

Fig. 9. Fibulae schemes in the settlements of the GMP group (preliminary statistics).

10. DYNAMICS OF SETTLEMENTS, EMERGENCE OF HILL-FORTS

Both the chronology of the 'Dacian' hoards, and the periodization of PL and PPK groups reflect the long use of fibulae types of middle LT scheme until the phase LT D2a. So, the definitive imposition of the late LT scheme took place only in LT D2b. This remark is of particular importance for understanding the dynamics of GMP settlements. The most numerous batches of fibulae published in a satisfactory way come from the Popești and Poiana settlements. Both cases require a particular attention.

The spectrum of the 140 fibulae with definite typology from Popești¹¹¹ is not distributed evenly throughout the period of the site's dwelling (mid-2nd century BC -

presented in Bucharest, March 29, 2019) will change or not this framing. Cf. Teleaga 2016, 299 and 311, tab. 2 (inconclusive 14C data). The ¹⁴C data published by Gherghe *et alii* 2010 are also unreliable because the fibulae and the analyzed bones come from secondary fills.

¹¹¹ See Zirra 2017, 274-279 for La Tène fibulae and Rustoiu 1997, 47-48, 203, fig. 47/11 și 205, fig. 49/2; 114, liste 23, nr. 3; 115, liste 24, nr. 4; 110, liste 15, nr. 3 for early Roman fibulae (with previous literature).

first decade AD)¹¹². The ratio between fibulae of middle LT scheme and fibulae of late LT scheme is strongly disproportionate: 4 to 132. The earliest indicators are two Kostrzewski B type fibulae (specific to the phase 2 of the PL culture which corresponds to LT D1 phase)¹¹³, two ‘Schüsselfibeln’ (dated in western and central Europe from the LT D1b phase until the Augustan period)¹¹⁴, and two knot fibulae (LT D2a). Spoon-fibulae and few early Roman fibulae are the latest chronological markers of the Iron Age dwelling at Popești. The most frequent types, all of late LT scheme (fibulae with frame catch-plate/ Rustoiu type 6/ Zirra type 49, rod-bow fibulae/ Rustoiu types 7-8/ Zirra type 46a-g and Almgren 15 type fibulae/ Rustoiu type 9/ Zirra type 51) could not be dated by Romanian scholars before the middle of the 1st century BC¹¹⁵. Practically, for the first century of the settlement’s life (ca. 150-50 BC), the number of fibulae is extremely limited: only 6 exemplars could be dated with certainty an exclusively in LT D1 and LT D2a! Most likely, the human presence in the settlement at Popești has considerably intensified only after the disappearance of the middle LT scheme of fibulae and during the imposition of the late LT scheme fibulae.

The case of Poiana is even more striking. Out of the 171 fibulae discovered with certainty (!) on the *Cetățuia* site¹¹⁶, only three illustrate the middle LT scheme, but belong to types specific to the middle La Tène period. In contrast, 64 fibulae of late LT scheme were documented, but their chronological framing (LT D1 or LT D2 ?) is uncertain. Fibulae types specific exclusively to LT D1 and LT D2a phase (like the Kostrzewski B type or the knot-fibulae) are simply missing. Instead, the number of the early Imperial fibulae is even higher (104 items) and reflects the progressive intensification of activities at Poiana during the LT D2b phase and the entire post-LT phase.

As a matter of fact, the cases of Popești and Poiana can be considered representative. The extreme rarity of middle LT scheme fibulae characterizes most of the inventories of the *oppida* in pre-Roman Dacia (Fig. 9). The existence of these settlements during the earliest phases of late LT cannot be denied, but their development has reached an ‘oppidan’ complexity only in a later phase. It can be

¹¹² Preda, Palincaș 2005, 77-78.

¹¹³ Babeș 1993, 92-93.

¹¹⁴ Demetz 1999, 70-71, 192; Lorenz, Gerdson 2004, 128; Rieckhoff 2008, 6; Piana Agostinetti, Knobloch 2010, 14-15 (horizon 4, *terminus post quem*: 86 BC); cf. D. Božič, *Das Ende der boischen Oppida im relativen und absoluten Sinne*, powerpoint presentation uploaded on Academia.edu, 19.11.2013.

¹¹⁵ Rustoiu 1997, 39-42; cf. Zirra 2017, 167 (remarks lacking statistical support).

¹¹⁶ Vulpe, Teodor 2003, 206-230, nr. 1-376 (see only the fibulae discovered with certainty on the “Cetățuia” site); Vulpe, Vulpe 1933, 326, nr. 13, fig. 106/22; Vulpe *et alii* 1951, 206, fig. 24/3, 4, 9; Vulpe *et alii* 1952, 206, fig. 25/1, 5; Vulpe 1957, 150, fig. 5/3, 6; Spânu 2012a, 235, nr. 89-A-40, pl. 96/6; Spânu 2019).

concluded that the transition from a 'pre-oppidan' stage of development to a truly 'oppidan' one has been running concurrently to the generalization of the late LT scheme of fibulae. From the perspective of the hoards chronology, this process corresponds to the LT D2b phase.

In 'Dacian' hill-forts and (hill-) sanctuaries, fibulae of middle LT scheme are absent, and the few coins discovered there cannot be related satisfactorily to the moment of their foundation¹¹⁷. Thus, these monuments could not be dated in LT D1 or LT D2a phases. Few spoon-fibulae from the hill-forts at Augustin, Căpâlna, Craiva, Costești, Lunca and Grădiștea de Munte advocate for a framing in the LT D2b phase. An Almgren 82 type fibula and a tutulus-fibula at Grădiștea de Munte, a disc-fibula with hinged at Căpâlna, Almgren 82 and Almgren 236 type fibulae at Târcov etc are markers of the post-LT phase¹¹⁸. Probably, these hill-forts were used until the Roman conquest.

Actually, the LT D2b phase represents the most effervescent stage of the GMP culture: the building of hill-forts and sanctuaries of stonemasonry could be synchronized with the most magnificent depositions of massive gold and silver items (e.g. the Grădiștea de Munte and Sâncrăieni hoards). From the perspective of this chronological ranking, the interpretation of the golden bracelets from Grădiștea de Munte as foundation offerings for the monuments erected here could be fully justified¹¹⁹. The use of shaped stone by erecting 'Dacian' hill-forts could represent a distant echo of the revival of monumentality in the circum-mediterranean architecture during the era of Augustus¹²⁰.

11. THE PHASE AFTER THE HOARDS (post-LT phase)

In post LT phase of the GMP culture, some settlements have been abandoned (e.g. Popești, Sighișoara-Wietenberg, Pecica), but other (e.g. Răcățau, Brad, Poiana, Ocnița, Moigrad) continued their function as large regional centers (Fig. 9). With the exception of few tumuli from Poiana and some infant inhumation-graves at Hunedoara, the funerary practices are inexpressive¹²¹. Depositional practices cease. The local ritual behaviour in the decades preceding the Roman conquest of Dacia is extremely modest. Already in LT D2b phase, the earliest Roman fibulae (e.g. Alesia type, Almgren type 2, Feugère types 11, 12, and perhaps 18b1 types; Fig. 10/1-4 and 9)¹²² were imported into

¹¹⁷ Lockyear 1996, 447; cf. Sîrbu, Bodo 2011.

¹¹⁸ Daicoviciu 1954, 94, pl. XV/8; Costea *et alii* 2006, 237-238, pl. CLIX; Gheorghiu 2005, 474-475, figs. 200-201; Matei 2016, 394, pl. 2/3-4.

¹¹⁹ Spânu 2010, 304-305; Spânu 2012a, 177-178.

¹²⁰ Sear 1998, 49-68; Netzer 2006. Cf. Babeș 1982, 466-468.

¹²¹ Spânu 2012b, 166-174; Sîrbu *et alii* 2007.

¹²² Cociș 1984; Rustoiu 1995; Spânu 2019.

some settlements. A series of types of fibulae of early Roman imperial period (Aucissa type, Almgren types 67-69, 82 and 236 etc; Fig. 10/6-15) are the main chronological indicators of a post-LT phase of the GMP culture. Along with these, some ceramic imports (*terra sigillata*) and Roman glass can be added¹²³. In the current state of research, only the inventory of the Movila Hârtoş tumulus at Poiana¹²⁴ can be considered to be representative for an earlier stage of the post-LT phase. This inventory gathers items of local tradition and Roman imports of the mid-1st century AD (Fig. 10/5). Except for some coarse ceramic shapes like the hand made mugs or pots, the research was unable to document the survival of late La Tène traditional types of fibulae, jewellery or weapons until the Roman conquest of Dacia. Roman standards and cultural models could have already been in place even before the arrival of the legions.

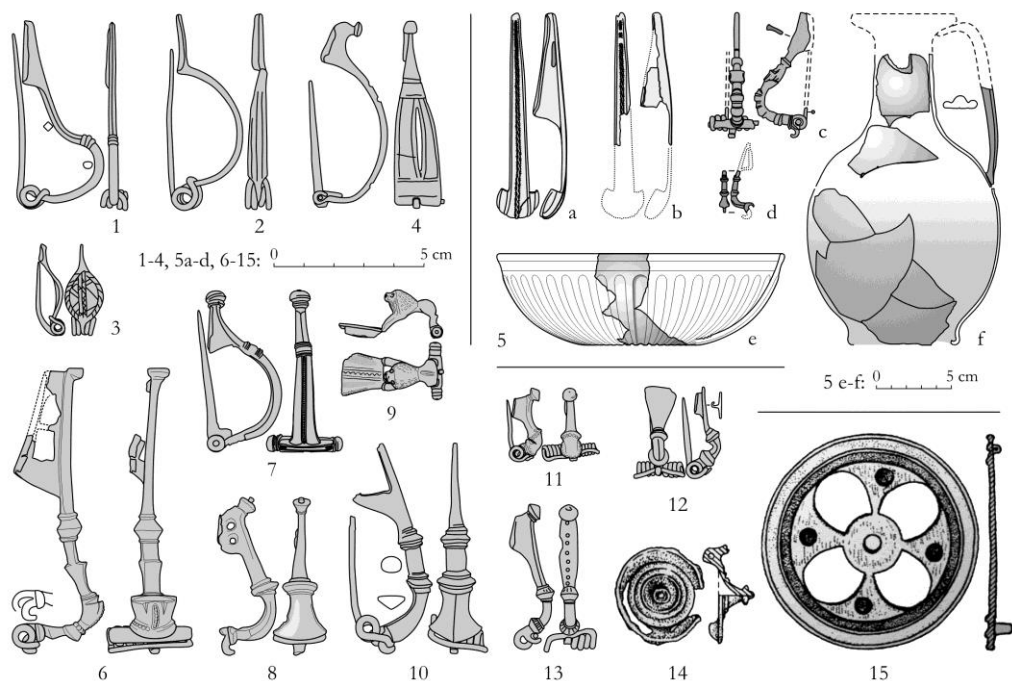


Fig. 10. 1-4. The earliest "Roman" fibulae types from GMP settlements (LT D2b); 5. items from 'Movila Hârtoş'- tumulus at Poiana; 6-15. Early Roman imperial fibulae types from GMP settlements (post-LT phase); 1-3. Poiana (Vulpe, Teodor 2003, 584, fig. 105/1-2 and 574, fig. 95/12); 4. Popeşti (Rustoiu 1995, 216, fig. 1/10); 5. Poiana–Movila Hârtoş (original); 6. Ocniţa (after a draw by Cristina Georgescu); 7-12. Poiana (after original); 13-14. Grădiştea de Munte (Gheorghiu 2005, 475, fig. 201/8 and 10); 15. Căpâlna (Gheorghiu 2005, 475, fig. 201/11). 1-4, 5 c-d and 6-15. bronze; 5 e-f. glass; 5 a-b. silver.

¹²³ Popescu 2013; Boţan 2015.

¹²⁴ Spânu 2009, 88-90, fig. 3; Spânu 2012b, 169-174, fig. 6-7.

According to some literary sources¹²⁵, between the end of the 1st century BC and mid-1st century AD, the southern bank of the Lower Danube (*ripa Thraciae*) was organized in several *strategiae* by the Thracian Kingdom. The Bulgarian and Romanian scholars were so far unable to emphasize the archaeological expression of this rule along the Thracian bank of the Danube. This topic remains a goal of future research.

Another important phenomenon unfolded during the 1st century AD is the Sarmatian penetration in eastern and southern Romania. The late dating (at the end of the 1st c. AD) of this infiltration was sustained by several scholars¹²⁶. However, the 'Buzău-1941 hoard' and, above all, some inhumation graves with Alesia-type fibulae require an earlier dating of the Sarmatian presence in Wallachia, probably already at the beginning of the 1st century AD¹²⁷.

12. SYNOPSIS

The periodization of Late La Tène period in Romania is determined by three main flows of imports: (1) the import of Rhodian and Cnidian amphorae in 2nd century BC, (2) the import of drachms and denarii during the first half of the 1st century BC and (3) the import of Roman fibulae at the turn of the Millennium. The import of Rhodian and Cnidian amphorae can be correlated to the beginnings (in the LT C2 phase) of both PL culture and CVV group. They did not penetrate the Carpathian arch. The decline of their import was followed by the massive influx of drachms and denarii that had reached this time also Transylvania. This new import of silver coins has induced a major reconfiguration of local cultural structures. It is probable that the PPK elites were involved in the processes of receiving and redistributing the imported silver coins beyond the mountains. That is why understanding and dating the tumulus no. 2 from Cugir (the most representative PPK-type grave in southern Transylvania) still has an overwhelming importance.

The jewellery hoards already reflect a stage when the Roman stipendia were absorbed in the local culture. Their emergence allows the distinction between LT D1 phase (without hoards) and LT D2 phase (with hoards). Further more, their analysis allows a distinction between LT D2a and LT D2b phases. This transition corresponds to the abandonment of the middle LT scheme of fibulae. The end of PL and PPK funerary traditions could also be synchronized with the transition from the LT D2a phase to the LT D2b phase. The imposition of the late LT scheme of fibulae (LT D2b) could be synchronized with the import of the earliest Roman fibulae, with the

¹²⁵ Matei-Popescu 2018.

¹²⁶ E.g. Oța 2016, 138-139 with previous literature.

¹²⁷ Harhoiu 1993; Babeș 1999; see Oța 2016, 140-142, pl. 4-5 for inventories with Alesia type fibulae. For the late 1st century AD penetration of the Iazigii in Banat, see Grumeza 2014.

intensifying of dwelling in local settlements and with the erection of the hill-forts and sanctuaries. To the end of LT D2b phase, the depositions of jewellery hoards have stopped and some settlements have been abandoned. Thus, the most iconic monuments of the GMP group (small *oppida*, hill-forts, jewelery hoards) occurred at once only in the second half of the late La Tène period. The post-LT phase of the GMP culture is characterized by the progressive adoption of Roman goods and cultural models, concentrated in certain settlements (especially the settlements from Poiana, Ocnița, Răcățău and Brad) and hill-forts. This time, the depositional and funeral rituals have been drastically blurred. Only in exceptional cases, some late La Tène traditions have reverberated until the mid-1st century AD (e.g. the tumulus 'Movila Hârtop' from Poiana).

In the concert of East European late La Tène cultures, the GMP group emerged only in the final act, when Rome had already assumed the principal conducting role. After a momentary excess of fast and monumentality (LT D2b), the GMP group has diminished its cultural and ritual expressiveness during the 1st century AD, and finally ceased its existence under the shock of the Roman conquest.

REFERENCES

- Babeș, M. 1975, *Problèmes de la chronologie de la culture geto-dace à la lumière des fouilles de Cîrlomănești, Dacia*, N.S. 19, 125-139.
- Babeș, M. 1982, *Zum Siedlungswesen der Geto-Daker in der Zeit vor der römischen Eroberung*, in Pappenfuss, D., Strocka, V., M. (ed.), *Palast und Hütte. Beiträge zum Bauen und Wohnen im Altertum von Archäologen Vor- und Frühgeschichtslern. Tagungsbeiträge eines Symposiums der Alexander von Humboldt Stiftung*, Bonn-Bad Godeberg, Mainz am Rhein, 461-472.
- Babeș, M. 1993, *Die Poienești-Lukaševka-Kultur. Ein Beitrag zur Kulturgeschichte im Raum östlich der Karpaten in den letzten Jahrhunderten vor Christi Geburt*, Bonn.
- Babeș, M. 1999, *Ein Tamga-Zeichen aus der dakischen Siedlung von Ocnița (Buridava)*, in Boroffka, N., Soroceanu, T. (ed.), *Transilvanica. Archäologische Untersuchungen zur älteren Geschichte des Südöstlichen Mitteleuropa. Gedenkschrift für Kurt Horedt*, Rahden, 223-238.
- Babeș, M. 2010, *Stațiunea geto-dacică de la Cârломănești: dava sau centru religios?* Mousaios 15, 123-146.
- Beldiman, C. 1988, *Cu privire la difuziunea produselor de bronz italice în Dacia preromană (descoperirea de la Țigănești, jud. Teleorman)*, *Thraco-Dacia* 9 (1-2), 75-82.
- Berciu, D. 1981, *Buridava dacică*, București.

- Bogdan Cătănciu, I. 1975, *Tezaurul monetar de la Poiana (jud. Teleorman). Unele aspecte ale circulației tetradrahmelor Macedoniei Prima și ale orașului Thasos în lumea traco-dacică*, SCN 6, 177-188.
- Bolla, M. 1994, *Vasellame romano in bronzo nelle Civiche Raccolte Archeologiche di Milano*, Rassegna di studi del civico museo archeologico e del civico gabinetto numismatico di Milano, Suppl. 11, Milano.
- Bolla, M., Castoldi, M. 2016, *I recipienti di bronzo in Italia settentrionale tra IV e I secolo a. C. e il caso del territorio veronese/Bronaste posode v severni Italiji med 4. in 1. stoletjem pr. n. št. in primer veronskega območja*, ArhVestnik 67, 121-175.
- Boroneanț, V., Davidescu, M. 1968, *Două bordeie dacice în Schela Cladovei-Turnu Severin*, Apulum 7 (1), 253-260.
- Boțan, S.-P. 2015, *Vase de sticlă în spațiul dintre Carpați și Prut (secolele II a. Chr. – II p. Chr.) / Glass Vessels between the Carpathian Mountains and the Prut River (2nd Century BC – 2nd Century AD)*, Cluj-Napoca.
- Boube, C. 1991, *Les cruches*, in Feugère, M., Rolley, C., *La vaisselle tardo-républicaine en bronze. Actes de la table-ronde CNRS organisée à Lattes*, Dijon, 23-45.
- Božič, D. 2008, *Late La Tène-Roman cemetery in Novo mesto. Ljubljanska cesta and Okrajno glavarstvo. Studies on fibulae and on the relative chronology of Late La Tène period. Poznolatensko-rimsko grobišče v Ljubljanska cesta in Okrajno glavarstvo. Študije o fibulah in o relativni kronologiji pozne latenske dobe*, Ljubljana.
- Callataÿ, F. d. 1997, *Histoire des guerres mithridatiques vue par les monnaies*, Louvain la Neuve.
- Callataÿ, F. d. 2000, *Guerres et monnayage à l'époque hellénistique. Essai de mise en perspective suivi d'une annexe sur la monnayage de Mithridate VI Eupator*, *Economie antique. La guerre dans les économies antiques*, Entretiens d'Archéologie et d'Histoire 5, Saint-Bernard-de-Compiègne, 337-364.
- Callataÿ, F. d. 2012, *A tetradrachm with the legend ΘΠΑΚΟΝ overstruck on an Athenian stephanephoros tetradrachm of ΑΠΕΛΛΙΚΩΝ-ΓΟΡΓΙΑΣ (88/87 BC) and its consequences for the Thasian type coinage*, in Paunov, E., Filipova, S. (ed.), *Studies in honour of Ilya Prokopov for his 60th birthday – from friends and pupils*, Veliko Tărnovo, 307-320.
- Casan-Franga, I. 1965, *Contribuții la cunoașterea ceramicii geto-dacice. Cupele "delliene" getice de pe teritoriul României*, ArhMold 5, 7-35.
- Chițescu, M. 1981, *Numismatic Aspects of the History of the Dacian State: the Roman Republican Coinage in Dacia and Geto-Dacian Coins of Roman Type*, BAR 112.
- Chirilă, E., Iaroslavschi, E. 1992, *Tezaurul monetar de la Bobaia, sec. II-I î.e.n.*, ActaMN 24-25, 1987-1988 (1992), 69-96.

- Chirilă, E., Mihăescu, G. 1969, *Tezaurul monetar de la Căprioru. Contribuții la studiul cronologiei și circulației tetradrahmelor Macedoniei Prima și ale Insulei Thasos, Târgoviște.*
- Chițescu, M. 1981, *Numismatic Aspects of the History of the Dacian State: the Roman Republican Coinage in Dacia and Geto-Dacian Coins of Roman Type*, BAR 112.
- Cociș, S. 1984, *Fibule romane în Dacia preromană*, ActaMP 8, 149-157.
- Conovici, N. 1985, *Contribuții privind cronologia și circulația drahmelor de Dyrrhachium și Apollonia la Dunarea de Jos*, CCDJ 1, 35-43.
- Conovici, N. 1986, *Aspecte ale circulației drahmelor din Dyrrhachium și Apollonia în Peninsula Balcanică și în Dacia*, BSNR 77-79, 68-88.
- Conovici, N. 1992, *Noi date arheologice privind începuturile culturii Poienesti-Lukaševka și prezența bastarnilor în Dobrogea*, SCIVA 43 (1), 3-14.
- Conovici, N. 1996, *Pe marginea unei recenzii*, SCIVA 47 (4), 369-373.
- Costea, F., Bălos, A., Savu, L., Ardevan, R., Ursuțiu, A., Șoneriu, I., El Susi, G., Ciută, B.D., Ștefan, D., Duțescu, M.-M. 2006, *Augustin-Tipia Ormenișului județul Brașov. Monografie Arheologică*, Brașov.
- Crawford, M.H. 1980, *Imitation of Roman Republican Denarii in Dacia*, SCN 7, 51-52.
- Crișan, I.H. 1978, *Ziridava. Săpăturile de la „Șanțul Mare” din anii 1960, 1961, 1962 și 1964*, Arad.
- Crișan, I.H. 1980, *Necropola dacică de la Cugir, jud Alba*, Apulum 18, 1980, 80-87.
- Daicoviciu, C. 1954, *Cetatea dacică de la Piatra Roșie*, București.
- Demetz, S. 1999, *Fibeln der Spätlatène- und Frühen Kaiserzeit in den Alpenländern, Frühgeschichtliche und provinzialrömische Archäologie. Materialien und Forschungen, Band 4*, Leidorf.
- Dimitrova, A., Gizdova, N., 1975, *Trakijski mogilni nekropoli v Panagjurskite kolonii pri gr. Panagjurište*, Izvestija na Muzeite v Južna Bălgaria 1, 39-87.
- Ferencz, I.V. 2011, *About the end of Celtic presence in South-western Transylvania*, in Guștin, M., Jevtić, M. (ed.), *The Eastern Celts. The communities between the Alps and the Black Sea*, Koper, Beograd, 171-177.
- Finkielsztejn, G. 2001, *Chronologie détaillée et révisée des éponymes amphoriques rhodiens de 270 à 108 av. J.-C. environ*, BAR-NS 990.
- Florea, G. 2011, *Dava et Oppidum. Débuts de la genèse urbaine en Europe au deuxième âge du Fer*, Cluj-Napoca.
- Feugère, M. 1985, *Les fibules de la Gaule Méridionale de la conquête à la fin du V^e s. ap. J.-C.*, Revue Archéologique de Narbonnaise, Supplément 12, Paris.
- Gabelmann, H. 1982, *Der silberne Skyphos aus Giubiasco*, Helvetia Archaeologica 13, 9-32.
- Gaebler, H. 1935, *Die antiken Münzen Nordgriechenlands. Makedonia und Paionia*, Berlin.

- Gheorghiu, G. 2005, *Dacii pe cursul mijlociu al Mureșului (sfârșitul sec. II a. Ch. - începutul sec. II p. Ch.)*, Cluj-Napoca.
- Gherghe, P. 1999, *Piese de port descoperite în așezarea geto-dacică de la Dobrești, jud. Dolj*, SCIVA 50 (1-2), 79-82.
- Gherghe, P., Ridiche, F., Bâsceanu, M. 2010, *Câteva considerații privind descoperirile de epocă Latène din arealul geografic al localităților Desa – Ciuperceni, jud. Dolj*, Analele Universității din Craiova, Seria Istorie, Anul XV, nr. 1 (17), 255-259.
- Gheorghiu, G. 2005, *Dacii pe cursul mijlociu al Mureșului (sfârșitul sec. II a. Ch. - începutul sec. II p. Ch.)*, Cluj-Napoca.
- Glodariu, I. 1971, *Considerații asupra circulației monedei străine în Dacia (sec. II î.e.n.- I e.n.)*, ActaMN 8, 71-90.
- Glodariu, I. 1976, *Dacian Trade with the Hellenistic and Roman World*, BAR-SS 8.
- Glodariu, I., Moga, V. 1989, *Cetatea dacică de la Căpîlna*, București.
- Glodariu, I., Iaroslavschi, E., Rusu, A. 1992, *Die Münzstätte von Sarmizegetusa Regia*, EphemNap 2, 57-68.
- Grace, V. R. 1985, *The Middle Stoa dated by amphora staps*, Hesperia 54 (1), 1-54.
- Grace, V., Savvatianou-Pétrapoulakou, M. 1970, *Les timbres amphoriques grecs*, Exploration archéologiques de Délos 27, Paris.
- Graue, J. 1974, *Die Gräberfelder von Ornavasso. Eine Studie zur Chronologie der späten Latène- und frühen Kaiserzeit*, Hamburger Beiträge zur Archäologie, Beiheft 1.
- Grumeza, L. 2014, *Sarmatian cemeteries from Banat (late 1st – early 5th centuries AD)*, Cluj-Napoca.
- Guštin, M. 2011, *On the Celtic tribe of Taurisci. Local identity and regional contacts in the ancient world*, in Guštin, M., Jevtić, M. (ed.), *The Eastern Celts. The communities between the Alps and the Black Sea*, Koper, Beograd, 119-128.
- Guzzo, P.G. 1980, *Argenterie da Palmi in ripostiglio del I sec. a. C.*, Atti e Memorie della Società Magna Grecia (Roma) 18-20, 1977-1979 (1980), 193-209.
- Harhoiu, R. 1993, *"Tezaurul" de la Buzău-1941*, SCIVA 44 (1), 41-52.
- Harhoiu, R. 1996, *Mircea Babeș, Die Poienești-Lukaševka-Kultur (review)*, SCIVA 47 (1), 108-110.
- Hellström, K. 2018, *Fibeln und Fibeltracht der Sarmatischen Zeit im Nordschwarzmeergebiet (2. Jh. v. Chr. – 3. Jh. n. Chr.)*, Archäologie in Eurasien, Band 39, Bonn.
- Horedt, K. 1973, *Die dakische Silberfunde*, Dacia, N.S. 17, 122-165.
- Horedt, K. 1976, *Fragen der dakischen Latènechronologie*, Thraco-Dacica 1, 127-130.
- Iarmulschi, V. 2012, *Amfore grecești descoperite în mediul culturii Poienești-Lucașeuca*, Tyragetia 6 (1), 195-206.

- Iarmulschi, V. 2016, *A few considerations regarding the chronology of the Poieniști-Lucșeuca culture*, PZ 91 (2), 471-494.
- Iliescu, O. 1972, *Lysimaque d'or trouvé à Sarmizegetusa Regia*, *Apulum* 10, 655-660.
- Irimia, M. 2006, *Bols à décor en relief du Sud-Ouest de la Dobroudja*, in Conrad, S., Einicke, R., Furtwängler, A.E., Löhr, H., Slawisch, A. (eds.), *Pontos Euxinos. Beiträge zur Archäologie und Geschichte des Antiken Schwarzmeer- und Balkanraumes. Manfred Oppermann zum 65. Geburtstag*, Langenweißbach, 69-79.
- Irimia, M., Conovici, N., Ganciu, A. 2011, *Sondaajul arheologic de la Satu Nou - „Vadu Vacilor” (com. Oltina, jud. Constanța)*, Constanța.
- Karwowski, M., Militký, J. 2011, *The Oberleiserberg types in the context of Taurisic influences*, in Guštin, M., Jevtić, M. (eds.), *The Eastern Celts. The communities between the Alps and the Black Sea*, Koper, Beograd, 131-136.
- Kasparova, K.V. 1984, *Zarubinckaija kul'tura v hronologiceskoi sisteme kul'tur epohi Latena*, *Arheologiceskij Sbornik* 25, 108-118.
- Künzl, S. 2002, *Römische Silberbecher bei den Germanen: Der Schalengriff*, in: Peška J., Tejral J. (ed.), *Das germanische Königsgrab von Mušov in Mähren*, *Römisch-Germanischen Zentralmuseums Mainz Monographien* 55, 2, Mainz, 329-350.
- Küthmann, H. 1958, *Beiträge zur Hellenistisch-römischen Toreutik*, *JRGZM* 5, 94-138.
- Lockyear, K. 1996, *Multivariate Money. A statistical analysis of Roman Republican coin hoards with special reference to materiale from Romania*, London.
- Lockyear, K. 1997, *The Supply of Roman Republican Denarii to Romania*, *SCN* 11, 1995 (1997), 85-102.
- Lorenz, H., Gerdson, H. 2004, *Chronologische Untersuchungen in dem Spätkeltischen Oppidum bei Manching am Beispiel der Grabungsflächen der Jahre 1965-1967 und 1971. Fundstellenübersicht der Grabungsjahre 1961-1974*, Stuttgart.
- Lund, J. 2011a, *A new sequence of the eponyms named on Rhodian amphora stamps in the first half of the second century BC as established through seriation*, *Acta Archaeologica* 82, 271-290.
- Lund, J. 2011b, *Rhodian Transport Amphorae as a Source for Economic Ebbs and Flow in the Mediterranean in the Second Century BC*, in Archibald, Z.H., Davies, J.K., Gabrielsen, V. (ed.), *The Economies of Hellenistic Societies. Third to First Centuries B.C.*, Oxford, 280-305.
- Lupu, N. 1989, *Tilișca. Așezările de pe Cățânaș*, București.
- Macrea, M., Glodariu, I. 1976, *Așezarea dacică de la Arpașu de Sus*, București.
- Makkay, J. 1995, *The Treasures of Decebalus*, *OJA* 14 (3), 333-341.
- Măndescu, D. 2000, *Fibulele de schemă Latène în perioada timpurie și mijlocie a celei de a doua epoci a fierului pe teritoriul vechii Dacii*, *Crisia* 30, 2000, 45-80.

- Măndescu, D. 2004, *Câteva considerații relative la tipul de fibule Orlea-Maglavit*, *Danubius* 22, 7-14.
- Măndescu, D. 2006, *Cetățeni. Stațiunea geto-dacă de pe Valea Dâmboviței superioare*, Brăila.
- Măndescu, D. 2015, *De la Mer Égée jusqu'au Carpates: la route du vin de Rhodos vers la Dacie*, in Tsetschladze, G.R., Avram, A., Hargrave, J. (eds.), *The Danubian Lands between the Black, Aegean and Adriatic Seas (7th century BC-10th century AD). Proceedings of the Fifth International Congress on Black Sea Antiquities (Belgrade, 17-21 September 2013)*, Oxford, 255-262.
- Măndescu, D. 2016, *The Chronology of the Rhodian Stamped Amphora Handles in the South-Eastern Proximity of the Carpathian Basin. A Case Study: the Late Iron Age Settlement at Cetățeni*, in Berecki, S. (ed.), *Iron Age Chronology in the Carpathian Basin. Proceedings of the International Colloquium from Târgu Mureș, 8-10 October 2015*, Cluj-Napoca, 357-388.
- Marčenko, I., Limberis, N.J. 2008, *Römische Importe in sarmatischen und maiotischen Denkmälern des Kubangebietes*, in Simonenko, A., Marčenko, I., Limberis, N.J., *Römische Importe in sarmatischen und maiotischen Gräbern zwischen Unteren Donau und Koban*, *Archäologie in Eurasien*, Band 25, Mainz, 265-401.
- Martin-Kilcher, S. 1998, *Gräber der späten Republik und der frühen Kaiserzeit am Lago Maggiore: Tradition und Romanisierung*, in Fasold, P., Fischer, T., von Hesberg, H., Witteyer, M., *Bestattungssite und Kulturelle Identität*, *Xantener Berichte* 7, Köln, 191-253.
- Matei, S. 2016, *Elements for a Chronological Framework of the Dacian Fortress from Târcov*, in Berecki, S. (ed.), *Iron Age Chronology in the Carpathian Basin. Proceedings of the International Colloquium from Târgu Mureș, 8-10 October 2015*, Cluj-Napoca, 389-394.
- Matei-Popescu, F. 2014, *The Western Pontic Greek Cities and the Roman Army*, in Cojocaru, V., Schuler, C. (eds.), *Die Außenbeziehungen pontischer und kleinasiatischer Städte in hellenistischer und römischer Zeit, Akten einer deutsch-rumänischen Tagung in Constanța, 20. – 24. September 2010*, Stuttgart, 173-208.
- Matei-Popescu, F. 2018, *The Thracian strategiae in Scythia Minor*, in Boteva-Boyanova D., Delev, P., Tzvetkova, J. (ed.), *Society, Kings, Gods. In memoriam professoris Margaritae Tachevae, Jubilaeus VII*, Sofia, 107-118.
- Maute, M. 1994, *Latènezeit* (s. v. *Fibel und Fibeltracht*), in Beck, H., Geuenich, D., Steuer, H. (eds.), *Reallexikon der germanischen Altertumskunde* 8, 5/6, 458-467.
- Meta, A. 2012, *Names and mintmarks at the mint of Dyrrhachium (c. 270-60/55): a case study*, *Revue Belge de Numismatique* 158, 21-38.
- Mihăilescu-Bîrliba, V. 1990, *Dacia Răsăriteană în secolele VI-I î.e.n. Economie și monedă*, Iași.

- Miron, A. 1991, *Die späte Eisenzeit in Hünsruck-Nahe-Raum: Mittel- und Spätlatènezeitliche Gräberfeld*, in Haffner, A., Miron, A. (eds.), *Studien zur Eisenzeit in Hünsruck-Nahe-Raum. Symposium Birkenfeld 1987*, Trierer Zeitschrift, Beiheft 13, 1991, 151-169.
- Mitrea, B. 1958, *Legăturile comerciale ale geto-dacilor din Muntenia cu Republica romană reflectate în descoperiri monetare*, SCN 2, 123-238.
- Mitrea, B. 2011, *Monedele descoperite în cetățuia geto-dacă de la Poiana*, ArhMold 34, 187-219.
- Moscalu, E. 1983, *Ceramica traco-getică*, București.
- Netzer, E. 2006, *The Architecture of Herod, the Great Builder*, Tübingen.
- Nicolăescu Ploșșor, C. S. 1948, *Antiquité celtique en Olténie*, Dacia 11-12, 17-33.
- Nikolov, B. 1965, *Trakijski pametnici vāv Vračansko*, Izvestija Sofia 28, 163-202.
- Nikolov, B. 1972, *Trakijski grobni nahodki ot Vračansko*, ArheologijaSofia 14 (3), 53-68.
- Nikolov, B. 1981, *Trakijski pogrebenija pri s. Sofronjievoo, Vračanski okrāg*, ArheologijaSofia 23 (3), 30-41.
- Oberländer-Târnoveanu, E. 2013, *Brățările regale de aur de la Sarmizegetusa Regia – apogeul artei prețioase la daci*, in Oanță-Marghitu, R. (ed.), *Aurul și argintul antic al României. Catalog de expoziție*, București, 92-115.
- Oța, L. 2016, *Beyond the Lower Danube limes – Sarmatian and Romans*, in: Alexandrescu, C.-G. (ed.), *Troesmis – a changing landscape. Romans and the Others in the Lower Danube Region in the First Century BC – Third Century AD. Proceedings of an International Colloquium Tulcea, 7th – 10th of October 2015*, BibIIP-A 12, Cluj-Napoca, 129-150.
- Paunov, E.I., Prokopov, I.S. 2002, *An Inventory of Roman Republican Coin Hoards and Coins in Bulgaria*, Milano.
- Petranyi, G. 1994, *Comments an the chronology of the final minting period of the Apollonian-Dyrrhachian drachms*, BSNR 136-137, 1992-1993 (1994), 67-75.
- Petranyi, G. 1996, *Relative chronology of the drachms of Apollonia and Dyrrhachium in the final period of minting*, Numismatikai Közlöny 94-95, 1995-1996 (1996), 3-18.
- Petrescu-Dîmbovița, M., Sanie, S. 1972, *Cercetări arheologice în așezarea de la Ciolăneștii din Deal (jud. Teleorman)*, ArhMold 7, 241-258.
- Piana Agostinetti, P. 1972, *Documenti per la protohistoria della Val d'Ossola. San Bernardo d'Ornavasso e altre necropoli preromane*, Centro Studi e Documentazione sull'Italia Romana. Monografie e supplemento degli Atti 1, Milano.
- Piana Agostinetti, P., Knobloch, R. 2010 *La cronologia della tarda età di La Tène e dell'età augustea nella Transpadana centro-occidentale*, Bollettino di Archeologia on line 1, (vol. speciale F/F10/2), 3-21.
- Piana Agostinetti, P., Priuli, S. 1985, *Il tesoro di Arcisate*, Archeologia Classica 37, 182-237.

- Poenaru-Bordea, G. 1974, *Câteva date noi privind circulația denarilor romani republicani în Dobrogea, Pontica* 7, 228-230.
- Poenaru-Bordea, G., Condrea, C. 1972, *Date noi privind tezaurul de la Adînca, jud. Dâmbovița*, Acta Valahica 3, 109-131.
- Poenaru-Bordea, G., Cojocărescu, M. 1984, *Contribuții la circulația monetară din centrul Transilvaniei în secolul I î.e.n. Tezaurul monetar descoperit la Iceland (com. Ernei, jud. Mureș)*, SCN 8, 53-76.
- Poenaru-Bordea, G., Chițu, Ș. 1980, *Tezaurul de denari republicani de la Lunca, orașul Ocnele Mari*, SCN 7, 149-153.
- Poenaru-Bordea, G., Știrbu, C. 1971, *Tezaurul de denari romani republicani și de la începutul principatului descoperit la Breaza, comuna Lisa (jud. Brașov)*, SCN 5, 265-282.
- Poenaru-Bordea, G., Stoica, O. 1980, *Tezaurul de la Breasta și alte descoperiri de denari romani republicani în Oltenia*, SCN 7, 71-81.
- Popescu, D. 1948, *Nouveaux trésors géto-daces en argent*, Dacia 11-12, 1945-1947 (1948), 35-69.
- Popescu, D. 1958, *Le trésor de Sîncrăeni*, Dacia 2, 157-206.
- Popescu, M.-C. 2013, *Hellenistic and Roman Pottery in Pre-Roman Dacia (2nd century B.C. – 1st century A.D.)*, Bucurest.
- Poplian, G. 1999, *Découvertes archéologiques dans l'île Ostrovul Șimian*, in Garašanin, M., Roman, P., Stângă, I., Tasić, N., Vasić, M. (red.), *Le Djerdap/les Portes de Fer à la deuxième moitié de premier millenaire av. J. Ch. jusqu'aux Guerres Daciques*, Kolloquium in Kladovo-Drobeta-Turnu Severin, Beograd, 55-64.
- Popović, P. 1987, *Le monnayage des Scordisques*, Novi Sad.
- Popović, P. 1992, *Fibule tipa "Orlea-Maglavit"*, Zbornic Narodnog Muzeja u Belgradu 14-1 (Arheologija), 319-326.
- Popović, P. 1994, *Lanzenfibeln des Westbalkans und der Donauniederung*, Balcanica 25 (1), 53-71.
- Popović, P., Sladić, M. 1997, *Mladje gvozdeno doba istočne Srbije*, Arheologija istočne Srbije, Beograd, 101-114.
- Preda, C. 1973, *Monedele geto-dacilor*, București.
- Preda, C. 1986, *Geto-dacii din bazinul Oltului inferior. Dava de la Sprîncenata*, București.
- Preda, C. 1998, *Istoria monedei în Dacia preromană*, București.
- Preda, C., Marinescu, G. 1986, *Contribuții la circulația monetară din Dacia în sec. I î.e.n. Tezaurul de la Șieu Odorhei, jud. Bistrița-Năsăud*, BSNR 77-79, 1983-1985 (1986), 19-67.
- Preda, C., Palincaș, N. 2005, *A tetradrachms hoard from settlement "A" at Popești*, Dacia, N.S. 48-49, 2004-2005, 77-98.

- Pupeză, L.-P. 2012, *Veacul întunecat al Daciei: arheologie și istorie în spațiul carpato-dunărean de la sfârșitul secolului al III-lea a. Chr. până la începutul secolului I a. Chr.*, Cluj-Napoca.
- Raev, B.A. 1977, *Die Bronzegefäße der römischen Kaiserzeit in Thrakien und Moesien*, BRGK 53, 605-642.
- Rieckhoff, S. 1998, "Römische Schatzfunde". Ein historisches Phänomen aus prähistorischer Sicht, in: B. Fritsch (ed.), *Tradition und Innovation, Prähistorische Archäologie als historische Wissenschaft. Festschrift für Christian Strahm, Internationale Archäologie, Studia honoraria 3*, Rhaden/Westfalen, 479-540.
- Rieckhoff, S. 2008, *Geschichte der Chronologie der Späten Eisenzeit in Mitteleuropa und das Paradigma der Kontinuität*, in Rieckhoff, S., Teegen, W.-R., Wolfram, S., *Leipziger online-Beiträge zur Ur- und Frühgeschichtlichen Archäologie* 30, 1-11.
- Roman, B., Sântimbreanu, A., Wollmann, V. 1982, *Aurarii din Munții Apuseni*, București.
- Rosetti, D.V. 1935, *Săpăturile arheologice de la Snagov*, Publicațiile Muzeului Municipiului București 2, 5-52.
- Rustoiu, A. 1995, *Le premier horizon de fibules romaines en Dacie préromaine*, *Thraco-Dacica* 16, 1-2, 211-219.
- Rustoiu, A. 1996, *Metalurgia bronzului la daci (sec. II î. Chr. - sec. d. Chr.). Tehnici, ateliere și produse de bronz*, *BiblThr* 15.
- Rustoiu, A. 1997, *Fibulele din Dacia Preromană*, *BiblThr* 22.
- Rustoiu, A. 2009, *A late republican bronze situla (Eggers type 20) from Cugir (Alba County), Romania*, *Instrumentum. Bulletin du Groupe de travail européen sur l'artisanat et les productions manufacturées dans l'Antiquité* 29, 33-34.
- Rustoiu, A. 2016a, *Commentaria archaeologica et historica II*, *Banatica* 26, 73-100.
- Rustoiu, A. 2016b, *Some question regarding the chronology of La Tène ceneries from Transylvania. Social and demographic dynamics in the rural communities*, in Berecki, S. (ed.), *Iron Age Chronology in the Carpathian Basin. Proceedings of the international colloquium from Târgu Mureș, 8-10 October 2015*, Cluj-Napoca, 235-264.
- Sear, F. 1998, *Roman Architecture*, Routledge.
- Șerbănescu, D. 1985, *Așezarea geto-dacică*, in: S. Morintz, D. Șerbănescu, *Rezultatele cercetărilor de la Radovanu punctul "Gorgana a doua" (jud. Călărași). Studii preliminare*, *Thraco-Dacica* 6 (1-2), 21-30.
- Simonenko, A.V. 2001, *Pogrebenie u s. Cisten'koe i "strannye" komplekсы poslednykh vekov do n. e.*, *Niznevolzskij arheologiceskij vestnik (Volgograd)* 4, 92-106.
- Simonenko, A.V. 2008, *Römische Importe in sarmatischen Denkmälern des nordlichen Schwarzmeergebietes*, in: Simonenko, A., Marčenko, I., Limberis, N. J.,

- Römische Importe in sarmatischen und maiotischen Gräbern zwischen Unteren Donau und Koban*, Archäologie in Eurasien, Band 25, Mainz, 1-264.
- Sîrbu, V., Luca, S.A., Roman, C., Purece, S., Diaconescu, D., Cerișer, N. 2007, *Vestigiile dacice de la Hunedoara Grădina Castelului / The Dacian Vestiges in Hunedoara Grădina Castelului*, Alba Iulia.
- Sîrbu V., Bodo, C. 2011, *Coins from Geto-Dacian sacred sites*, in Guștin, M., Jevtić, M. (ed.), *The Eastern Celts. The communities between the Alps and the Black Sea*, Koper, Beograd, 207-218.
- Sîrbu V., Borangic, C. 2016, *Pumnalul sica în nordul Dunării (~200 a. Chr. – 106 p. Chr.) / Le poignard sica au nord du Danube (~200 av. J.-C. – 106 ap. J.-C.)*, Brăila.
- Sîrbu, V., Rustoiu, A. 1999, *Découvertes funéraires géto-daces du sud-ouest de la Roumanie*, in Garașanin, M., Roman, P., Stângă, I., Tasić, N., Vasić, M. (eds.), *Le Djerdap/les Portes de Fer à la deuxième moitié de premier millenaire av. J. Ch. jusqu'aux Guerres Daciques*, Kolloquium in Kladovo-Drobeta-Turnu Severin, Beograd, 77-91.
- Spânu, D. 2002, *Studien zum Silberschatzfund des 1. Jahrhunderts v. Chr. von Lupu, Rumänien*, PZ 77 (1), 84-136.
- Spânu, D. 2004, *Un mormânt de epoca târzie Latène de la Dubova*, SCIVA 52-53, 83-132.
- Spânu, D. 2006, *Anthropomorphe Darstellungen auf den reliefverzierten Bechern von Zimnicea. Beiträge zur Ikonographie und Mythologie des vorrömischen Dakien, Dacia*, N.S. 50, 297-322.
- Spânu, D. 2009, *The Spoon-Bow Fibula Retrieved from the Giurgiu Customs. Observations on the Spoon-Bow Fibulae from the Lower Danube Area*, in Alexandrescu, C., Tănăsescu, B. (ed.), *Treasure Lost, Treasure Regained*, The Heritage Series No. 1, Giurgiu, 85-94.
- Spânu, D. 2010, *Zur Analyse der Goldspiralen von Grădiștea de Munte, Rumänien*, Das Altertum 55, 4, 271-314
- Spânu, D. 2012a, *Tezaurile dacice. Creația în metale prețioase din Dacia preromană*, București.
- Spânu, D. 2012b, *Zur Transformation der Bestattungssitten östlich der Karpaten im Kontext der römischen Eroberung Dakiens*, PZ 87 (1), 161-188.
- Spânu, D. 2012c, *Kantharos Cups from the Sâncrăieni-Hoard: Restoration and Manufacturing Issues*, Caiete ARA 3, 11-21.
- Spânu, D. 2018, *Kostrzewski K Fibula in Padea Panagjurski Kolonii Group*, in Rustoiu, A., Egri, M., Berecki, S. (eds.), *Iron Age Connectivities in the Carpathian Basin. Proceedings of the International Colloquium from Târgu Mureș, 13-15 October 2017*, Cluj-Napoca, 239-252.

- Șpânu, D. 2019, *Two Leontomorphic Fibulae from Poiana*, in Berzovan, A. (ed.), *Omagiu Silviei Teodor*, (in print).
- Ștefan, A.S. 2005, *Les guerres daciques de Domitien et de Trajan. Architecture militaire, topographie, images et histoire*, Collection de l'école française de Rome 353, Rome.
- Stoicovici, E. 1968, *Contribuții la turnarea metalografică a unor monede de bronz și de argint din Antichitate*, SCN 4, 343-345.
- Sulișteanu, M. 1971, *În legătură cu tehnica monetară la geto-daci*, SCN 5, 251-253.
- Teleaga, E. 2008, *Griechische Importe in den Nekropolen an der Unteren Donau, 6. Jh. - Anfang des 3. Jhs. v. Chr.*, Marburger Studien zur Vor- und Frühgeschichte, Band 23, Rahden.
- Teleaga, E., Bălășescu, A., Soficaru, A., Schoch, W. 2014, *Die Scheitenufen aus Cugir und Tarinci. Ein Beitrag zu den Bestattungssitten der Balkanhalbinsel und des vorrömischen Dakiens in der Spätlatènezeit*, PZ 89 (2), 305-336.
- Teleaga, E. 2016, *Schwerter aus der Region des Eisernen Tores. Ein chronologischer Beitrag der Mittel- und Spät-La-Tène-Waffengräber*, in Berecki, S. (ed.), *Iron Age Chronology in the Carpathian Basin. Proceedings of the International Colloquium from Târgu Mureș, 8-10 October 2015*, Cluj-Napoca, 293-323.
- Theodossiev, N. 2000, *North-Western Thrace from the Fifth to First Centuries BC*, BAR 859.
- Torbagyi, M. 1986, *The circulation of Thasian coins in the Carpathian Basin*, in Carradice I.A. (ed.), *Proceedings of the 10th international congress of numismatics*, London, 23-25.
- Ujes-Morgan, D. 2012, *1st century BC drachms of Apollonia and Dyrrhachium in the territory of the Scordisci. A prologue of the Roman conquest of the Balkans*, in Paunov, E., Filipova, S. (ed.), *Studies in honour of Ilya Prokopov for his 60th birthday – from friends and pupils*, Veliko Tărnovo, 367-388.
- Ursachi, V. 1995, *Zargidava. Cetatea dacica de la Brad*, BiblThr 10.
- Vaida, L. 2000, *The celtic cemetery from Orosfaia (Bistrița-Năsăud county)*, in Gaiu, C., Rustoiu, A. (eds.), *Les celtes et les thraco-daces de l'est du Bassin des Carpathes, Les actes du colloque national qui a eu lieu à Bistrița le 16-17 Octobre 1998*, Cluj-Napoca, 135-159.
- Vulpe, R. 1957, *La civilisation dace et ses problèmes à la lumière des fouilles de Poiana en Basse Moldavie*, Dacia, N.S. 1, 143-164.
- Vulpe, A. 1976, *La nécropole tumulaire gète de Popești*, Thraco-Dacica 1, 193-215.
- Vulpe, R., Vulpe, E., Nițu, A., Matasă, C., Cihodaru, C., Călinescu, C., Bălan, V., Kiss Ș., Negruți, E., Petre, R., Ștefănescu, Ș. 1951, *Raport preliminar asupra activității șantierului arheologic Poiana-Tecuci 1950*, SCIV 2, 1, 177-216.

- Vulpe, R. Vulpe, E., Chirilă, E., Florescu, R. , Gostar, N., Nițu A. 1952, *Șantierul Poiana*, SCIV 3, 191-230.
- Vulpe, A., Gheorghită, M. 1976, *Bols à reliefs de Popești*, Dacia, N.S. 20, 167-198.
- Vulpe, R., Teodor, S. 2003, *Piroboridava. Așezarea geto-dacică de la Poiana*, București.
- Vulpe, R., Dunăreanu-Vulpe E. 1933, *Les fouilles de Poiana*, Dacia 3-4, 1927-1932 (1933), 253-351.
- Winkler, I. 1955, *Contribuții numismatice la istoria Daciei*, Studii și Comunicări Științifice Cluj 6, 150-180.
- Winkler, J. 1967, *Schatzfunde römischer Silbermünzen in Dakien bis zum Beginn der Dakerkriege*, Jahrbuch für Numismatik und Geldgeschichte 17, 123-156.
- Winkler, I. 1968, *Tehnica emisiunilor monetare la daco-geți*, SCN 4, 335-341.
- Winkler, I. 1981, *Contribuții numismatice la istoria Daciei în sec. I î.e.n.*, BSNR 70-74, 1976-1980 (1981), 111-122.
- Werner, W. M. 1988, *Eisenzeitliche Trensen an der unteren und mittleren Donau*, PBF XVI, 4.
- Woźniak, Z. 1974, *Wschodnie pogranicze kultury lateńskiej*, Wrocław, Kraków, Gdańsk.
- Zirra, V. 1976, *Le problème des Celtes dans l'espace du Bas-Danube*, Thraco-Dacica 1, 175-182.
- Zirra, V.V. 2017, *Fibule de schemă La Tène din România*, Craiova.