# Objects specific to the Poienești-Lucașeuca Culture in Transylvania. Research stage

### **Iosif Vasile Ferencz**

#### Abstract:

Transylvania is a distinct region framed by the Carpathian Mountains, which form a natural boundary. The term 'Transylvania' is often used to designate the entire area within the mountain range. Although seemingly isolated, Transylvania has always been connected to the territories to the east and south via a series of passes and valleys that cross the Carpathian Mountains and have been in use since prehistoric times. Transylvania is also connected to the Great Hungarian Plain to the west via the courses of several rivers. The Mures and Somes rivers are the most important, having been used from prehistoric times to the present day. These geographical features have influenced the cultural evolution of Transylvanian societies throughout the Late Iron Age. Culturally and historically, this period can be divided into two distinct phases. The first is the 'Celtic horizon' (c. 350-190/175 BC), which was oriented towards Central European cultural patterns. The second is the 'Dacian horizon' (c. 190/175 BC to 106 AD), which predominantly followed North-Balkan and Mediterranean models. The period in which the Celtic horizon ends and the Dacian one begins is characterised by few finds, and their significance is sometimes unclear. Among these discoveries are several La Tène-level settlements containing elements with perfect analogies in the Poienești-Lucașeuca culture. The geographical setting in which the finds are reported provides an important detail for understanding the significance of the presence of these materials in the Transylvanian La Tène environment. They all come from sites located in the valley of the Mures, the most important river in the area. The watershed of this river runs through the Transylvanian Depression and around it, the majority of human settlements are located. In this context, the role of the Mures as the main link between the Transylvanian Depression and Central Europe must be emphasised. The wide, easily accessible corridor created by this river facilitates communication between the two geomorphological units. Numerous historians and ancient authors such as Herodotus and Strabo have noted its importance for ancient trade. Building on these particularities, we aim to present our knowledge of some finds that can be considered 'exotic' in Transylvania at the end of the 3rd and beginning of the 2nd century BC, specifically the Poienești-Lucașeuca finds.

**Keywords:** Transylvania; La Tène; Poienești-Lucașeuca culture; Bastarnae; communication routes; warriors; mobility.

Transylvania as a distinctly region is framed by a real natural border defined by the Carpathian Mountains (Fig. 1). The name 'Transylvania' is used often to designate the entire region from inside the mountain range. Even it looked to be

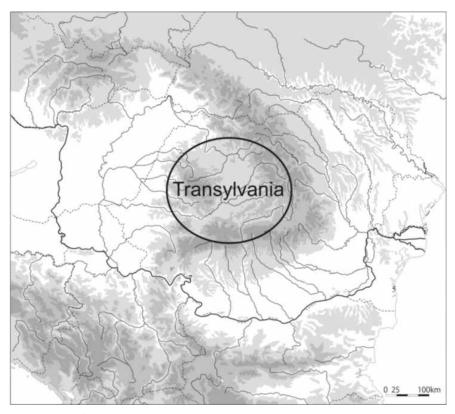


Fig. 1. The region designated as Transylvania.

isolated, the area has in fact always been connected with the eastern and southern territories through a series of passes and valleys which cross over the Carpathian Mountains which were used since prehistoric times. Transylvania is also linked to the Great Hungarian Plain to the west, by courses of some rivers. The Mureş and the Somes are the most important, and they were used from prehistory to modern ages. (Rustoiu 2015, 9)

Speaking of the landscape and the vegetation, the area between the Mureş and the Somes valeys is characterized by a high plain with a hilly aspect and steppe-like vegetation, but many areas inside the mountain range were mostly forested (Rustoiu 2015, 9). The name of the region, 'Transilvania', still preserves the memory of the vast forests from past times. The landscape and vegetation features together to the geographic location of the natural resources influenced during the time the specifics of human habitationation, but also the social structures of the communities and the control and distribution strategies of the resources. As an example, was often noted that the lowland communities always needed Transylvanian resources (especially salt) and the access to these goods has constantly been negotiated using a variety of means (Medelet 1995a; Medelet 1995b, Ferencz 1998, 219, Ferencz 2007, 158).

These geo-morphological features influenced the cultural evolution of the Transylvanian societies throughout the Late Iron Age. Culturally and historically, this period is divided into two distinct horizons. The first one is the "Celtic horizon" (between ca. 350 and 190/175 BC), which was oriented towards the central-European cultural models. The second is the "Dacian horizon" (between ca. 190/175 BC and AD 106), preponderantly leaning towards northern Balkans and Mediterranean models (Rustoiu, Egri, Ferencz 2021, 38-51).

The chronological interval in which the end of the Celtic horizon is placed, as well as the beginning of the Dacian one, is characterized by few discoveries and their meaning is sometimes not very clear (Ferencz 2011).

The purpose of this paper is to present the state of knowledge of some discoveries that can be considered "exotic" in Transylvania at the end of the third century and the beginning of the second century BC. More precisely it is about the Poienești-Lucașeuca type discoveries.

## The archaeological file

The first discoveries we know about were found in Morești (town Ungheni, Mureş County) in the center of Transylvania. To be more precisely, in the 50s of the last centuries, Kurt Horedt professor in Cluj excavated in Morești, in the

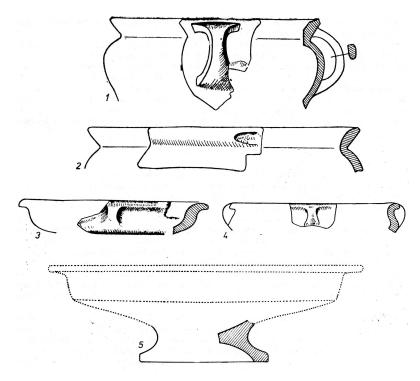


Fig. 2. Pottery of the Poieneşti-Lucaşeuca type discovered in Moreşti (after Horedt 1979).

Mureş Valley, a site inhabited over time by several human communities. Among these is included a LT habitation level (Horedt 1979, 35-52). During research, close to some features were found, grouped, fragments of vessels with analogies in the Poienești-Lucașeuca cultural environment. There are deep bowls with faceted rims and pots with x-shaped handles (Fig. 2) (Horedt 1979, 35, 46, 50-52 Abb 21; Berecky 2008 68-69).

In the last decade of the 20th century, archaeological research on the territory of another locality located also on the Mureş Valley, in Şeuşa (com. Ciugud, Alba county), revealed new ceramic fragments of the same kind, associated with the habitation of a LT community (Fig 3) (Ferencz, Ciută 2005; Ferencz 2007, 147, Pl. LXXXIX; Ferencz 2011). Let's mention that this site also includes dwellings from several historical eras.

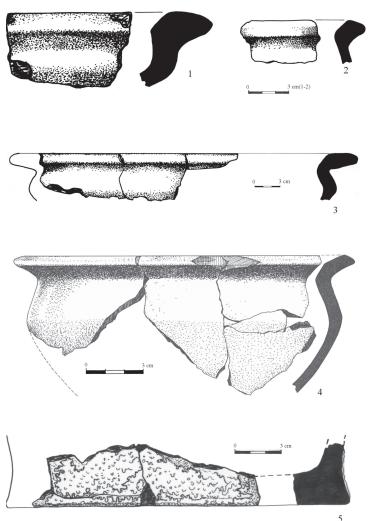


Fig. 3. Pottery of the Poienești-Lucașeuca type discovered in Şeuşa,(after Ferencz 2007).

The newest discovery took place in 2016, as a result of the rescue research occasioned by the construction of a highway, near Iernut, Mureş county (Ursuțiu, Urák 2019). Unlike the first two cases in which ceramic fragments were found, in the third case the vessels are not broken (Fig. 4). Moreover, the authors of the discovery believe that they come from a complex that could be a child's grave, even if the bones are missing. In addition, elements of funerary rite and ritual (depositing offerings in a wooden box) seem to indicate Celtic tradition (Ursuţiu, Urák 2019, 170).

In all these cases pottery of Poienești-Lucașeuca type have been discovered in Transylvanian sites associated with archaeological materials dated to the middle La Tène (C1). I previously mentioned that during an interval of time placed between ca. 350 and 190/175 BC) the intracarpathian space is characterized as the "Celtic horizon". Which means that the cultural orientation of the communi-

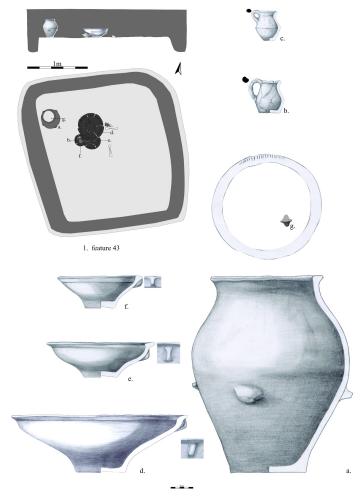


Fig. 4. The complex investigated in lernut and its ceramic inventory (after Ursuţiu, Urák 2019 Squares – Greek cities on the shore of the western Black Sea; black dots – settlements).

ties in that area was focused towards central and western European models (Rustoiu 2015, 11). We have to take into account this chronological interval and the moment in which the beginning of the Poienești-Lucașeuca habitation east of the Carpathians is supposed (Iarmulschi 2020). That's why I supposed that the chronological interval in which the pottery reached Morești, Şeuşa and Iernut is well defined, at the beginning of the 2nd century BC. That chronological interval marks the end of the C1 subphase of the La Tène in the intracarpathian space (Ferencz 2011, 76).

Therefore, the Poienești-Lucașeuca archaeological materials discovered in Transylvania are associated to the end of "Celtic" habitation in that area.

An important detail for understanding the significance of the presence of the respective materials in the Transylvanian La Tène environment is provided by the geographical setting in which the discoveries are reported. It can be seen that they all come from sites located on the valley of the most important river in the entire area: the Mureş (Fig. 5). Its hydrographic basin crosses the Transylvanian Depression and is the main artery around which the vast majority of human settlements gravitate.

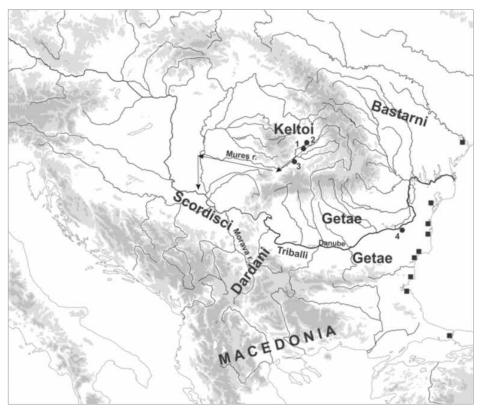


Fig. 5. Cultural areas in the north of the Balkan peninsula at the end of the 3rd century B.C. and the beginning of the 2nd century B.C. (and a "grave") located outside the area of Poienesti-Lucașueca culture having "bastaranic" ceramic in their inventories: 1. lernut; 2. Morești; 3. Şeuşa; 4. Satu Nou - Valea lui Voicu; the arrows indicate a possible itinerary on the Mureșului Valley and then on the Tisza Valley (map after Aurel Rustoiu 2023, with additions).

In this context, it is necessary to emphasize the role played by Mures, as the main link between the Transylvanian Depression and the Central European areas, the wide and easily accessible corridor made by this river facilitated the communication between the two geo-morphological units. Its importance for trade in antiquity has been noted by numerous historians (Glodariu 1974, 117-118; Mărghitan 1977, 203-207; Rustoiu 2002, 36). And even more, as a proof of its significance in the writings of some ancient authors (such as Herodotus IV, 48 and Strabo VII, 3, 13) it is considered that the Marisos River flows into the Danube and not into the Tisza.

Once the "archaeological file" of these discoveries is exposed, we have to try to understand the significance of their presence at long distance to the areas where they were frequently used. Let's emphasize once again the fact that we are dealing with pottery, fully preserved or fragmentary which were made by hand. Kurt Horedt, who discovered the first fragmentary vessels of this type, he ruled out trade from his list of possible explanations for their presence. He also considered that sherds to be evidence of the physical presence of a Poienești-Lucașeuca community in Morești. In addition, he expressed his opinion that this community had a certain role in the disappearance of the Celts from Transylvania (Horedt 1979, 50-51).

Later, Mircea Babes attributed the presence of Bastarnian pottery found in Morești to an "attempt of the Bastarnians to penetrate intra-Carpathian Dacia" (Babes 2001, 527). Later, Aurel Rustoiu, in 2002 with caution, expressed his opinion that the ceramic fragments from Morești can be contemporary with the first Balkan raids of the Bastarnians (Rustoiu 2002, 33).

The discovery of new ceramic fragments of the same kind in Şeuşa, allowed myself to express my point of view in 2005, together with Marius Mihai Ciută, and further in 2006, 2007 and 2011 (Ferencz, Ciută 2005; Ferencz 2006, 54-57; Ferencz 2007, 147, 159-160 Ferencz 2011, 175-177). As Kurt Horedt considered, I also ruled out the possibility of trade, concerning handmade vessels, at a long distance and in an environment in which other forms of dishes were preferred and implicitly a particular dining style. Instead, taking into account the dating of the discoveries, I proposed their interpretation in the context of some historical information. The interpretation proposed by me had in mind the message from the years 184-182 sent by King Philip the Vth, who convinced the Bastarni to fight against the Dardanians and supporting him in his anti-Roman plans (Titus Livius, XL, 57, 2). As we know, the result was that, in 179 BC the large numbers of Bastarnians crossed the Danube to fulfill the agreement and will make their presence felt in the Balkans for a decade (Babes 2001, 522).

On the same occasion, I introduced the hypothesis that the route chosen by the Bastarn warriors from the areas where the Poienesti-Lukaševka culture is attested towards the lands of the Dardanians, crossing Transylvania, along the Mures Valley. That scenario was an alternative to the one previously proposed by Niculae Conovici, for the same event, based on the discoveries from Satu Nou -"Valea lui Voicu" in Dobrogea (Conovici 1992, 12).

Paul Pupeză criticized the interpretative model proposed by me. He tried to find arguments for their interpretation from the perspective of commercial relations, but he himself admits that it is difficult to argue such a hypothesis. He proposes the interpretation of the discoveries from the perspective of "individual mobilities", both for the pottery from Moreşti and for that from Şeuşa, bringing as an argument a contemporary discovery from the south of the Carpathians (in Teleşti-Drăgoesti), analyzed by Aurel Rustoiu (Pupeză 2012, 417).

My colleague and friend Berecki Sándór also believe that the presence of Bastarnic pottery can be explained by individual mobilities (of some Bastarnic families). Moreover, he finds their dating ambiguous and believes they may date later. He takes into considerations other explanations, such as pottery trade or even matrimonial alliances, but without providing any arguments to support such an interpretation. He rightly points out that there can be multiple directions of interpretation. But he completely excludes the possibility that the Bastarnians employees by Philip the V<sup>th</sup>, or later by his successor, Perseus (Plutarh, Aemilius Paulus 9), could have crossed Transylvania on their way to the Danube. In relation to the itinerary traveled on that occasion, he only considering a longer route, east of the Carpathians, as Niculae Conovici had supposed before. And he does not provide arguments for this hypothesis either (Berecki 2008, 68-70; Berecki 2014, 15-16).

Dragoş Măndescu, take it into discussion the evidence regarding to the end of the Celtic horizon in Transylvania (Măndescu 2013). On that occasion, he also analyzes a "scenario" in which the end of Celtic habitation in the intra-Carpathian area is due to conflicts with the Bastarni. As a result, he expresses his opinion that he does not believe that there are arguments for such an assumption. He remarks the low number of Poienești-Lucașeuca-type discoveries, but he also notes that it is a coincidence that the end of the Celtic horizon corresponds to the time when the Bastarni appeared in the area (Măndescu 2013, 123-126).

Dinu Bereteu, a young archaeologist from Cluj-Napoca showed special interest in the field verification of some information regarding some older discoveries. In this context, he investigated some areas in the hilly and mountain places, located in the north-east of Transylvania (Bereteu 2016). On that occasion, he issued the opinion that the local population has built an entire fortification system against the Bastarnae threat along the north-eastern area of Călimani Mountains. He also notticed as well as a series of treasures buried during the 2nd century BC, represent the effects of ancient raids in Transylvania.

Short considerations were given by Adrian Ursuţiu and Málvika Urák, on the occasion of the publication of the discovery from Iernut (Ursuţiu, Urák 2019). Regarding the interpretation of the presence of Bastarnian vessels in that place, as well as in the other two locations, at Moreşti and Şeuşa. The two archaeologists from Cluj-Napoca, completely agree with the opinion expressed by Berecki (Ursuţiu, Urák 2019, 170).

The newest opinion is expressed by Aurel Rustoiu (Rustoiu 2023). He critically analyzes the Poienesti-Lucaşeuka type discoveries, from Transylvania starting from the most recent one, from Iernut. It argues for the dating of all three situations (Morești, Şeuşa and Iernut) at the end of the La Tène C1 stage (before or around 200 BC). He also analyzes possible meanings of the Poienești-Lucașeuka



type discoveries in Transylvania. In this context, he emphasizes the role of Mures as a communication artery that facilitated long-distance connections between human communities, which involved individual and collective mobilities. He is also of the opinion that the Dobrogean route cannot be excluded. The possibility that the Poienești-Lucașeuca type vessels discovered in La Tène sites in Transylvania represent the archaeological traces of the movement of some Bastarnian groups, perhaps even on the occasion of the expedition against the Dardanians, cannot be excluded either (Rustoiu 2023, 146-155).

## Concluding

Specific findings to the Poienesti-Lucașeuca culture in Transylvania are still few. The most numerous are fragments of some ceramic vessels coming from contexts dated to the end of La Tène C1 (before or around 200 BC). Most do not have a very clear context in which they were discovered. Just a recent discovery can be interpreted as a funerary complex.

All three known sites with such objects are located in the Mures Valley, the most important communication artery in Transylvania. They seem to stake out an itinerary. And we can asume that they attest to individual or collective mobilities.

In relation to the significance of the respective discoveries, a series of questions arise regarding the impact of human mobilities in a certain context. The hypothesis regarding the association of discoveries to any kind of commercial relations could not be argued neither in the past nor today. Regarding matrimonial relationships or as gifts, explanations that have already been considered, the arguments are just as few.

As far as we are concerned, we still believe that the events following which the ceramics specific to the Poienesti-Lucașeuca culture reach the La Tène environment in Transylvania are represented by the first Balkan campaigns of the Bastarni. In such a context, we can assume the interaction between the two communities, even if other details cannot be specified at this time. The lack of traces attesting to violence shows the peaceful character of the relations between them. We assume the existence of some affinities between the two population groups, as Petar Popović assumes that the Bastarni would have had with the Scordisci (Popovič 1999, 47). Let's also remember that Plutarh thinks that the Bastarni are Gauls and that they live along the Danube (Plutarh, Aemilius Paulus 9.5). Anyway, certain contacts should have been established between the leaders of the population who lived in the area and those who crossed it. And following the negotiations, free and safe passage through the territory controlled by the former should be ensured (Rustoiu 2023, 152).

What can be affirmed with certainty is the presence of artifacts specific to the Bastarni in Transylvania, in the inventory of some sites located in the Mures valley, at a great distance from the geographical limits of the Poeneşti-Lucaşeuca culture. Other details are difficult to distinguish based on the findings we know at this stage of the research.

## **Bibliography**

Babeş, Mircea. 2001. "Spaţiul carpato-dunărean în secolele III-II a. Chr.". In Istoria Românilor, vol. I editat de M. Petrescu -Dâmbovița, Al. Vulpe, 501-531. București: Editura Academiei Române.

Berecky, Sándór. 2008. "The La Tène settlement from Morești", Cluj-Napoca: editura Mega.

Berecky, Sándór. 2014. "The Coexistence and Interference of the Late Iron Age Transylvanian Communities". In Fingerprinting the Iron Age. Approaches to Identity in the European Iron Age. Integrating South-Eastern Europe into the Debate edited by C.-N. Popa, S. Stoddart, 11-17. Oxford: Oxbow books.

Bereteu, Dinu Ioan. 2016. "Fortificația din a doua epocă a fierului de la Sebiș (jud. Bistrița-Năsăud)". Sargetia S.N. VII: 201–229.

Conovici, Niculae. 1992. "Noi date arheologice privind începuturile culturii Poienești-Lukaševka și prezența bastarnilor în Dobrogea". SCIVA 43/1: 3–13.

Ferencz, Iosif Vasile. 1998. "Cele mai timpurii descoperiri celtice pe cursul mijlociu al Mureșului". Analele Banatului S. N. VI: 215-226.

Ferencz, Iosif Vasile, Ciută, Marius Mihai. 2005. – I. V. Ferencz, – M. M. Ciută, "Considerații pe marginea unor materiale descoperite la Șeușa (com. Ciugud, jud. Alba)". Istros 12: 239–254.

Ferencz, Iosif Vasile. 2006. "Relații etnice sau relații interculturale? Privire asupra unor realități istorice ale Transilvaniei în secolul al II-lea î. Chr.". In Relații interetnice în spațiul românesc. Populații și grupuri etnice (sec. II î. Hr. – V d. Hr.), edited by I.-M. Tiplic, Ioan-Marian, S.-I. Purece, 49-71. Alba Iulia: Bibliotheca Septemcastrensis.

Ferencz, Iosif Vasile. 2007. *Celții pe Muresul Mijlociu*. Sibiu - Alba Iulia: Altip.

Ferencz, Iosif Vasile. 2011. "About the end of the Celtic presence in Southwestern Transylvania". In The Eastern Celts. The Communities between the Alps and the Black Sea, edited by M. Guštin, M. Jeftić, 171-178. Koper – Beograd: Univerza na Primorskem, Znanstveno-raziskovalno središče Koper, Založba Annales

Glodariu, Ioan. 1974. Relații comerciale ale Daciei cu lumea elenistică și Romană. Cluj-Napoca: Editura Dacia.

Horedt, Kurt. 1979. Morești. Grabungen in einer Vor-Und Frühgeschichtlicen siedlung in Siebenbürgen. Bucharest: Kriterion.

Iarmulschi, Vasile. 2020. "Din nou cu privire la data de început a culturii Poienești-Lucașeuca". Tyragetia S. N. XIV [XXIX]: 207-214.

Mărghitan, Liviu. 1977. "Valea Mureșului - Parte integrantă a sistemului de fortificație a Daciei". Sargetia XIII: 203-207.

Măndescu, Dragoș. 2013. "The "Dark" Second Century BC in Transylvania. In Search for the Missing Link Between the Fall of the Celts and the Rise of the Dacian Culture". *Acta Archaeologica Carpatica* 48: 111–134.

Medelet, Florin. 1995a. "Über das Salz in Dakien". Archäologier Östereichs 6/2: 53-57.

Medelet, Florin. 1995b. "Sarea daciei preistorice". Analele Banatului S. N. IV: 285-301.

Popovič, Petar. 1999. "The Scordisci and the Bastarnae". In Le Djernap/Les Portes de fer a la deuxième moitié du premier millénaire av. J. Ch. Jusqu'aux guerres daciques. Kolloquium in Kladovo - Drobeta-Turnu Severn (September-October 1998), 1998, seria Jugoslawisch-rumänische Kommission fur die Erforschung der Region des Eisernen Tores III, edited by Miloje Vasić, 47-54. Beograd.

Pupeză, Luca-Paul. 2012. Veacul întunecat al Daciei. Cluj-Napoca: Editura Mega.

Rustoiu, Aurel. 2002. Războinici și artizani de prestigiu în Dacia preromană, Cluj-Napoca: Editura Mega.

Rustoiu, Aurel. 2015. "The Celtic horizon in Transylvania. Archaeological and historical eyidence". In Iron Age Settlement Patterns and Funerary Landscapes in *Transylvania* (4<sup>--</sup> – 2<sup>--</sup> *Centuries BC*), edited by Berecki Sándór, 9-29. Târgu Mureş: Editura Mega.

Rustoiu, Aurel, Egri, Mariana, Ferencz, Iosif Vasile. 2021. "Human mobility and cultural and social identity changes in south-western Transylvania. An archaeological approach". In Community Dynamics and Identity Constructs in the Eastern Carpathian Basin during the Late Iron Age. The impact of human mobility, edited by Aurel Rustoiu, and Mariana Egri, 31-58. Cluj-Napoca: Editura Mega.

Rustoiu Aurel. 2023. "Commentaria archaeologica et historica (VII) 1. Again about the location of the expedition of Aelius Catus and the displacement of the northern Danubian Getae to the south of the river. 2. The "Bastarnae" and the "Celts" from Transylvania in CA. 200 BC. Comments regarding the "burial" discovered at Iernut (Mureş county)". *Ephemeris Napocensis* XXXIII: 139–162.

Ursuṭiu, Adrian, Urák, Malvinka. 2019. "A late Iron Age timber walled construction from the middle Mureş valley". *Ephemeris Napocensis* 29: 165–176.

#### Rezumat:

Transilvania ca regiune distinctă este încadrată de o adevărată graniță naturală definită de Munții Carpați și este adesea folosită pentru a desemna întreaga regiune din interiorul lanțului muntos. Chiar dacă pare izolată, zona a fost de fapt întotdeauna conectată cu teritoriile din est și sud printr-o serie de trecători și văi care traversează Munții Carpați și care au fost folosite încă din preistorie. Transilvania este, de asemenea, legată de Marea Câmpie Ungară din vest, prin cursurile unor râuri. Mureșul și Someșul sunt cele mai importante și au fost folosite din preistorie până în epoca modernă. Aceste caracteristici geomorfologice au influențat evoluția culturală a societăților transilvănene de-a lungul epocii târzii a fierului. Din punct de vedere cultural și istoric, această perioadă este împărțită în două orizonturi distincte. Primul este "orizontul celtic" (între cca. 350 și 190/175 î.Hr.), care a fost orientat spre modelele culturale central-europene. Al doilea este "orizontul dacic" (între cca. 190/175 î.Hr. și 106 d.Hr.), orientat preponderent spre modelele nord-balcanice și mediteraneene. Intervalul cronologic în care se plasează sfârșitul orizontului celtic, precum și începutul celui dacic, este caracterizat de puține descoperiri, iar semnificația lor nu este uneori foarte clară. Printre aceste descoperiri se numără și câteva așezări cu nivel de locuire La Tène care conțin elemente cu perfecte analogii în cultura Poienești-Lucașeuca. Un detaliu important pentru înțelegerea semnificației prezenței materialelor respective în mediul transilvănean La Tène este oferit de cadrul geografic în care sunt semnalate descoperirile. Se poate observa că toate provin din situri situate pe valea Mureșul – cel mai important râu din întreaga zonă. Bazinul său hidrografic traversează Depresiunea Transilvaniei și este principala arteră în jurul căreia gravitează marea majoritate a așezărilor umane. În acest context, este necesar să subliniem rolul jucat de Mureș, ca principală legătură între Depresiunea Transilvaniei și zonele central-europene, coridorul larg și ușor accesibil realizat de acest râu facilitând comunicarea între cele două unități geomorfologice. Importanța sa pentru comerțul din antichitate a fost remarcată de numeroși istorici, dar și în scrierile unor autori antici precum Herodot și Strabon. Pornind de la aceste particularități, ne propunem să prezentăm stadiul cunoașterii unor descoperiri care pot fi considerate "exotice" în Transilvania la sfârșitul secolului al III-lea și începutul secolului al II-lea î.Hr., fiind vorba despre descoperirile de tip Poienești-Lucașeuca.

**Cuvinte-cheie**: Transilvania, La Tène, cultura Poienești-Lucașeuca; Bastarni; căi de comunicare; războinici, mobilitate.

#### Iosif Vasile FERENCZ,

Muzeul Civilizației Dacice și Romane, Deva, România

E-mail: fiosifvasile@gmail.com

ORCID No: https://orcid.org/0000-0001-9510-0052