A possible attack direction used by the Roman army during the Dacian Wars

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Abstract: A possible attack direction used by the Roman army during the Dacian Wars. The Dacian Wars present at this moment numerous unknown aspects, among these are the military operations of the Roman Army on the Lower and Middle basin of the Mureș Valley. The scholarly opinions on this matter are numerous, in regard to the advance directions, the troop composition, and the period in which the actions occurred - the first or the second war. The author brings into discussion another possible advance route towards the Mureș Valley, across the Lipovei Hills, on a via terrena road type, built and used during the Dacian - Roman Wars. The hypothesis is supported by the discovery of another possible roman road in 1977, which crosses in its turn the Lipovei Hills about 50 km to the east, at Bulci. Related to these events during the wars, the author presents a number of new fortifications at Bârzava, Neudorf and Secusigiu. The one from Secusigiu, judging by its size and analogies, might represent a temporary roman camp and could represent the first tangible proof of a Roman advance on the Mureș Valley during the Dacian Wars.

Key words: Dacian Wars, Pannonian expeditionary corps, via terrena, temporary camps, roman castra, Mureș Valley.

Introduction

It is a well-known fact that the Dacian Wars present at this moment numerous unknown aspects, and it is unlikely that these might be unraveled anytime soon (D. Benea 2006). Among these unknown aspects are the military operations of the Roman Army on the Lower and Middle basin of the Mureș Valley, from its convergence into Tisa up to the Şureanu Mountains, the heartlands of the Dacian Kingdom and the main conflict area. Previous researchers had try to answer the puzzling questions: did the Roman forces advanced from Pannonia or did they went downstream on the Mureș from the central conflict area, conquering the Dacian fortifications located near the river? Did the expeditionary corps from Pannonia that took part in both Dacian Wars (101-102 A.D. and 105-106 A.D) came indeed from the west, simultaneous with the Roman offensive in the south, or did this corps joined with the other Roman forces in Moesia Superior, the starting point of the campaign? And did the movements on the Mureș River happen in the first war or in the second war?

These questions have remained unanswered to this day, and in the archaeological literature, such issues are treated, because of the lack of any solid arguments so far, in phrases such as „unlikely”, "likely" or "very likely". In this paper, we will bring into discussion a series of new finds, discovered during field researches done in the last years in Arad County that might bring new light on the military operations of the Roman Army on the lower Mureș during the Dacian Wars.

The historiography of the problem

Among the historians and archaeologists that attempted to answer these questions were O. Răut and his collaborators (O. Răuț, O. Bozu, R.
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They claimed that the Roman Army advanced in the Second War towards the Transylvanian heartlands of the Dacian Kingdom using the Mureș Valley, arriving there on a road existing between Tibiscum and Bulci that might had been built for this purpose earlier, in the inter-war years.

L. Mărghităneanu (1978) believes that in the First Dacian war, we cannot speak of Roman forces attacking the Lower Mureș - they entered only its middle course, thus the numerous Dacian fortifications and settlement located downstream from the Simeria - Uroi area where not directly involved in the battles as the Roman Army concentrated its forces in assaulting the capital of the Dacian kingdom, Sarmizegetusa Regia. L. Mărghităneanu (1978) also believes that after the peace treaty of 102 A.D. the Romans did not occupy the valley of the great Transylvanian river, bringing as an argument the well-known passage found in the works of the ancient historian Dio Cassius that speaks about the Dacian king Decebalus retaking sometimes in the inter-war period, a land previously occupied by the Iazigi Sarmatians. According to L. Mărghităneanu (1978), only in the Second Dacian war, the Romans, together with their Iazigi allies have attacked the Mureș Valley coming upstream from the west. This scenario is considered much more plausible by the author then a hypothetical secondary expedition launched by the Romans from their war-quarters located in Tara Hațegului. Thus, in the Second Dacian war, Roman units advanced on the Mureș coming from the northern area of the Strei River, or through the Dobra pass. Once entered the valley, these troops might have engaged Dacian forces both upstream as well as downstream of their entry point. A. Diaconescu (1997), on the other hand, supposes that a Roman expeditionary corps might have entered on the Mureș Valley coming from Pannonia during the first war, getting as far as Apulum, that might had been the joining point of the various Roman expeditionary advancing in Dacia from different directions.

However, C. H. Oprăceanu (1996) considers that during the Second Dacian war, "very likely" an expeditionary corps coming from Pannonia went through the Tisa Plains and on the Mureș Valley, joining other Roman forces at Apulum. In its turn, D. Benea (2006) believes that it is necessary to analyses again other attack directions used by the Romans against Dacia. She admits as certain the fact that an expeditionary corps, formed from the armeys of the two provinces, Pannonia Superior and Inferior, totaling about 26 500 soldiers (Legio I Adiutrix and Legio XIII Gemina with other forces), advanced in the first war from Pannonia towards Transylvania. Its movement might have been made on two possible ways: on land, by transporting the troops to Lugio and from there, across the Pannonian Plains towards Parthiskon, after which they continued advancing upstream on Mureș; the second, considers an advance towards Dacia trough the using of rivers, on Danube, then on Tisa and after that on Mureș, upstream, until the plains to the north of Șureanu Mountains. She also believes that the dava from Pecica - „Șantul Mare” (identified by I. H. Crișan, 1978 with ancient Ziridava; newer opinions identify this dava with Ardeu - Cetățuie, see S. Forțiu, 2012) was destroyed during these operations. Also, in her opinion, the Roman expeditionary corps coming on Mureș might have participated in the Battle of Tapae, together with other forces - but the location of the Tapae is in her view not at the Iron Gates of Transylvania, but somewhere else (D. Benea, 2006).

About the possibility of an attack by a Roman expeditionary corps from Pannonia on the Mureș Valley, K. Strobel (1984) also wrote, but he considered such a road impracticable, due to natural conditions (K. Strobel, 1984; E. Nemeth, 2007). However, such a road had been in usage long before the Roman times (I. Ferenczi, 1974; E. Nemeth, 2007).

E. Nemeth (2007), speaking about the role of the Pannonian Roman expeditionary corps that participated in both wars, emphasizes the merits of the governor Q. Glitius Agricola that lead the corps composed of legionary vexillatio and auxiliary forces. These actions had taken place during the First Dacian war, while the offensive might had taken place simultaneously with the southern offensive. He cannot exclude the fact that this expeditionary forces might not have actually went towards Mureș, but towards Moesia Superior, to join the main column lead by Emperor Trajan himself.

Most researchers seem to agree about a possible Roman advance on the Mureș Valley from the Pannonia. A. Diaconescu (1997), D.
Benea (2006), E. Nemeth (2007) believe that this happened during the First War, while L. Mârghitan (1978) and C. Opreanu (1997) suppose a later date, during the Second war. Also, if A. Diaconescu (1997) and C. Opreanu (1997) suppose that the Roman advance was on the northern bank of the river, D. Benea (2006) supposes that such an advance was "likely on the southern bank".

Possible new attack directions

Any Roman advance from Pannonia towards the Mureș Valley could have had no less than two objectives: to eliminate all areas of Dacian resistance along the valley (fortresses and settlements); to reinforce the main Roman push into the Transylvanian heartlands of the Dacian Kingdom, during the Second Dacian War. Even if the Roman expeditionary corps might had advanced on the southern bank of Mureș River, opposing the Dacian fortifications that are all located on the northern shore (D. Benea 2006; A. Berzovan, C. Coatu, 2010), these should have been nevertheless eliminated (fig. 1).

The advance of the Roman army towards the Mureș River might have been done from multiple directions. In 1995, during field researches, a new dyke had been discovered on the first heights of the Lipovei Hills, at their contact with the Mureș meadows. It is located at about 2.4 km west from the town of Lipova, and 1.8 km south towards the current course of the Mureș, in the area named „Dâmbul Plumbilor” (GPS coordinates: 46°03′32.58″N, 21°40′06.02″E, elevation 155 m). It is well preserved and it appears as an embankment surrounded by two ditches. The western one has an opening of about 1.5 - 2 m, while the eastern one is smaller, only of about 1 m. The width of this embankment at its height is between 5, 5 -6 meters, while its current height is between 0, 80 m - 1 m. Its direction is N-S (fig. 2-3). The „dyke” continues at both ends - the northern one can be easily seen on satellite images is going another 23 meters, towards the meadows of Mureș, in front of the Cladova valley’s opening. The southern part goes towards the forest line, being severely damaged by agricultural works - it is also superimposed by a modern agricultural road. In the forest, we could not find it anymore.

We believe that this "dyke" was a part of the one mentioned by G. Teglás (1904) in the beginning of the XXth century on the Șiștarovăț Valley. This „dyke” stretched far to the south towards Banat, going towards Berzovia and even further (G. Teglás, 1904; L. Mărua, 2011). In our point of view, this „dyke”, including the sector described by G. Teglás (1904) had different functions than a simple linear defensive system or a demarcation line - it could have been a part of the communication roads built by the Romans in Dacia during the Dacian - Roman wars. Considering its shape and aspect, this "dyke" could in fact represent one of the simplest types of roads built by the Romans: via terrena (F. Fodorean, 2006). Off course, the idea of considering some of the dykes in the Banat as roads is not a new one. Grossly exaggerating, Kematmüller supposed that of the dykes were in fact Roman roads (M. Kematmüller, 1892).

There are a few more considerations to be made regarding this discovery. Between the northern end of the „Dâlma” dyke mentioned by G. Teglás (1904) and the southern part of the dyke we found at „Dâmbul Plumbilor”, there is a distance of about 2.5 km, where we could not find any traces of the dyke - it is possible, however, that it might had been destroyed in time, due to the three plantations and agricultural works that affected this parts of the Lipovei Hills. Anyway, a change of direction with 90° could be explained by an intention to finish the road in front of Cladova, where a Dacian fortification existed on the Cetâții Hill (M. Barbu 1996; P. Hügel, P. Hurezan, 1999). We belief that this likely road could have come from Berzovia, going across the Lipovei Hills and entering into the lower Mureș Valley. Our hypothesis says that the Romans have built this road at the end of the First War, or during the interwar period, in order to ease the access towards the southern banks of the River Mureș. A firm Roman control of the southern banks between Orăștie and Tisa was necessary in order to assure a solid starting base for attacking the rather numerous Dacian forts located on the northern bank (M. Barbu, 1996).

At the end of the First War, most scholars agree that the entire Banat region was occupied by the Romans (D. Benea, 1994; N. Gudea, 1997; C. Opreanu 1997, C. Opreanu, 1998; P. Hügel, 1999). It is admitted that the northern limit of the Roman advance during the First Dacian War is represented by the middle and lower course of

Fig. 2 - The "Dâlma" and the dyke from the "Dealul Plumbilor". Satellite image from Google Earth.
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Fig. 3 - The “dyke” from the Dealul Plumbilor

the Mureș River (N. Gudea, 1997; C. Opreanu, 1998). From our point of view, we agree that the northern limits was indeed the Mureș River and that the Romans stopped their advance on the southern bank, possibly due to a clause in the peace treaty signed between Emperor Trajan and king Decebalus. One of the arguments for this is a well-known passage from Dio Cassius related to the quick attack of Decebalus against the Iazigii Sarmatians that had occupied during the war a territory that was previously a part of the Dacian Kingdom (C. Petolescu, 2001). The territory in dispute seems to had been somewhere to the north-west of Mureș, maybe in Arad Plains and Crișana, not in the north-western Banat (C. Opreanu, 1997, C. Opreanu, 1998). In order to get his armies towards this territory, Decebalus had to go on the Mureș valley - however, if all the course of the river would had been under the control of the Romans, the Dacian king would had had to use different, more difficult pathways, that would have considerably slowed him down (for example, the valley of Crisul Alb).

Our hypothesis according to which the "dyke" from the Dâmbul Plumbilor and the "Dâlma" from Şiștarovăț represents a via terrena used by the Romans to enter the Mureș Valley seems to be supported by an indirect analogy located around 50 km to the east. O. Răuț and its collaborators (1977) mention the existence of an unknown Roman road - going from Tibiscum (Jupa), and then trough Râchita - Pădurariu - Bunea Mare (Timis County), passing through the Lipovei Hills and exiting on the southern banks of Mureș Valley, at Bulci (O. Răuț et.al. 1997; E. Nemeth, 2007). During 1977, we have discovered limestone plates in the structure of the modern county road 80, which connects the villages of Bulci and Ostrov, suggesting a possible re-utilization in modern times of an ancient Roman road. Also, to the north-west, satellite images show a possible trail of the same road (46°00'26.62"N, 22°06'00.77"E, elevation 143 m).

The construction of two roads coming from the main Roman road between Berzovia (C. C. Petolescu, 2001) and Tibiscum (Jupa), offered for the Roman army multiple ways to go towards the Mureș River, attacking key strategic points. It is not at all a coincidence that both roads stop in front of the two main concentrations of Dacian settlements and fortifications on the Mureș Valley: the western one, from "Dealul Plumbilor" stops in the area of Cladova - Dealul Cetății and an entire system of Dacian forts and settlements (A. Berzovan, C. Coatu 2010), while the eastern one from Bulci stops near the fortifications of Vârâdia de Mureș - Dealul Cetății and Sâvârșin - Dealul Cetățea (fig. 1).

If our hypotheses are correct, an important part in this works might have been undertaken by Legio IIII Flavia Felix (D. Benea, 1983). It is likely that during the inter-war period, the control of the southern banks of the Mureș might have not been permanent; its surveillance could have been made by small detachments coming from
Possible new Roman fortifications on the Lower Mureş

Considering the above scenarios, all of which suggest Roman troop movement across the Lower Mureş Valley, we might ask ourselves if there are any marching camps that might indicate such activities. In the Arad County, up to this moment, there was not a single fortification found that could have been, even loosely, attributed to this period and these events.

New light on this issue might be offered by the recent discoveries of a number of new fortifications on the Lower Mureş Valley in the years 1975-1995. The field researches where supplemented with thorough analyses of the satellite images provided by Google Earth. We will present the results of our studies.

We will start with the description of the fortifications found at Bârzava - Cimitir Ortodox 2, Arad County (fig. 4-6). To the north-west of the village, on a gentle hill slope oriented E-V, in and around the orthodox cemetery located to the west of the road Bârzava- Nadâş- Tauf, we have discovered three fortifications and two dykes.

The first of them was named conventionally F1 (fig. 6). It is situated to the north-west of the orthodox cemetery 2, at the following coordinates: 46°06'40.35”N; 21°58'55.60”E, at an elevation of about 167 m. It consists of an earth rampart and an outer ditch, having a trapezoidal shape and presenting rounded corners. Its dimensions are: 88 x 114 x 114 m, and it encloses a surface of about 1,3 ha. It is not well preserved: on the field, one can see well only its northern and eastern sides, while the southern one is less visible. The western side, near a river stream, was completely destroyed by landslides. Regarding the size of the fortifications elements, the external ditch presents an opening of about 2,5 m, while the vallum presents a width (at base) between 4,3-4,5 m. On the eastern side, one can clearly see an entrance gate.

In the interior of the fortification, more precisely in its south-eastern parts, there is a bizarre circular mound of about 10 meters, with archaeological materials that consists of small fragments of black, very course hand-made pottery (by any means, impossible to date – could be anything ranging from Prehistoric to Dacian or even Early Middle Ages) and burned adobe. On the satellite images, one might see also traces of other possible buildings inside the fortification.

The second fortification was named F2. It is located at only 30 m distance from F1, on the territory of the Orthodox Cemetery 2. It coordinates are: 46°06'38.78”N, respectively

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21°59'02.46"E, at a height of 182 m. It presents an earth vallum and an external ditch, having a rectangular shape with rounded corners. Its dimensions, based on what is left of it, are 194x106 m, covering a surface of around 2,05 ha. The fortress was badly preserved. The vallum, at its base, presents a width of around 4 m, while the ditches are clogged up, barely visible (with the exception of the one located in the north). The southern part goes for a short way in the forest, being mostly destroyed. The western part intersects the eastern part of the third fortification, F3. The planimetric details suggest the existence of two gates: one on the eastern side, one on the western side. In the interior of the fortification one can see groupings of smaller vallums, which fall perpendicularly on the southern side - it is uncertain whether these

![Fig. 4 - Bârzava – Orthodox Cemetery. General view on satellite images from Google Earth.](image)

are indeed ancient or had been, more likely, created in modern times. Anyway, such a situation was observed in the case of another fortification found in Arad county, that from Bodrogu Vechi – Grădiște (E. Pădurean, 1987). The satellite images seem to suggest more defensive elements: another vallum of about 24 m on the eastern side, and a possible vallum on the southern side, forming a large „U” shape.

The last of the fortifications of Bârzava, F3, is located to the west of F2, and seems to have been attached to it. It is located at 46°06'35.11"N, and 21°58'56.33"E, at an elevation of 163 m. It presents a vallum and an exterior ditch, having rounded corners. It covers a small surface, around 0.8 ha, having, probably, a rectangular size. Its dimensions seem to be around 90x90 m. On the field, it is not as clear as the others. The southern and western parts disappear into the forest and are hard to be seen on surface. We had found no traces of gates, and we cannot say much more due to the low degree of preservation.

In regard to the linear fortifications, the first one is located at about 28 m east from the south-eastern corner of the F2 fortress. It presents a vallum and a ditch oriented towards east. The vallum presents at the base a width between 4.5 - 5 m, while the ditch is between 2-2.5 m. The linear fortification had a length of about 240 m. A shorter, southern sector, of about 60 m we had seen to the south of the forests margin. This linear fortification is poorly conserved being visible only for a short distance. On satellite images, towards its northern end, one might see a bifurcation, for 60 meters, ending with a possible tower (?) of 10x10 meters. The second linear fortification is located 90 m east from the north-eastern corner of F1 fort (46°06'41.78"N, 21°59'02.67"E, elevation 184 m). It presents a vallum and a ditch oriented towards east. The
Fig. 5 - Bârzava – Orthodox Cemetery. The fortification system: 1. Mound with archaeological materials; 2. Perpendicular vallums in F2; 3. linear fortification; 4. Linear fortification; 5. Doubling of the linear fortification; 6. Possible tower (?).

Fig. 6 - The F1 fortification from Bârzava – Cimitirul Ortodox 2.
vallum has at its base a width of about 2, 5 m, and the ditch is 2 m width. The length of the vallum is 24 meters, and it is oriented N-S, protecting the area between two ravines.

In the south-eastern part of Neudorf, Arad county (fig. 7), is located another fortification we are going to present (more precisely, at 46°04'05.08”N, 21°37'28.49”E). The fortification presents a vallum and an exterior ditch, having a rectangular shape with rounded corners. Its size is about 93x115 m (?), closing an area of about 1, 3 ha. The fortress has been badly preserved, being easier to see on satellite images than on the field. The shortest southern part is covered by constructions of the former CAP Neudorf. Part of the vallum had been used by local people as a road. The size of the vallum at its base is between 5, 5- 6 m, while the ditch has an opening between 2, 5 - 3 m. Some details suggest the existence of gates on the northern and eastern sides that where better preserved.

The last fortification we will present is located at Secusigiu – Borconi (fig. 8), the Orthodox Cemetery, Arad County. Very likely, as numerous elements suggest, it might represent a Roman marching camp from the Dacian Wars. The fortification is located in the north-western parts of the town, at the contact between the high Vinga Plain and the low Mureș Valley (46°05'48.94”N, 20°58'40.54”E, elevation 96 m). It presents an earth vallum and an outer ditch. It has a trapezoidal shape, with rounded corners, having the following dimensions: 194x288x209x238, covering a surface of about 4,9 ha.

Its conservation status is good. The fortress is larger than the current cemetery. It is located on a terrain slightly leaning towards the Mureș Valley. The southern part is better visible, while to the north, parts of it are not that clear. The vallum has at its base about 5, 5 meter width, and the opening of the ditch has about 2, 8 m. The height of the vallum is 0, 60 m at the inside, and 1, 50 m at the outside - this difference might be explained by the fact that the duct of the vallum likely went on a higher bank of an ancient course (?) of the river Mureș (fig. 9). The northern side is composed of two segments united in an angle; it is possible that here might be located one of the gates. The southern gate might correspond with the modern aces road to the cemetery, that enter through an 3 m high embankment located exactly at the middle of th southern side. Two other gates, the eastern and western one, are located on the 69 meters long sides. An interesting detail might be given by the presence of 5 small ditches and vallums, located at 13, 5 m in front the supposed northern entrance, with a length of about 19-20 m. Other such things can be seen also near this gate. An interesting planimetric detail is represented by a vallum with a width of 5 meters, flattened, that goes towards the inside of the fortification. Other further details that can be seen on the field are hard to interpret. In regard to archaeological materials, there had been discovered a few handmade potshards in the vallum. Some of these can be dated roughly in the Dacian Kingdom`s period (1st century BC - 1st century AD).

It is also, worth to be noticed that near the emplacement of the fortification, at no more than a few dozen meters from its southern side, had been discovered a coin hoard consisting of Roman Republican Denarii (F. Medeleț, 1994; D. Bălănescu, 1999). The fortification is also near the Dacian settlements from Secusigiu – Dealul Domba, and about 5 km south from the dava of Pecica – „Șantul Mare” (I. H. Crișan, 1978).

Conclusions
The fortifications we have presented above are all presenting earth vallum’s and exterior ditches. The lack of representative archaeological material suggests that they had been used for a
Fig. 8 - Fortification at Secusigiu – Borconi. Satellite image from Google Earth.
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Fig. 9 - Secusigiu – Borconi. Field photographies.

short time. We cannot say that all of them are Roman, but there are chances that some of them might be. Only diggings might offer definite answers. It is true that these fortifications do not have large vallums, but smaller vallums such as here can also be found at many other Roman forts, such as that from Soporu de Sus, Satu Mare County (A. Matei, R. Gindele, 2001). The location of the presented fortifications is also suggestive: the defensive system from Bârzava has a very good view on the Mureș Valley, and is guarding the access on an important trail-road that crosses the Zarandului Mountains. The presence of a complex Roman marching castra, supplemented by linear defensive systems had been observed at Chitid, Hunedoara County (information received from E. S. Teodor and A. Berzovan).

The fortification from Neudorf, although small, has a shape specific to roman forts - it is very likely that it might be that "roman propugnaculum" mentioned in the late XIXth century by Márki Sándor (S. Márki, 1892), being located at about 900 m est to the most western dyke that traverses the Banat Region. Also at Neudorf, had been found an aureus coin from Augustus (M. Barbu, P. Hügel, 1993), or it is a well-known fact that the presence of such coins during the I\textsuperscript{st} century AD is related to presence of the Roman Army (R. Ardevan, 1993). In our turn, we had also published some early Roman materials found at Neudorf – Părăul Roșia (E. Păduraru, 2010). Thus, we believe there are some good arguments to suggest a Roman presence here.

The fortification from Secusigiu is the largest of all we presented and it represents very likely a roman marching castrum from the Dacian Wars. With its size, 4, 9 ha, matches the size of some Roman marching camps dated in the Dacian Wars like that from Vârful lui Pătru, for example (E. S. Teodor et.al., 2013), its shape having also numerous analogies in other Roman castra related to this conflict: Coasta lui Rus Mica from the Parâng Mountains, Ponorici - Dealul Robului
Fig. 10 - A comparison of sizes and shapes between Secusigiu – Borconi (Google Earth image) and Parâng – Coasta lui Rus Mică (ANCPI ortophotograms).

(D. Oltean, 2012; see also Fig. 10), Luncani - Târsa (E. S. Teodor et. al., 2013); a good analogy is found also in Roman Britain, at Twyn-i- Briddalt (E. S. Teodor et. al., 2013). If the fortification from Secusigiu is indeed a Roman marching castrum (as all evidences seem to suggest), it might be the first conclusive evidence of a Roman advance on the Mureș from the Pannonian Plains.

Even if some of the fortifications presented in this paper might turn out to be not Roman, but from other historical periods (I. Hațegan, 2005), they represent a gain for the scientifically repertoire of the Lower Mureș Valley.

* This paper is dedicated in the memory of our friend, Liviu Măruia, phd, expert archaeologist and lecturer at the West University of Timisoara, who recently passed away in a tragic accident.

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