

Felix Marcu

The Internal Planning
of Roman Forts of **Dacia**



Felix Marcu

**THE INTERNAL PLANNING
OF ROMAN FORTS
OF DACIA**

Ministry of Culture and National Patrimony
National History Museum of Transylvania

University "Babeş-Bolyai" of Cluj-Napoca
Centre for Roman Studies

BIBLIOTHECA MVSEI NAPOCENSIS ■ XXX

Felix Marcu

**THE INTERNAL PLANNING
OF ROMAN FORTS
OF DACIA**

MEGA Publishing House
Cluj-Napoca, 2009

English translation:
GABRIELA SAFTA

Drawings:
CRISTINA ȚOPAN, FELIX MARCU

Editing:
FELIX MARCU, CRISTINA ȚOPAN

Cover:
BLANCA-ALINA POP

© FELIX MARCU, 2009

Contact: felixmarcu2004@yahoo.com

ISBN 978-606-543-058-7

MEGA PUBLISHING HOUSE
Tel./Fax: 0264 439263
e-mail: mega@edituramega.ro
www.edituramega.ro

CONTENTS

Foreword / p. 7

Preface / p. 9

I. INTRODUCTION / p. 11

1. Terminology / p. 15
2. Method issues / p. 17
3. Sources / p. 18

II. DACIA POROLISSENSIS / p. 26

1. Bologa / p. 26
2. Buciumi / p. 36
3. Cășeu / p. 53
4. Gherla / p. 71
5. Gilău / p. 71
6. Ilișua / p. 79
7. Livezile / p. 86
8. Orheiul Bistriței / p. 86
9. Porolissum-Citera / p. 87
10. Porolissum-Pomet / p. 88
11. Românași / p. 101
12. Romita / p. 101
13. Sutor / p. 114
14. Tihău / p. 115
15. Turda / p. 116

III. DACIA SUPERIOR / p. 117

16. Brâncovenești / p. 118
17. Bumbști / p. 120
18. Călugăreni and Sărățeni / p. 121
19. Cătunele / p. 122
20. Cigmău / p. 122
21. Cristești / 128
22. Drobeta / p. 129
23. Inlăceni / p. 140
24. Mehadia / p. 142
25. Micia / p. 143
26. Odorheiul Secuiesc / p. 146
27. Olteni / p. 147
28. Orăștioara de Sus / p. 147
29. Pojejena / p. 150
30. Războieni / p. 152
31. Sânpaul / p. 155
32. Sighișoara / p. 155
33. Teregova / p. 155
34. Tibiscum / p. 160

35. Vărădia / p. 172
36. Vârtop / p. 174

IV. DACIA INFERIOR / p. 175

37. Albota / p. 177
38. Băneasa / p. 178
39. Bivolari (*Arutela*) / p. 178
40. Boița (*Caput Stenarum*) / p. 184
41. Boroșneul Mare / p. 185
42. Brețcu / p. 189
43. *Castranova* / p. 193
44. Căineni (*Pons Vetus*) / p. 193
45. Câmpulung-Jidova / p. 193
46. Cincșor / p. 198
47. Comalău / p. 200
48. Copăceni / p. 200
49. Enoșești (*Acidava*) / p. 201
50. Fâlfani / p. 201
51. Feldioara / p. 202
52. Ghioaca / p. 203
53. Gresia / p. 203
54. Hoghiz / p. 203
55. Ioneștii Govorei (*Pons Aluti*) / p. 208
56. Islaz-Verdea / p. 208
57. Lișteava / p. 208
58. Mofleni (*Pelendava*) / p. 209
59. Momotești / p. 209
60. Purcăreni / p. 209
61. Putineiu / p. 209
62. Racovița (*Praetorium*) / p. 209
63. Răcari / p. 213
64. Rădăcinești / p. 217
65. Râșnov (*Cumidava*) / p. 218
66. Romula / p. 224
67. Roșiorii de Vede / p. 225
68. Rucăr / p. 225
69. Sâmbotin (*Castra Traiana*) / p. 226
70. Săpata de Jos / p. 226
71. Slăveni / p. 227
72. Stolniceni (*Buridava*) / p. 237
73. Tia Mare / p. 238
74. Titești / p. 238
75. Urluieni / p. 240
76. Valea Urluii / p. 241
77. Voinești / p. 241

Bibliographic abbreviations / p. 242

Index / p. 257

Plates / p. 261

FOREWORD

Dacia was conquered, retained and finally, abandoned for strategic reasons. It was a military province and hence, the role of the army was decisive. And it was so from the very beginning. In each province, Roman authorities aimed at safeguarding the frontiers, the internal order guaranteed by the enforcement of the Roman law and the opportunity to recruit. Within a military province, army supply was essential. However, the complex and difficult to access limes of Dacia, would not make it easy from the Danube line. It was therefore necessary to create or, considering the demographic and political situation subsequent Dacian wars, bring all Roman structures that would be reinforced by the presence of the army. Felix Marcu analyses 71 Roman fortifications. Each of them had a civil settlement in close vicinity, where the soldiers' families and all elements involved by their pay gathered. The findspot of military diplomas confirms that the majority of veterans established, irrespective of their origin, close to the fort where they had served for around 25 years. The importance of the military element in Dacia is also suggested by the derivation of the word 'elderly = bătrân (ro.)' from veteranus.

Military archaeology is best represented among the interests of specialists dealing with the province of Dacia. Reasons are manifold—the desire to understand Roman units, weaponry and the province defence system, the meetings related to limes congresses, as well as the diversity of structures inside of a system enforcing similar rules. We would expect that the archaeology of the forts from Dacia be very advanced. However, this is far from the truth! Except for a small number of forts investigated commendably, data regarding the many other are incomplete, dubious or scattered in publications difficult to access. A paper that would gather the entire archaeological information was thus necessary. The deserving author of the present work proposed to present the Roman army from Dacia from the forts internal planning standpoint. It meant gathering and reconsidering all elements discovered within forts according to the general advance of the military archaeology. The gain consists not only in a better understanding of architectural structures. Often, the accurate dimensions of a fort and the

correct representation and location of the headquarters, commander's quarters, barracks or stables determine conclusions on the number and types of military units. For such reason, the units, their history and records in Dacia as well as their weaponry had to be thoroughly known. The success of the present approach is due to Felix Marcu's endeavour to discover the truth, to his experience in military archaeology and close contact, through libraries and specialists, with European knowledge. We face a rather complex work, demanding and useful for the provincial and military archaeology for which the author deserves warm gratitude and congratulations.

Professor IOAN PISO

PREFACE

Studies dedicated to Roman army and fortifications in Dacia are numerous. The aim of this research is to underline the features of building types found in Dacia and occasionally to attempt the recognition of the relation between the fortification and the military units garrisoned therein for certain time spans. I am far from resolving the many issues raised by the research of the forts' internal planning especially due to insufficient details regarding various building types. Future research shall undoubtedly bring more data, my conclusions being susceptible for errors.

For a better understanding of the situation in Dacia I tried to appeal most often, to archaeological research performed mainly in the forts from Britannia and Germania, provinces which benefited of ample digs during the last 100 years. The bibliography referring to the military aspect of such provinces is plenty and I had partial access following traineeships at Heidelberg and Cologne due to Socrates programmes and scholarships awarded by Thyssen, Humboldt and Soros foundations. I also profited of bibliographical aid following the visits made at Stuttgart upon the invitation of C. S. Sommer or the correspondence with N. Hodgson and M. Gschwind who made available to us part of their studies. Without such support, I would have never been able to revise bibliography impossible to access in Romania, nevertheless vital for drafting a PhD thesis. Additionally, in the last years, I benefited of short research periods with the library of the Institute for Classical Archaeology from Vienna, where I completed my study. The appreciation of the Roman military phenomenon was eased subsequent my participation to international congresses dedicated to the study of Roman borders, the so-called Roman Frontier Studies, where I made contact with many renowned scholars in the field.

Therefore, this book represents my PhD thesis defended in 2007 with the Faculty of History and Philosophy of the Babeş-Bolyai University of Cluj and supervised by Professor Ioan Piso, to whom I would like to thank for his entire support granted both professionally and personally. I also thank my PhD reviewers, M. Bărbulescu, C. C. Petolescu and D. Alicu, who made numerous valuable suggestions. Professor Ioan Piso has persistently guided me during the paper draft by facilitating access, through his excellent contacts, to the scientific environment. I had the honour and pleasure to participate in the development of a common scholarship awarded by the Thyssen and Humboldt foundations, studying in the same office of the Ancient History Institute from Cologne library for more than a month.

My interest for the military history of Dacia began as early as my first years as student when I took part in archaeological diggings carried out in the fort at Cășeiu and subsequently, for a short while, in the fort from Gilău, both coordinated by Professor Dan Isac. I would like to thank him for being the first who convinced me of the importance of the military archaeology and history of Dacia. Subsequent experience in the research of the forts from Dacia was gained following the digs in the fort at Teregova.

Thanks are also due to all archaeologists who made the research of forts from Romania possible, many of them publishing the results of their own exploration. Some of them made available to me results still novel at the time. Among count E. Nemeth (Cluj), Al. V. Matei (Zalău), C. Gaiu (Bistrița), S. Cociș (Cluj) and many others. Several conclusions were the result of discussions with Romanian and foreign archaeologists. Among the latter count C. S. Sommer (Stuttgart-München), G. Alföldy (Heidelberg), W. Eck (Köln), S. Ortisi (Köln) or Th. Fischer (Köln). Some of them provided me with accommodation and I would like to mention here especially C. S. Sommer and Susane and Heinrich Zabeckly.

For all omissions and errors in the text I am the only responsible.

I. INTRODUCTION AND STATE OF RESEARCH

The interest for the military aspect of Dacia is justifiable should we consider its chief nature of a province established for strategic reasons. The fact results basically from the classical authors' records, especially those in the western part of the Roman Empire, wherein Dacia is often mentioned and always within a military context. Additionally, the large number of the fortifications from Dacia indicates the foremost military character of the province, comparable to other border provinces of the Empire, in particular to Britannia. Thereafter, and due also to the level reached in the archaeological research of the forts from Britannia, such province or the fortifications in the province, were taken as model in my analysis.

However, is a fort theoretical model possible or impossible?

The German and English specialty literature make a clear terminological distinction between small-sized forts, common forts framed within the limits of 1.00 ha and described by Vegetius as auxiliary troops forts, vexillation forts and legionary fortresses. Thus, the German literature clearly differentiates between 'Numeruskastelle—Kleinkastelle', 'Kastella' and 'Lager', while the British literature distinguishes 'fortlets', 'forts' and 'fortresses'. Unfortunately, the Romanian specialty literature does not comprise a coherent distinction between various fort types. A fortification smaller than one hectare was usually considered too small for a fort to accommodate a regular troop, therefore was named *nationes* fortlet. In principle, should I limit myself to the term of real forts, one would suppose I am discussing only 1.00 ha forts, in other words, fortifications designed to quarter a full strength auxiliary unit. Nonetheless, latest research in the field, according to which entities are expressed in compact and clearly defined military units, is suggestive enough to make us extremely cautious when analysing the 'one fort = one auxiliary troop' pattern. Therefore, this study also considers forts under 1.00 ha in size, customarily catalogued as irregular troops' forts, since many are probably fortifications housing detachments of auxiliary troops, hence the buildings planning or at least the constructions layouts were in principle identical with those of auxiliary forts deemed to belong to complete auxiliary troops. This is precisely the case of Dacia Inferior, where the majority of fortifications were very small, although there is little evidence on the presence of *nationes* units. Besides, such small fortifications were not catalogued entirely as *nationes* forts, several being associated with auxiliary troops from the start, largely due to the discovery of tile stamps bearing the mark of certain troops.

The proposed research subject shall consider the forts and troops in the Roman province of Dacia. I shall particularly emphasize the presentation and analysis of the internal

planning of the fortifications from Dacia in the attempt to highlight peculiarities at provincial level, in other words, the fashion that Roman military architects applied in Dacia the architectonic standards used in the whole Roman Empire. Subsequently, the study of the auxiliary military units and their movements from one fort to the other shall represent, concurrently with the examination of the interior buildings, the basis of this work.

Romanian specialists' investigations on the troops in Dacia are more advanced, certain troop categories being analysed in ensemble¹. Although many of such studies are of unquestionable value, a general detailed analysis of the military troops in Dacia is still a goal. Studies of foreign famous scholars who drafted general works on the troops of the Roman Empire comprised occasionally the troops from Dacia (I refer to the works of Th. Mommsen, A. von Domaszewski, E. Ritterling, K. Cichorius, R. Cagnat, G. L. Cheesman, W. Wagner and, more recently, the important works of K. Kraft, G. Alföldi, H. G. Pflaum, J. Szilagy, W. Wagner, P. Southern, M. Reuter, etc.), however, due to the lack of knowledge of the Romanian bibliography in the field—the access of foreign researchers being hampered by the regional character of many Romanian publications—appreciations were not always accurate (like the case of J. Spaul's work, *Cohors*². BAR IS 841, 2000).

The state of research of the forts from Dacia is still incipient and moreover, the results of many archaeological digs performed remained unpublished. Part of the monographs on Roman forts drafted by Romanian archaeologists are of indisputable value², yet, together with the mini-monographs of the forts from Dacia Porolissensis—issued in 1997 on the occasion of 'Roman Frontier Studies XVII Zalău'—, continued in the same series with the study of D. Isac of 2003 regarding the fort at Cășeu, they provide fragmentary pictures on the military architecture in the province of Dacia. The single synthesis work referring to the forts in the aforementioned province consists in a short presentation of the state of research carried out in each fort (N. Gudea, *Der Dakische limes. Materialien zu seiner Geschichte*. JRGZ Mainz 44, 1–113).

Undoubtedly, Dacia, a strongly militarized frontier province, was an integral part of the Roman Empire. Both fortifications in Dacia and their similarities with other forts from the Empire may be highlighted only by specific analysis of all Roman forts archeologically investigated. In what Dacia is concerned, such a research, possible only by analogical method, is lacking.

¹ Like for instance the studies of D. Protase, *Troupes auxiliaires originaires des provinces germaniques dans l'armee de Dacie*. *Vestigia*, 1972, p. 543–5; N. Gudea, M. Zahariade, *Spanish Units in Roman Dacia*. *Arhiva Español de Arqueologia* 53, 1980, 61–76; I. Piso, *Les légions dans la province de Dacie*. In: *Les légions de Rome sous le Haut-Empire. Actes du Congrès de Lyon (17–19 septembre 1998)* (ed. Y. Le Bohec), Lyon, 2000, 205–25; C. C. Petolescu, *Auxilia Provinciae Daciae*, București, 2003, etc.), and monographs for other military units (the most important contributions of the type being, selectively, those of I. Glodariu, *Legio IIII Flavia Felix et la Dacie*. *Acta of the fifth Epigraphic Congress*, 1967, p. 327–36; H. Daicoviciu, *Legio I Adiutrix ou legio IV Flavia Felix*. *Hommage à Marcel Renard*, vol. 2, Bruxelles, 167–72; V. Wollmann, *Cohors I Cannanefatium in Dakien*, *Germania* 52, 1974, p. 150–1; N. Gudea, *Legio VII Gemina în Dacia*. *SCIV* 27/1, 1976, 109–14; N. Gudea, *Cohors I Ulpia Brittonum în Dacia*. *SCIV* 28/1, 1977, p. 129–35; D. Isac, *Die Ala Siliiana CR Torquata et Armillata in Dakien*. *AAASH* 35/1–2, 1983, p. 187–205; D. Isac, *Date noi cu privire la cohors II Britannica miliaria*. *AMP* 15, 1987, p. 175–80; N. Gudea, *Contribuții la istoria militară a Daciei romane. 4. Cohors VI Thracorum*. *AMP* 8, 1984, p. 219–25; D. Isac, D., F. Marcu, *Die Truppen im Kastell von Cășeu: cohors II Br(ittanorum) milliaria und cohors I Britannica milliaria c.R. equitata Antoniniana*. *Limes* 17 Zalău, 1999, p. 585–98; I. Piso, *L'ala Flavia en Dacie*. *AMN* 36/1, 1999, 81–90, etc.

² E. Chirilă, N. Gudea, V. Lucăcel, C. Pop, *Castrul roman de la Buciumi*, Cluj, 1972; M. Bărbulescu, *Din istoria militară a Daciei romane, Legiunea V Macedonica și castrul de la Potaissa*, Cluj, 1987; M. Macrea, N. Gudea, I. Moțu, *Praetorium. Castrul și așezarea romană de la Mehadia*, București, 1993.

Consequently the study takes into account the architecture of the buildings located inside the Roman forts of Dacia. Each building type inside the fortification shall be analysed in detail by gathering archaeological information and, additionally, by establishing existent analogies at the scale of the Roman Empire. Considering the character of such analysis, it is obvious that most adequate similarities may be detected in other border Roman provinces, like Britannia, Germania, Raetia, Noricum and Pannonia, where the military situation is generally comparable with that in Dacia.

Following the examination of the troops and buildings typology inside the forts, the level of Roman strategy and tactics and the way that military architects complied with the rules known in other parts of the Empire, are noticeable.

The research shall begin with sources analysis. Subsequently, each building type shall be investigated based on data mentioned for each fort by analysing their features, as follows:

Principia

Considering the construction character, it is obviously the best example of military Roman architecture implementation within provinces, hence the headquarters shall be the first building type analysed. The single synthesis study which took into consideration such construction types was written by mid 80's³, without comprising too many technical details. A typological analysis by comparing various headquarters layouts from Dacia with those in other areas is inexistent, hence the chronology of the first is lacking. Therefore, avoidance of analogies led to the failure of accurate understanding of certain rooms function inside the headquarters. Obviously, the establishment of the functionality of certain spaces inside this type of building may be also made consequent the analysis of the discovered archaeological material. Cases when the archaeological material was examined are however few (for instance Cășei, Slăveni, Buciumi or Jidova). I shall emphasize the architectonical data on this building in the attempt to identify its characteristics at provincial level. To this end, I shall carry out an initial detailed analysis of building sizes by underlining existent geometrical ratios—between various parts of the building or between the building and forts sizes—and, additionally, I shall attempt to identify the constructional techniques. Since the fort is repeatedly enlarged, the headquarters building shall be rebuilt with little change on the place it functioned during previous stages. Existent inconsistencies regarding the ratio between the dimensions of structures of the type and the general sizes of the fort result precisely from here, since many of the stone buildings occupy much reduced surfaces inside the fort. This fact is significant as the building in the stone phase does not always overlap the building in the timber phase, obviously firstly because the troop erecting the fort during Trajan reign is usually replaced by the beginning of Hadrian's reign subsequent changes in the military strategy. The sequence of the headquarters construction phases was studied formally as well and since it was stone-erected at some point, few were the researchers who examined previous phases. Where such examinations were performed (Gilău, Cășei, *Porolissum*, etc.), at least three construction and repair stages could be identified, the first stage building being almost always erected in timber. The construction technique of such building was never considered, although it would have been interesting to know to which extent the technological standards were complied with and if the construction method mirrored certain military unit—like in the fort at Chesterholm,

³ I. Stanciu, *Considerații asupra clădirii comandamentului (principia) castrelor din Dacia*. AMP 9, 1985, 219–46.

Britannia, where a special construction technique specific only to west Mediterranean regions, known as *opus africanum* was used.

Praetorium

To the extent Dacia is concerned, there is only one synthesis study dedicated to the private house of the troop commander⁴. Once more, the clear establishment of the constructional phases, the building typological analysis and a careful study of the used construction technique are still required. Subsequently, upon the establishment of analogies with western provinces of the Roman Empire, I shall acquire much more data referring to the character of areas within such *praetoria*, many of them later additions. In some of the forts from Dacia, like that from Porolissum-Pomet, buildings with an inner courtyard flanked by rooms, sometimes interpreted as *praetoria* also appear. However, only subsequent analysis of the archaeological material discovered therein and comparison with similar situations in the Empire, would establish the existence of two *praetoria* inside a fort.

Horreum

In this stage, it would be interesting to learn to which area of the Roman Empire several *horrea* from Dacia corresponded, being recognized that certain characteristics of this building type are detectable at provincial level. This is the case of differences between storage buildings from Britannia and Germania, as with the first, the length/ width ratio is approximately 3:1, while with the other it is 2:1. In Dacia's case, only one study on the matter was issued in the 80's⁵, although archaeological excavations in certain *horrea* continued or were resumed. A detailed analysis of each architectural element is furthermore important and it should firstly address the constructional methods, relevant since—in Dacia—the examination of such building early stages was almost always 'bypassed', especially due to its timber construction. In addition, the inspection of storehouses proportions and sizes was frequently avoided instead of emphasized, as they might mirror aspects of military provincial strategy.

Barracks and stables

Unfortunately the buildings accommodating the soldiers and/or horses are less known in Dacia due to the fact that in general, archaeological diggings of the last century targeted mainly monumental stone and less timber and wattle-and-daub structures. Timber and wattle-and-daub were the regular materials for such buildings type. Hence, for the lack of accurate archaeological information, the comparative study of the barracks from Dacia with other constructions of the type from the Roman Empire is essential for the completion of the available partial image. The full collection of information regarding the barracks is essential especially because it was never carried out at Dacia's level. Thus, the restoration of barracks layouts was most often erroneous. In this sense, the striking resemblance of certain barrack types from the fort at Buciumi (*Dacia Porolissensis*) for instance, with some barracks in forts from *Britannia* (Birrens, Balmuildy (?), Ardoch, Cardean and Ravenglass) is obvious. They are barracks with a central corridor and it is interesting that in the case of the fort from Dacia, two of the barracks are even adjacent. The importance of such superstructures, their dimensional features and constructional methods is apparent, certain being the most representative

⁴ D. Isac, P. Hügél, D. Andreica, *Praetoria in Dakischen Militäranlagen*, SJ 47, 1994, 40–64.

⁵ L. Petculescu, *Roman Military Granaries in Dacia*, SJ 43, 1987.

military constructions. The analysis and availability of complete information regarding the barracks and stables from Dacia is, as mentioned, essential for a military history of Dacia and it would additionally constitute an important element in the clarification of numerous issues related to living areas inside forts of the Roman Empire in its ensemble.

Beside the most important military architectonic structures mentioned above, I shall also take into consideration buildings less known inside a fort like workshops, other types of storage rooms, hospitals or the constructions in the enclosure area. Moreover, I shall analyse possible special buildings inside forts from Dacia, like *scholae* or temples.

Concerning Dacia, a study investigating such structures is missing due mainly to difficulties in their identification, as within auxiliary forts, they have no generally valid layout. A building which is, for instance, of the type provided with a central courtyard flanked on two or more sides by rooms may function as *fabrica*, storehouse or hospital. On the other hand, a building of *basilica* type may also function as *fabrica*, storehouse, '*basilica exercitatoria*', stable, etc. In principle, such constructions differentiate upon constructional details and the archaeological material discovered therein, as proven by the *basilica* type building located in *praetentura sinistra* of the fort at Buciumi. It is identical in plan with the so-called *basilica exercitatoria* from the fort at Birdoswald, yet following the discovery of a pavement, several kilns and other crafting tools it was deemed *fabrica*.

Finally, I believe that the forts model from Dacia comprises peculiarities that could play an important role in the study of the forts at the scale of the entire Roman Empire.

The military character of the province of Dacia, located by the borders of the Roman Empire, partially results from literary and epigraphic sources and less from archaeological evidence. The present research of the troops and forts from Dacia in their ensemble would allow us to accurately observe the way that the provincial military life unfolded and the actual amplexness of a system implementation.

Therefore, methodological impediments represented by both informational and archaeological excavations quality, which although systematic, persistently corresponded to 'trial-trenches', together with the lack of specialty foreign literature awareness mirrored by faulty reconstructions of building plans, render any research suppositional. However, even though the results of archaeological excavations are superficially presented, a subsequent careful analysis and obviously, examination of similar cases (troops and forts) from western provinces where research was and is performed at different levels, would allow for the draft of a detailed synthesis of aspects related to the architecture of the buildings inside the forts.

1. Terminology

Generally, in Antiquity the fortifications both legionary and those occupied by *numeri* or auxiliary troops were designated *castra*. The distinction between the '*auxiliary fort*' and '*fortress*' is usually made, except for a few authors who name the auxiliary fort *castellum*⁶. It would be rather beneficial that Romanian specialists would specify terms more clearly, although a term for each construction type is rather difficult to imagine.

Speaking about *civitas* and *castrum*, especially as terms designating civil facts of late Roman antiquity, P. Kovács reminds the confusion made by even classical authors when referencing to *civitas*, *urbs*, *oppidum* and *municipium*⁷. The end of the process is visible with

⁶ See for instance Cătănciu 1997, *passim*.

⁷ Kovács 2002, *passim*.

the geographer from Ravenna or Ammianus who mention a series of settlements (including auxiliary forts or sites on roads) as *civitates*⁸. Hence it results that most probably, subsequent *constitutio Antoniniana*, the legal difference between these settlement types disappeared, each having a *territorium* with a centre similar to a town. The term *castrum* appears in late Antiquity to describe a new type of settlement emerged in the west. Yet initially, *castrum* was used almost exclusively related to military activities⁹, much more often than *castellum*¹⁰. It is very difficult to distinguish between civil and military *castra*, as *civitas* and *castra* (in military sense) were often mentioned jointly¹¹. Another difficulty would consist in the fact that abandoned forts, subsequently used by civilians, were later on also named *civitas* or *πόλις*, thus becoming toponyms (*Castro ultra mare...*, *civitas Castra Herculis*). Yet the issue of the emergence of such civil *castra* and their relation with *civitates* remains unresolved.

Vegetius, also writing in a later period, does not make a clear terminological distinction between civil and military settlements or between *castella* and *castra* either, advocating that the first are named after *castra*¹². It is very probable that both terms would be used to designate a fortified place, either civil or military.

Castellum would be used, starting with the Republic, in civil sense together with the military meaning (*castrum*). The term is even more ambiguous, in the late period being used (*castella*) still in relation to the civilians, although initially it was similar to that of *castra*. On the other hand, there are examples when civil *castella* may be named *castra* (CIL 21835 = ILS 6021). In fact, the term *castrum* appears in late Antiquity, especially in *Notitia Galliarum* as a civilian settlement. This term seems to be related to bishops. *Castellum* is, also, often used instead of *vicus* in Codices.

There are, undoubtedly, a series of uncertainties. Three solutions are proposed and the one of interest for us states that the fortification of a garrison from a city may be named *castra*, *castra equitum singularium*, *praetoria*, *peregrina*, *urbana*, *Misenatum* or *Ravennatum*. Hence, the settlement could be called *castrum* according to the fortification inside alike *pars pro toto*¹³. Nevertheless, when the term *castrum* is mentioned, we deal with a military presence, irrespective of its nature¹⁴.

Therefore, the fort term, designating a military fortification is correctly used, *castellum* being also accurate, though *castrum* and *castellum* may indicate including a civilian settlement, while the latter is most often used to this end. During the imperial period, the

⁸ The term generally designated an autonomous community which held a *territorium* comprising all citizens of that community, see details and bibliography in Kovács 2002, 169 sqq.

⁹ For the majority of evidences on the term *castrum* in ancient sources or the Vindolanda tablets see: <http://www.perseus.tufts.edu/cgi-bin/vor?lookup=castrum&lang=la&group=bilevel> or *TabVindol I-IV*.

¹⁰ See <http://www.perseus.tufts.edu/cgi-bin/vor?target=la%2C1&collection=Any&lookup=castellum&formentry=1&template=&.submit=Search&searchText=&alts=1&extern=1&group=bilevel&.cgifields=alts&.cgifields=group&.cgifields=extern&.cgifields=type>.

¹¹ Kovács 2002, 172.

¹² *Vegetius* 3, 8.

¹³ Acc. to Kovács 2002, 179 where a few examples of civilian settlements housing garrisons are also given, mentioned in *Not. Dig.*: *Cabillonum*, *Matisco*, *Ebrodunum*.

¹⁴ Speaking again about late Antiquity, P. Kovács proposes three options: the civilian population moves inside the fort like at Argentorate or Abrittus, a new fortification is built around the civilian settlement, for e.g. Mogontiacum or *Castrum* includes the military fortification and the settlement as well or only part of it like the case at Novae, Kovács 2002, 179.

terms *castrum*, *castra* or *castrorum* officially referred to a military fortification¹⁵. The Latins designated fortifications with a single term without taking into account their sizes. Undoubtedly, the inscriptions assign the term *castra* to all fortifications, not only to legionary ones. Even the smaller-sized are nominated by this term, like the case from Dacia: *castra numeri burgariorum et veredariorum* (CIL III, 13796 = ILS 9180 = IDR II 588).

2. Method issues

My approach encountered numerous difficulties and some were related to method. How should we handle such a subject considering the apparent huge amount of information? Hence, for homogeneity of presentation, each fort in Dacia shall be analysed in detail, leaving aside insignificant information in order to attain a unitary form, hopefully efficient and suggestive. I shall carry out the analysis of each building type in the near future, within a second part of the book.

There are however a few issues, which must be addressed. Who decided the form and structure of the building? Who participated in its construction? Who dwells the building upon completion? How stereotyped was the entire architecture of a structure? On what depended the appropriation of spaces and building sizes? It is rather difficult to answer all these questions, especially since epigraphic evidence is almost absent.

From the very beginning I wondered on what rested the division of a fort? This element may be identified only where at least main roads and streets are known. At Bologna for instance, some characteristics may be observed and a longitudinal two-fold division of the fort is possible. However, the fort gridding based on road network, although occasionally unusual or imprecise may be the result of poor land survey training only. More important, without a doubt, are the buildings, each with their peculiarities. Even nowadays there are archaeologists who in order to define the military strength in a fort take into consideration only the fortification general dimensions. Yet, this argument is inoperable since most often an enclosed space is not similarly used for accommodating soldiers, industrial activities or goods storage, etc. Everything depends on the function of that specific fort and the troop type that constituted its initial garrison. Thus, where the entire fort was excavated, the existence of spaces free of any construction was proven. The fort at South Shields occupies a surface comparable to that of a *coh. Quingenaria* fort, yet the internal buildings show that its primary role was that of supply base, the garrison being much reduced.

We should not forget that, often, the garrison of the fort changes thus affecting the entire fort structure and interior buildings. Such realities may be detected in several forts from the beginning of Hadrian's reign when certain cohorts are replaced by *alae*, like the case of Gilău or the fort at Ilișua. It is yet even more difficult to trace garrison changes when two similar troops are succeeding, like at Cășei: *coh. I Britannica* replacing *coh. II Britannorum*. Even though starting with Antoninus Pius and Marcus Aurelius, troops tend to remain established in their forts, the internal buildings structure is still susceptible to change.

Undoubtedly, the study of the internal planning of a fort in order to pinpoint Roman strategy and army in general is useless for lack of other evidence. In order to understand the structure of the Roman military system it is obviously necessary to analyse the troops' organization and movements, first of all for establishing the permanence of certain troops in

¹⁵ Yet *castra* may also designate a civilian *castellum* (CIL VIII 21351 = ILS 6021), *castellum Lucullanum* being mentioned for instance as being *castrum Lucullanum*, see Kovács 2002, 175.

various forts. This would be difficult to prove for several reasons. Firstly, the often lack of inscriptions or even of stamped bricks make us almost always be cautious regarding the fort garrison. On the other hand, even their presence prevents us be categorical, since they are not peremptory evidence on the fort garrison.

Subsequently, most valuable information may be found following the examination of individual buildings. Yet their sizes only are not sufficient and may be irrelevant since a barrack may comprise 10 or 5 *contubernia* of various sizes and within the same fort with adjoining barracks, the officers' quarters may be completely different. Only the detailed analysis of the buildings may produce relevant effects for the entire fort radiogram. The supposition that the barracks of infantry cohorts consist each of 10 *contubernia* and those of *equitatae* troops of 8 *contubernia* is usually false. It is based on the premises overtaken from Hyginus that a tent is occupied by 8 soldiers. Yet the barracks from Gilău for instance comprise 8 *contubernia*, those at Ilișua 8 in *praetentura sinistra* and 10 in *praetentura dextra*, the barracks from Cășei 12 *contubernia* or those from Drobeta certain 5, while other, 10 *contubernia*¹⁶. As such, it is impossible to establish building and even less fort types.

Consequently, the surface occupied by forts represents a further more irrelevant argument, since there are no type-forts, each fortification having its own peculiarities. Or, as found in Vegetius, a fortification is constructed depending on the number of soldiers and beasts of burden (Vegetius 1.22) existent at the time of the fort construction, while the land where the fortification is located determines the fort shape (Vegetius 3.8). Most problematic is obviously the identification of troop strength at that moment.

Moreover, the function of the buildings inside the fort is difficult to establish. Another big issue in the fort analysis is the chronology, for those in Dacia being necessary to consider the interval of almost two centuries of existence of the province, a long enough time span when changes in the army structure and implicitly the internal planning of the forts definitely took place. For lack of ample archaeological digs the fact is unfortunately difficult to ascertain.

We operate only with sizes, in most fortunate cases, the sizes of building rooms, whilst due to excavations quality, the possibility of a more detailed analysis is impossible.

I often analyse details related to the enclosure, although the thesis title does not entail such investigation, as it may be relevant for the building planning inside the fort since certain forts with buttresses on the inside part of the enclosure indicate occasionally, like the case from Arutela, that the area was used for storage or metallurgical activities. In general, I shall not analyse the enclosure issue, which is often irrelevant even for chronology. Its dating upon the towers shape is most often relative. Only the towers with semi-circular projection may be eventually characteristic starting with the end of the 2nd or the beginning of the 3rd centuries AD, however, the chronological relation between the enclosure and inner buildings is difficult to prove, should any exist.

In the case of each fort, inscriptions were mentioned only when relevant for constructional changes within the fort or when they had significance for troops' displacement.

3. Sources

There is a mosaic of sources regarding the Roman army in general and their selection was difficult especially due to the chronological interval of at least three centuries that they

¹⁶ Occasionally, the reconstructions of especially the barracks made by the excavators are based on conjecture arguments by overestimating the efficiency of long, yet very narrow trenches; therefore the number of rooms inside the barracks are known only with few forts.

cover. Only a few ancient authors make reference to the fort in general and, usually, only tangentially in the description of the proper army. Theoretically, the shape and internal planning of the forts is debated in certain sources, especially in Polybius, Hyginus and Vegetius being relatively clear, while archaeology would confirm sources indications. It actually happened during the 19th and 20th centuries, yet beginning with the last century, once the archaeological analysis became more detailed, things proved much more complex. Confirmation of such complexity is not probably found in sources, precisely because where the internal planning of a fort is described, it references legionary fortifications and, essential fact, only when such troops are campaigning.

I shall briefly enumerate the classical authors providing information related to the army and finally, those mentioned by *Corpus Agrimensorum Romanorum*.

Polybius, a Greek author who also served as cavalry commander in his area of origin, provides one the most complete writings on the Republican army, referring probably to the period after Hannibal and describing a consular army fort¹⁷. Briefly, we find that the soldiers were recruited from men between 17 and 46 years old, serving for six years, interval when they fought when necessary, being further available for another 16 years. Thus, each legion comprised up to 5000 men and approximately 300 horsemen. The internal planning of the campaign fort, of two legions together with their allies, is clearly established irrespective of land configuration, the shape being square¹⁸. It is decided where the consul and the tribunes tents would be erected and also, on which side would the soldiers tents be placed. Then the location of the headquarters, called here *praetorium*, is established. Subsequently, the future roads are marked with spears. The consul's tent would be positioned where best suited for giving orders and monitoring the area, therefore at equal distance from its sides¹⁹.

Appian provides a short discussion regarding the tactics used by Pompei at Pharsalus describing Caesar's criticism regarding them²⁰.

Flavius Josephus, a Jewish priest of aristocratic origin was chosen to defend Galilee during the Jewish uprising from AD 66. He was captured, then befriended Vespasian, at the time, commander and subsequently, after AD 69 became one of his favourites as the latter turned emperor. Within the context of the Jewish rebellion description, he mentions in admiration the Roman army organization, its discipline and finally concludes that nothing was left to random. He mentions, alike Polybius, the rectangular shape of the fortifications (*Bell. Iud.* III, 5).

Frontinus (AD 40–103) was a *praetor* in AD 70, then consul (AD 73 ?, AD 98 and 100) and five years later was sent in Britannia to replace governor Petilius Cerealis, in AD 78 being replaced by Agricola²¹. In AD 90 he was appointed *curator aquarum* at Rome, an office reserved for important people, having obviously excellent administrative skills. He drafts *De aquis urbis Romae* in two books, comprising the history and description of Rome's water supply with numerous details on the Roman legislation and architecture. Frontinus is the only Latin author of late imperial period whose military treaties were preserved, at least partly. The

¹⁷ For references in Polybius see previous bibliography, Marquart 1884; Oxé 1909; Stolle 1912, 52–68; Fischer 1914; Schulten 1929, 119–126; Fabricius 1932, 78–87.

¹⁸ The fort description is made in book VI, chapters 27–31 and in VI, 32 where changes that need to be done when several troops or a larger number of allies are camped within the fort are described.

¹⁹ Polybius claims that the right distance from each of the sides is of 100 feet, Polybius VI, 27.

²⁰ *Appian*, BC II, 79; after *Caesar*, BC III, 92–3. See also Keepie 1984, 108–9.

²¹ See Campbell 1987, 14.

theoretical treaty *De re militari* would have been of interest for us, as Frontinus describes numerous military aspects of the Roman army, yet it is unfortunately lost. The single reference preserved is that from *Stratagemata* of which book iii is important, a collection of examples from the history of Rome's and Greece's military strategy for the use of officers and book iv which emphasizes the military discipline and moral aspects of the war, in general being listed a series of maxims referring to the art of becoming a general²². His ideas on the military training focused on the knowledge of past examples. Concisely, the author believed that military tactics and strategies changed very little, hence same measures taken by previous generals were applicable at any time. Evidently, a general also needed, beside such knowledge, to be aware on how to manoeuvre the troops. Strategies are divided in three parts: prior the battle, during the battle and the situation after the battle and the siege. It is practically a book of allegories and aphorisms. Additionally, alike other classical authors he makes reference especially to situations of crises.

In the first three books of *Stratagemata*, the author makes available for commanders, past examples regarding certain tasks which Frontinus considered important²³.

In the few paragraphs where Frontinus refers to forts expressly, he describes the origin of Roman fortifications by making reference to Pyrrhus, king of Epirus, as being the first who succeeded to gather an entire army inside an enclosure (*Frontinus* IV, 1), idea and plan overtaken by the Romans after they defeated the king. Noteworthy, in Frontinus vision, the Romans used to erect their forts as groups of Punic huts until that point, the troops being distributed upon cohorts, only the cities being fortified (*Frontinus* IV.1.14).

Hyginus. Drafts *De munitionibus castrorum*, an important manual written during Trajan (?)²⁴ or Marcus Aurelius²⁵ reigns, referring firstly to the planning of a fortification for a

²² It is believed that this book was written by a different author, yet subsequent evidence highlighted the possible authenticity of book iv, see Campbell 1987, n. 10. Parts of a treaty referring to the Roman topography assigned also to Frontinus are kept in the edition of Blume, Lachmann, Rudorff 1848.

²³ In such cases, B. Campbell asserts the high resemblance with Onasander and Polyaeus, Campbell 1987, 15. Polyaeus was a Greek lawyer, rhetorician, who wrote a collection of eight books on strategy during Marcus Aurelius and Lucius Verus reigns, referring to examples up to the Hellenistic period—especially of Greek history—and a few on the Roman Republic, employing Suetonius and Appianus, Campbell 1987, 15–6. Thus, book I teaches the generals to protect their marching army and how to prepare against ambushes (i, iv, v, vi), discover the enemy's plans and hide their weaknesses (i, ii, vii), how to distract the enemy's attention (viii), support the troops morals (ix–xii), decide on which conflict type to engage (iii). Book II shows the generals how to fight under adequate circumstances (i, ii), position their troops (iii), make use of ambushes (iv, v), maintain the troops moral (vii, viii), avoid forcing the soldiers to fight in desperate conditions (vi), end the campaign (ix), cover their losses and retreat (x, xiii), protect their position and defend the fort (xi, xii). The third book shows how to press the adversary and encourage treason among their rows (iii, iv, v, vii, viii), force the besieged to come out (x, xi) and use surprise factor (i, ii, vi, ix), protect the besieged troops by ensuring food and human reserves (xiv), how to maintain the morals (xii, xvi), use and maintain communications (xiii), how to fool the enemy concerning your supplies (xv), etc.

²⁴ Domaszewski 1887, Lenoir 1979, 111–33. For its dating see also Southern 1989, 87, n. 53 with references or Roth 1994, 351, while for the fort description see comments in Oxé 1939, *passim*.

²⁵ E. Birley stated that *Hyginus* was writing during the Danubian wars of Marcus Aurelius, as consequence of the emperor's, consistent part of praetorian guard and graetorian prefect's presence on the battle field, Birley 1966, 57. Opinion confirmed by S. S. Frere using an inscription from Numidia which renders the extraordinary command of M. Valerius Maximianus during Marcus Aurelius reign, commanding vexilations of the praetorian fleet from Misenum, Ravenna and Britannia, plus the African and Moor cavalries, the same troops mentioned by *Hyginus* in the list of expeditionary forces (*Hyginus* 29–30), Frere 1980, 54. Nevertheless, similar expeditionary forces were also used in the Danube area during

hypothetical army. It was probably erroneously attributed to Hyginus²⁶. The introduction which probably would have described the aim of the paper, is lost, the rest of the book being divided in three parts: chapter 1–21 on general principles of army organization and its place in a fort, chapter 22 makes a summary and a short introduction for the following chapter after which chapters 23–44 emphasize the fort measurements while, finally, chapters 48–58 describe the fortification defence. The text is occasionally corrupted nonetheless, it represents the most important available source on the internal planning of the forts. However, if attempting to find confirmation of the plans described therein, caution is required, since although the description is meticulous, it seems to refer to campaign forts.

According to the author, the fort must be divided in three parts, having a precinct of 2400 feet in length and 1600 feet in width (*Hyginus* 21). Thus, trumpets must be heard in each part of the fort: *si longiora fuerint, classica dicentur nec bucinum in tumultu ad portam decimanam facile potuerit exaudiri*.

Aelianus. Addresses to an emperor, probably Trajan, by analysing the technical details and the organization of the Greek phalanx²⁷. Although he does not seem important for the study of the Roman army, Frontinus interest for this author may suggest the relevance of some of his ideas²⁸.

Arrianus, a Greek senator from Bithynia, was in c. 132 *legatus Augusti pro praetore* of Cappadocia, dealing with the Alan invasion²⁹. In *Tactica* Arrianus analyses the weaponry and equipment (3–4), types of units involved (5–10), distribution of the troops in battle (11–19), battle manoeuvres (20–27), marching formation (28–30) and the art of relaying orders (31–2). His importance and novelty consists, firstly, in the description of populations with different fight technique, heavy cavalry and archers among which the Alans, the Sarmatians and the Parthians. In the second part, he describes cavalry tactics and training (33–44)³⁰.

In *Ectaxis contra Alanos* Arrianus describes battle tactics and military disposition in the fight against the Alans³¹.

Publius Tarrutienus Paternus³² was the first author to describe military legions, becoming *praefectus praetorio* under Marcus Aurelius and Commodus³³, while Vegetius (I.8) referred to him as *Paternus diligentissimus iuris militaris assertor*. He is one of the only classical authors mentioning part of the *immunes* in his first book.

Domitian or Trajan. The main argument referring to Hyginus's dating, states S. S. Frere, would consist in the confirmation of the existence of those *alae milliariae*, four of them being included in the expeditionary force described by *Hyginus*, at the same time with *milliariae* cohorts from the legion components, since *Hyginus* argues that they had to be reserved a double space inside the fort (*Hyginus* 27), Frere 1980, 54. Consequently, a solution would be the identification of the existence period of the double cohort in the legion components and on the other hand, of the *alae milliariae*. The first seem to be characteristic to the period of the second half of the 1st century AD, while the latter do not emerge sooner than AD 81 (after Birley 1966). Hence, these two troop types do not seem to be contemporary.

²⁶ We do not know precisely either if he is the author or the original title of the paper since the beginning and ending are lost, see Lenoir 1979, *passim*. For *Hyginus*'s description as a beginner in writing or topography see Domaszewski 1887, 40; Oxé 1939, 65–72.

²⁷ Dain 1946.

²⁸ See Campbell 1987, 17.

²⁹ Kiechle 1965; Bosworth 1977; Bosworth 1980; Brunt 1976; Campbell 1987, 18.

³⁰ Kiechle 1965, 87; Dixon, Southern 1992.

³¹ Ruscu, Ruscu 1996; Saxtorph, Tortzen 2002, *passim*.

³² The correct name appears in AE 1971, 534. Regarding this author see details in Giuffrè 1974, 61–5.

³³ He was killed upon Commodus order, see Brand 1968, 125.

Cassius Dio refers around AD 49 to certain conflicts from the second half of the 1st century AD, with a few remarks on measures taken by Caesar regarding soldiers and their pay, on *testudines*, and mentions only once the term *castrum*, without giving further details.

Iulius Africanus mentioned also during the 3rd century AD the existence of extended fortifications³⁴.

Vegetius writes *Epitoma Rei militaris* during the second half of the 4th century AD³⁵, his work representing a compilation based on several sources, without considering their chronology³⁶. The manual is dedicated to an emperor, the researchers' controversies being centred on Theodosius I (AD 379–395)³⁷ and Valentinian III (AD 425–455). It is certain that Vegetius writes in the western part of the Empire, as he is mentioned by Gratianus. Vegetius is an 'old fashioned' writer focusing especially on the description of the features of the 2nd–3rd centuries AD forts without taking into account, seemingly, the changes in the army structure made by Diocletian and Constantine. He emphasizes the maintenance of discipline and morals for war preparation, the vigilance in the enemy territory, fort planning, detailed campaign planning, tactical manoeuvres in various situations, how to allow a defeated adversary to retreat, retreat planning and strategies. The work ends with a series of aphorisms (III, 26), also believing that war principles could be learnt with the aid of past examples.

In the first book, Vegetius insists on the selection and training of recruits, the second refers to legion components and military discipline, the third discussed tactics, strategy and shortly, the castrametation, while the last book describes defence methods and various devices or defence machinery, as well as the fleet or navigation art.

He also makes reference to building forts, especially regarding the construction of the rampart and ditch excavation within the chapter reserved to the Roman soldier training (I.21–25) repeating certain paragraphs with variations and additions in chapter III.8. The fact that the soldier must be trained in ditch digging and constructions is described in chapter I.4, II.25, III.4, III.10. The fort must be constructed depending on necessity, hence the shape of the fortification is not clearly established and could be square, rectangular or semicircular (*Vegetius* I, 23; III, 8). Nonetheless, Vegetius does not consider the internal planning of the fort, except for mentioning the requirement of *basilicae* or porticus where the cavalry must train during bad weather, although in this case he does not clearly specify whether they should be inside or outside the fort.

Arrius Menander³⁸ contemporary with Papinianus³⁹, Ulpianus and Paulus⁴⁰, in the period from the end of the 2nd—beginning of the 3rd centuries AD wrote *De Re Militari* in four books, being largely used in *Digesta* of Justinianus⁴¹, comprising a series of rules and regulations referring to the military law and first of all the punishment of deserters.

³⁴ *Cestes* VI, 6.

³⁵ For the chronological framing of Publius Flavius *Vegetius* Renuatus, see Seeck 1876; Barnes 1979, 254; Birley 1985, 57–67; Milner 1993, xxv.

³⁶ For sources used by *Vegetius* see also Sablayrolles 1984.

³⁷ Most researchers credit the relation with Theodosius, see for e.g. Campbell 1987, 16–7.

³⁸ Giuffrè 1974, 76 sqq.

³⁹ Most important ancient author referring to the Roman jurisprudence, Brand 1968, 124–5, Giuffrè 1974, 67.

⁴⁰ They are also legal advisors whose texts referring to penalties are partially reproduced in Brand 1968, 185 sqq.; Giuffrè 1974, 67 sqq.

⁴¹ The books are reproduced in Brand 1968, 125–6, Appendix B. See also Giuffrè 1974, 73–98.

Rufus⁴² also writes extensively on the codes of military criminal law, emphasizing measures taken against soldiers for various reasons⁴³.

Except for the ‘classical’ sources, we also have at our disposal few disparate information concerning Roman technicians and their methods. Unquestionably, topographical knowledge is essential for military success. *Mensores* are important to the extent the fort is concerned, for instance, the sizes of the barracks, granaries or other buildings were important. Evidently, nothing was constructed by chance.

Hence, the *agrimensores* and map drawing were generally mentioned⁴⁴. Among others, Balbus, a civilian *agrimensor*, invited by Trajan to partake his expedition in Dacia, is given example. Balbus leaves a description of his tasks in Dacia, being involved especially in the construction of the *limes*. By the end of the war, he returns immediately to Italy and recaps his actions⁴⁵ in his book.

It is observed that a legion comprised approximately 10 *mensores*, probably one for each cohort, occasionally 11 (based on an inscription comprising a complete list of such topographers from *Viminacium*—CIL III 8112, 228 AD), probably two for the first double cohort, which was not a function but rather a condition (included as simple soldiers among *immunes*)⁴⁶. Nonetheless, B. Campbell argues that this figure was not necessarily standard, since considerable number of topographers would have resulted at the scale of the Empire, almost 363, an improbable figure since in Africa, Nonius Datus was, apparently, the single soldier topographer available⁴⁷, and additionally, the fact that Trajan was forced to appeal to a civilian, Balbus, as maintained by R. K. Sherk and B. Campbell confirms the reduced number of *mensores*. On the other hand, the same B. Campbell speaks about the involvement of military topographers in civilian projects⁴⁸. In general, their origin was in the Italian Peninsula and, usually, they seem to come from outside upper classes⁴⁹.

Regarding auxiliary troops, the presence of such *mensores* is signalled in only one inscription (CIL XIII 6538) from Mainhardt (Germania Superior) mentioning Maximus Dasantis: *mentor coh. [I?] Asturum*⁵⁰. Additionally 3 *mensores*, part of *coh. XX Palmyrenorum* are mentioned in papyri from Dura.

The texts and a collection of manuals on Roman topography are found in *Corpus Agrimensorum Romanorum* drafted probably in the 5th century AD, comprising texts from different authors. Such texts were abridged to a large extent in *Feldmesser* of K. Lachmann, a collection on which B. Campbell also relies⁵¹. The criteria according to which this compilation was made are not known, therefore it is hard to say how ample and uniform it was. One of

⁴² The identity of the author is not known, this *praenomen* being common for the Roman nomenclature. It is dated probably during Valentinianus, being often associated with *Vegetius*, see Brand 1968, 136–43, 147.

⁴³ For a partial reproduction and English translation see Brand 1968, 149 sqq.

⁴⁴ See Sherk 1974, *passim*.

⁴⁵ Blume, Lachmann, Rudorff 1848, 92–93; Sherk 1974, 541. O. Dilke maintains that Balbus may refer to Domitianus’s campaign in Dacia and not to Trajan, yet he is contradicted by R. K. Sherk, Sherk 1974, 546–9.

⁴⁶ Sherk 1974, 546–9. For *agrimensores* in general see also Adam 1982.

⁴⁷ Campbell 2000, II, n. 156 (quoting the case of Datus which he mentioned also *supra* p. xlviii)

⁴⁸ Campbell 2000, II.

⁴⁹ Campbell 2000, xxviii

⁵⁰ Domaszewski 1903, 58.

⁵¹ Campbell 2000. For references on *agrimensores* see also Campbell 1996, n. 4. See also Thulin 1913.

the texts, on fort planimetry, was so far erroneously attributed to *Hyginus Gromaticus* (= *Hyginus 2*)⁵².

The contributions of these *agrimensores* refer especially to *limites* (plural from *limes*— a term meaning inclusively road, riverbed, defence wall, drill, close to the border), their establishment, debates on such *limites* (practically, the borders between two properties), jurisdiction referring to the land and such disputes, measurement and division of the land in *centuriae*, principles of orientation, being usually descriptive, historical and especially didactical analyses, especially for the use of other topographers. The one who considers also aspects related to the forts is Hyginus 2⁵³. The fort shall be, alike civilian settlements, oriented depending on the compass four points, principal axes running north-south, east-west⁵⁴. Several times, orientation problems appear following the use of a probable, not very precise solar clock⁵⁵.

Inscriptions, especially construction inscriptions, are probably the most important sources available, yet unfortunately, they are extremely incomplete. Except for a few cases, archaeology remains the single means for the identification of information on the forts internal planning.

In general, the writings of the classical authors consist of simple didactical descriptions comprising maxims and models referring to military tactics and the *agrimensores* example to their contemporaries, being known starting with the 4th century BC. Obviously, the relevance of classical authors texts is essential and was often questioned, first of all, by contemporaries and then by us. Whether these strategy, tactics and Roman topography manuals were useful and applicable to their contemporaries is questionable⁵⁶. Especially since, except for Frontinus and Arrianus, the other ancient authors are probably only theoreticians. Concerning military tactics, it is hard to decide how useful these manuals were⁵⁷ since they provided *exempla*, and how often various strategies were applied. On the other hand, one may relatively easily overlie archaeological discoveries upon their fort descriptions. The biggest obstacle consists in the fact that none of the authors had clearly described auxiliary forts, which prove to be much more flexible in plan than fortresses. In the end, the need for theoretical knowledge of those *agrimensores* and architects was obvious due to the nature of their craft⁵⁸, compared to the

⁵² Quoted at n. 2 Grillone, *De munitionibus castrorum* (1977); M. Lenoir, *Pseudo-Hygin. Des fortifications de camp* (1979); Campbell 2000, xx, xxxvi.

⁵³ See Campbell 2000, 145, 390.

⁵⁴ It happened when, due to land topography, different orientation of the fort was not required, Dilke 1971, 86.

⁵⁵ Dilke 1971, 86.

⁵⁶ In fact Columella, referring to the manuals' applicability, in this case of agriculture, points out that the farmers should be cautious, use the manuals written in the past and assess the knowledge conveyed by the authors, observe whether they are relevant for the contemporary agriculture or are anachronic (*Columella* I.I.3–4), *apud*. Campbell 1987, 19. The same thing may apply to other manuals irrespective of the field they deal with, although B. Campbell draws the attention on the possible comparison between those who wrote the agriculture manuals and those who considered military aspects, Campbell 1987, 19.

⁵⁷ In order to distinguish the efficiency of these manuals, B. Campbell emphasizes Cicero's remark underlining the obsolescence of the military preoccupations among the youth, remembering the great commanders of the past, learning military art not from manuals but by experience and victories, see Campbell 1987, 20 sqq.

⁵⁸ Vitruvius reminds that there is a series of architects with neither education nor experience in this field, therefore he considers necessary to draft and make available a coherent architecture system, Vitruvius vi. 6–7.

commanders who could rely on their own experience. Evidence is given by the numerous manuals necessary to those *agrimensores*, focusing first of all on the rules useful to them. Nonetheless, great differences between the internal planning of the forts indisputably prove the appeal to the experience of each *agrimensor*, facing several times specific situations unlike the theory, being required to provide personal solutions. The fact is equally valid in the case when not an *agrimensor* decides the planning of the buildings inside a fort⁵⁹, since he is only the performer. *Mensores, architecti, metatores*, etc. would adapt to necessities, the forts lengths and widths ratios, for instance, being very different one from another: many of them, like in the republican period, are square⁶⁰. Probably the Roman genius resides precisely in this flexibility, which for lack of military, architecture or topography schools succeeded to rule almost everywhere.

Additionally, in the case of civilian Roman architecture, one may verify the applicability of the plans and solutions provided by Vitruvius and observe the frequent disassociation with the single ‘authority in the matter’, cases when the solutions described by Vitruvius, irrespective of all its exceptional value of single treaty on architecture, are few found in practice⁶¹.

The classical authors manuals dealing with the fort construction and elements of Roman topography do not provide verdicts, but offer a constructional variant or variants especially since, according to Vitruvius, architecture for instance, springs *ex fabrica et ratiocinatione* (I.I.1)⁶².

⁵⁹ In the case of the legion, *praefectus castrorum* is the authority making decisions on the fort construction and its internal planning, *Vegetius* I.10.

⁶⁰ The majority of forts from Dacia, for instance, are shaped closely to a square, see Bărbulescu 1987, 187.

⁶¹ Probably as proof for the period when he wrote and the fact that uses especially Greek sources, see Wilson-Jones 2000, 33 sqq; Taylor 2003, 24–6.

⁶² Nonetheless, we are not sure of how commendable is Vitruvius’s experience, the single construction effectively described being the *basilica* from Fanum, see Wilson-Jones 2000, 45–6.

II. DACIA POROLISSENSIS

Within this analysis, the military units from Dacia Porolissensis shall be studied formally, since I am interested in the relation between forts and troops, in other words, in their movement from one fort to another and less their history. Hence, the quoted bibliography is minimal.

Regarding the forts, I shall not present details on their enclosure, making reference only to the internal planning. Additionally, the study of such buildings is not exhaustive, while stress would be placed only where appreciation is not peremptory and when proposing alternative interpretation. In such cases, the presentation is most often detailed.

The bibliography quoted in relation to the forts is also minimal, since different papers provide generally identical information.

1. BOLOGA

The fort at Bologa (pl. 1, 2) is located on the north-western border of Dacia, left to Crișul Repede River, between Morlaca and Poieni. The fortification is placed on a high terrace close to the influx of Săcuieu River into Criș. The valley of Crișul Repede represents the connection between the Transylvanian plateau and the western fields of Tisa, therefore the strategic role of the fort consists, undoubtedly, in the *limes* defence against the tribes west of Dacia.

Based on an inscription (CIL III 8060) discovered at Almașu Mare, close to the locality Bologa, on the road between Sutoru—*Optatiana*, the name was completed to *Resculum* (TIR L 34, p. 196)⁶³.

In certain site reports, the first earth-and-timber fort from Bologa is 130.00 × 130.00 m⁶⁴, the large fort with turf rampart enclosure being further constructed by 75.00 m extension of the eastern and western sides of the smaller fort, the ditch on the southern side being backfilled (pl. 1)⁶⁵. The recorded dimensions of the first fort are oscillating, the excavator's work published in the same year mentioned 130.00 × 152.00 m, respectively 125.00 × 160.00 m⁶⁶, depending on the measurements anchor point.

⁶³ For the discussion referring to the locality name see Torma 1880, 11–59; Macrea 1969, 154–5; Gostar 1969a, 175–6; IDR I p. 188; Bogdan-Cătănicu 1981, 51; Bogdan-Cătănicu 1990, 63–4; Wollmann 1996, 67; Gudea 1997a, 8–9, 48.

⁶⁴ See Gudea 1997d, no. 21.

⁶⁵ Gudea 1977, 110; Gudea 1997a, 872.

⁶⁶ Gudea 1997a, 17; Gudea 1997d, 41.

The fortification is enlarged probably sometime before AD 133, the year of the first mention of *coh. I Aelia Gaesatorum* in Dacia Porolissensis or, when *cohors II Hispanorum* is moved to Bologa, i.e. before AD 154⁶⁷. In spite of the omissions in Dacian diplomas, between AD 110 and 154, the troop could have been evidently still quartered in the province, since it is not attested somewhere else.

The dating of the three occupation phases was made based on archaeological material, troops' movement and constructional elements. Discoveries from the first level consist of republican and Trajanic coins and a few brooches of Norricum-Pannonia type⁶⁸. Similar discoveries define the second level of occupation, being largely dated AD 125–200⁶⁹. I believe there are at least two further sub-divisions, a stage when *coh. I Aelia Gaesatorum* is missing by the end of the reign of Antoninus Pius (see *infra*) and a second period after the return of the cohort at Bologa. Constructively, layout changes may be noticed after mid 2nd century AD to the building from *praetentura sinistra* in the vicinity of *via principalis*, rebuilt in stone. On its 'mortar' floor a coin issued under Antoninus Pius was found (see *infra*). It is probably one of the constructions that belonged to the *Gaesati* cohort. The last stage of the enclosure is dated based on the towers semicircular shape by the beginning of the 3rd century AD⁷⁰, without the requirement of a direct relation between the reconstruction of gate towers and buildings inside. The material from the last occupation phase consists of *terra sigilata* fragments coming from especially the eastern Galls area and Raetia⁷¹. Should the weaponry from Bologa be chronologically framed rigorously, then the establishment of an evolution in the arms typology could be very tempting indeed⁷².

The northern, western and eastern enclosures of the fortification coincide during all occupation phases⁷³. The single clear elements belonging to the first fort at Bologa refer to part of the precinct and *via sagularis*. The planning of the main parts inside the fort, *praetentura*, central part and *retentura* indicate that during a first stage the position of gate *praetoria* was the fort central axis. Evidently, the most convenient solution would be the location of the headquarters on the same direction during all occupation phases, it being usually the first construction of a fort. *Via praetoria* would have been in this case diverted subsequently by almost 10.00 m westwards.

The first striking thing concerning Bologa is the division of the fort in sectors. The fortification inside is rather extended thus resulting a proportion of approximately 1.60 in the last two phases. The axis of the gates *principales* is at 70 m from the northern precinct wall and at 135.00 m from the southern enclosure. The space occupied by the buildings in *latus* is 30.00–35.00 m wide north to south. As such, *retentura* is double compared to *praetentura*, being extended to the south during the fort's last phases. The allotment of parcels to certain

⁶⁷ N. Gudea supposes the enlargement of the fort in AD 125–126, date when the troop of *Gaesati* reaches here, Gudea 1997a, 26.

⁶⁸ The distribution of the archaeological material in the fort is relevant partially, since excavations in the *praetentura* and *retentura* consist only of very long and narrow trial trenches, see excavations plan in Gudea 1997a, Fig. 10.

⁶⁹ The second archaeological level is considered to extend on the entire fort surface at a depth between 0.30–0.90 m, Gudea 1997a, 28.

⁷⁰ After Macrea 1957, 238–40.

⁷¹ Gudea 1997a, 41.

⁷² N. Gudea observes that weapons become increasingly smaller, following the evolution in the Roman battle tactics, Gudea 1994, 86–89.

⁷³ The fact was noticed in the area of *via sagularis*, traces of the first road phase being discovered on three sides, Gudea 1997a, 17.

buildings was observed only by the discovery of alleys that constituted probably the intermediary space between buildings, in the vast majority, barracks.

Could one speak about the division of the fort into two longitudinal sectors, the eastern wider compared to the western by approximately 10 m?⁷⁴ It certainly seems so! The same conclusion is reached if we take into consideration the concurrent presence of two troops (see *infra*) in the fort. We could wonder finally to which extent the central part of the fort had same peculiarities. The sizes of the headquarters building are rather large, yet they did not represent a hindrance in its use by two commander quarters (see *infra* the case at Romita). The existence of two buildings that would house the two commanders is more relevant. Theoretically, this space could also have been divided, yet, if we consider its civil character, as the commander was present here together with his entire family, we could suppose that it was preferable to erect two commandant's buildings. It is interesting that in *latus* there are two buildings of rather large sizes on each part of the headquarters building and each could have corresponded to half of fort occupied by each troop. The fact that initially, the fort of smaller sizes seems to have been occupied by a single troop may explain the subsequent diversion of *via* and gate *praetoria*, when a different planning was required, the headquarters building remaining on the spot.

The fort at Romita may exhibit same peculiarities like Bologna hence the internal planning of the buildings mirrors the longitudinal division of the fort (see *infra*).

Via principalis is 10.00 m wide, *praetoria* is of approximately 8.00 m and *decumana* 7.00 m wide. *Via sagularis* and the alleys between the buildings were almost 3.00–4.00 m wide. If *principia* was the first construction of the fort and *porta praetoria* was initially located on the north-south axis, precisely like the headquarters building, then the road network, *via praetoria* and *decumana* were initially by approximately 10.00 m eastwards, *praetentura* and *retentura* being divided in two equal halves. I do not know to what extent the main roads were provided with porticos. Somewhere by mid distance between the *principia* and *porta decumana* two walls placed on both sides of the road were uncovered by two short trenches. Such walls were considered component parts of a building⁷⁵. The obstruction of *via decumana* would be novel considering the internal planning of a fort and therefore unlikely. Blocking the area of *intervallum* is rather difficult to explain, yet hindering including the main roads of the fort would have entirely impeded access from and to the buildings. It is precisely why I believe that the two sectors of parallel walls belong in fact to a *stylobat* constructed along *via decumana*. In fact, there are two porticos which flank *via decumana* and not one cover it. The situation from the *praetentura* of the fort at Künzing is similar, where there are also four barracks face to face, those in the middle adjacent back to back and constituting one barrack⁷⁶. The orientation of the barracks from Künzing is also perfectly similar to that from Buciumi, as well the portico flanking *via principalis* and *via praetoria*.

Principia

Entrance into *principia* was made probably by mid northern side, therefore it was displaced compared to *via praetoria* by approximately 7.00–8.00 m. The distance is relatively high, yet it corresponds to the north-south axis. Thus I could suppose that, alike in other

⁷⁴ N. Gudea assigns to each troop a specific area of the fort, *coh. I Aelia Gaesatorum* occupying *praetentura* and *coh. II Hispanorum* the *retentura*, Gudea 1997a, 26–7.

⁷⁵ It was considered at some point that *via decumana* was covered by buildings, Gudea 1997a, 44.

⁷⁶ Johnson 1987, Abb. 195.

cases, the construction of the fortification was initiated once with the erection of the headquarters building and it is possible it was located in the same sector during all occupation phases.

Due to traces left by treasure hunters and stone exploitations, the layout of the headquarters building is unknown, yet wattle and daub residues, parallel with the walls of the subsequent stage suggest this building was previously timber-made⁷⁷. Nonetheless, the structure was investigated by diagonal trenches⁷⁸. The approximate sizes of the headquarters building are 32.50 (east/west) × 29.00 m (north/south) (942.500 m²), occupying approximately 3.3% of the total fort surface. As such, although dimensions are rather large, it engages relatively little space in the total fort surface and that is due, as we have seen, to the fact that at a certain point the fort was quite large.

Between the headquarters building and *via principalis* a layer of gravel and yellow sand was noticed, having 0.35 m thickness and constituting a sort of pavement. It is possible that a *basilica* existed in the area although in profile, between the mentioned context and the road⁷⁹ a gutter was found, useless this space would have been covered. Therefore, the existence here of a porticus that extended on the entire width of the building is much probable. An inside portico and rooms on the side from *via principalis* were not found, hence the external portico would have supplemented the lack of entrance's monumentality, which would have been, in the case the portico was missing, only an opening into the wall.

The thickness of the headquarters building walls is of approximately 0.90–1.00 m⁸⁰, without the mention of any different construction techniques.

The courtyard seems to be 13.00 m (north/south) × 22.00 m (east/west)⁸¹, thus occupying almost 30% of the surface of headquarters building. In the eastern part, traces of 3.50 m wide rooms flanking the courtyard were identified and the existence of other rooms located in mirror on the opposite side was supposed⁸². In this area the existence of certain rooms was presumed, although only a single wall running north-south was identified, without any compartments being further noticed. Obviously, the existence of a non-divided space was possible, yet this wall might have well constituted a *stylobat*. Unfortunately, the lack of technical details prevents us to establish which of the hypotheses is certain. It is possible that the free space could have been paved with a pebble layer, noticeable in the northern part of the courtyard⁸³.

Basilica. The passage from the courtyard to the basilica was probably made by a *stylobat* with only part of the wall carrying the columns being identified. The plan indicates, naturally, that the wall onto which the columns were located was much narrower⁸⁴. The sizes of this space are of approximately 30 (north/south) × 9 m (east/west) occupying 25% of the total surface of the building. By the eastern end of the basilica, the tribunal is probably identified, having the same 3.50 m approximate width alike the rooms along the courtyard. Only the walls from the inside of the basilica were identified⁸⁵, therefore the reconstruction of

⁷⁷ After Gudea 1997a, 24.

⁷⁸ Gudea 1972, 135, Fig. 1.

⁷⁹ Gudea 1973a, Fig. 2.

⁸⁰ Gudea 1972, 135.

⁸¹ The dimensions were measured by us from the plan provided in Gudea 1998a, Fig. 18. Dimensions of 19.00 (north/south) × 22.00 (east/west) are given elsewhere (Gudea 1972, 135) yet in plan, they seem to be different.

⁸² Gudea 1972, 135.

⁸³ The layer is approximately 0.25 m thick, Gudea 1972, 135.

⁸⁴ Gudea 1997a, Fig. 18.

⁸⁵ The fact that the walls sizes don't seem to be identical to the outer walls of the building (Gudea 1997a, Fig. 18) is rather unusual, being regularly narrower since they did not have to support a superstructure.

this tribunal on the entire width of the basilica is uncertain. Moreover, by analogy with other forts, the tribunal was positioned either in the centre, yet its walls did not constitute a projection in the *basilica* of the room walls flanking the courtyard or the back rooms, or adjacent to the wall between the *basilica* and the back rooms of the building. In fact, should the tribunal would have stretched on the entire width of the *basilica*, its sizes of almost 3.50×9.00 m (31.50 m²) would have been unusual large and of a unique rectangular shape. The mirror reconstruction of the tribunal in the west end is improbable⁸⁶.

Back rooms. Unfortunately, the southern side of the headquarters building was disturbed in the modern period by stone hunters. Traces of the partition walls were noticed for four/five rooms on the southern side⁸⁷. The central room, of very small sizes of 2.50×6.00 m is not placed precisely on the north-south axis of the fort, being displaced by 2.00–3.00 m westwards. Having a surface of 15 m², this room occupies only 7% of the surface of 195 m² of the back rooms. Flanking this partition, there are two divisions of unequal sizes. The wall separating the rooms in the eastern part of the building was not identified, being restored in extension to the north-south wall forming the western limit of the rooms bordering the courtyard and the tribunal. It would have been natural for these rooms to have had approximately equal sizes, therefore a partition wall somewhere by mid distance between the *aedes* and the eastern part of the building may be supposed. Another possibility would be the existence in the area east of *aedes* of three rooms, this space being at any rate larger than in the west.

Praetorium

The commander's house (fig. 1) is located at 4 m east of *principia* and occupies a surface of 570.00 m², resulting a percentage of c. 2% of the total fort surface. The construction is divided longitudinally in four sectors. Two of these spaces ended in the southern part with

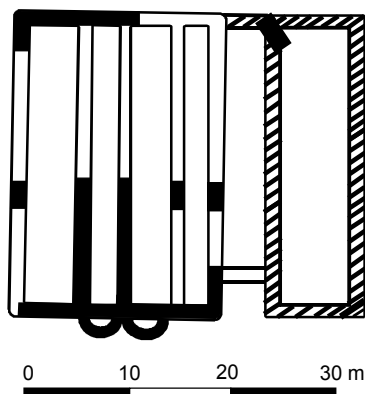


Fig. 1

semicircular apses. Additionally, in two of these rooms traces of a heating system were identified, while in another brick pavement⁸⁸. The apses could have been part of a small thermal system, since an inscription honouring Nimphae Augustae was discovered inside the building⁸⁹.

A single main phase of the building to which an annex would be attached during the 3rd century AD was identified by excavation. The existence of a previous phase is highlighted by the discovery of a rather consistent occupation layer under the mentioned pavement, yet we are not certain whether it belonged to a previous *praetorium*.

⁸⁶ We have no data on the existence of two *tribunalia* erected in mirror on both short sides of the *basilica*. It is true that in certain forts, two constructions may be found on both short sides of the *basilica*, yet their function is evidently different. The most appropriate example can be found at Sarmizegetusa where the construction on the eastern side of the *basilica* was identified as *tribunal*, as a *carcera* was identified beneath it, while the platform on the opposite part fulfilled a role of *augusteum*, Étienne, Piso, Diaconescu 2004, 136, 141. In certain fortresses there are also constructions on both the short sides of the *basilica* (Petrikovits 1975, Bild 13, 14), therefore the existence of two *tribunalia*, though improbable, must not be entirely excluded.

⁸⁷ Gudea 1972, 135.

⁸⁸ Gudea 1997a, 39.

⁸⁹ Gudea 1997a, 39. Undoubtedly, the attestation of the goddesses does not necessarily certify the existence of *termae*, only a small *nymphaeum* or a simple fountain possibly existed.

I do not believe that the longitudinally placed division on sectors *c.* 6.00 m wide is suitable to such construction types. In fact, the excavations performed on relatively reduced scale, did not clearly identify the partition walls. An alternative reconstruction is also possible, that unquestionably, should keep in mind the residential character of this structure, requiring several rooms, a characteristic of Mediterranean type houses as we expect this structure should be.

The subsequently annex attached partially over *via sagularis* is sized 10.00 × 28.50 m; a free space of 5.00 m wide existed between it and the *praetorium*⁹⁰. At some point this space is blocked by the ends⁹¹ and its purpose changed, making common body with the commander's quarters. I do not know to which extent this space was or not covered. Theoretically, in order to cross to the larger sized annex, a passage area would have been required, therefore it would have been logical that this space had remained at least partially, open. *Contra*, the excavators argue that the emergence of the archaeological material would be sufficient proof that this space was an inhabitable area compared to the annex where little archaeological material was found⁹².

Horrea and store rooms

Building B (Fig. 2), associated to a granary, is located in *latus sinistrum* at a distance of 4.00 m from *principia*. It is 10.00 × 28.50 m (285 m²), occupying 1.00% of the total fort surface, a percentage relatively reduced when compared to other forts⁹³. The ratio length/width is almost 3:1, values found with the majority of granaries from Britannia.

Considering the dimensions and the fact that the building is divided on the inside by a longitudinal wall, we may suppose that we deal with a double granary⁹⁴. The granary must not have been a simple one, the sizes of 10.00 m framing it within the maximum limits of granary sizes⁹⁵. In this case, the longitudinal wall inside the building is not a partition wall, but one of the walls carrying the pavement. Moreover, the lateral walls are provided with buttresses placed at 6.00 m intervals. The distance between buttresses is fairly large, normal framing limits being of 2.00–4.00 m, hence it is certain that in *latus sinistrum* there were two *horrea* with a common wall. Thus, each *horreum* became almost 5.00 m narrow and the pressure over the walls was not exaggerated, a smaller distance between the buttresses being not required.

In a previous report, N. Gudea asserts that this building was provided with a pavement made of gravel and sand, the archaeological material consisting of bricks and a few iron objects⁹⁶.

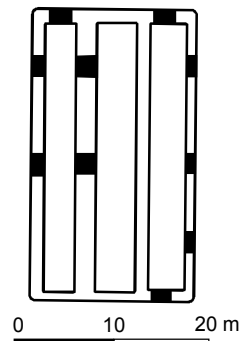


Fig. 2

⁹⁰ By analogy with the buildings from Buciumi and Porolissum-Pomet, N. Gudea dates the annex after Alexander Severus, Gudea 1997a, 45.

⁹¹ The northern wall blocking this space is located aligned to the frontal wall of the building, in exchange that in the south does not connect the southern limit of the *praetorium* and the annex, but is displaced by a few meters inwards the construction, after Gudea 1997a, 45, Fig. 18.

⁹² Gudea 1997a, 45.

⁹³ Usually, the surface occupied by granaries is of approximately 1.5–2.00% of the total fort, Gentry 1976, 27, Tab. 1, 2.

⁹⁴ The building belongs to type B with G. Rickman, being similar to certain granaries from Hardknott, Benwell, South Shields, Housesteads, etc., Rickman 1971, 226; Gentry 1976, 7.

⁹⁵ The width of the granaries is in general between 6–10 m, Rickman 1971, 247; Gentry 1976, 7; Taylor 2000, 38.

⁹⁶ Gudea 1973a, 116.

Another construction, also considered to have fulfilled a role of *horreum* (fig. 2) was identified 4.00 m west of building B, close to gate *principalis sinistra*. Its sizes of 28.5 × 20.5 m do not fit to a simple *horreum*, a space of such sizes being extremely difficult to cover especially since buttresses could not be identified. This construction could have, probably, represented a double *horreum* with a central courtyard, of the type from Caerhun and Ambleside, framed by G. Rickman in the third type⁹⁷.

In average, the surface of the granaries represents approximately 1.50–2.00 m, yet the strategic location of the fort at Bologa could represent an argument for the location here of two *horrea* that would occupy maximum 3% of the surface. In the case of the second construction, the existence of a free central area could explain the lack of buttresses, as spaces of c. 6.00 m wide would have been covered, on each side of the courtyard⁹⁸.

Beside, the existence of another *horreum* was not required, even though the first was of smaller sizes. Therefore, one may not exclude that this construction fulfilled a different purpose, yet the amplexness of the excavations in this area, much more reduced, do not allow attribution to certain types.

Barracks

Four barracks each were ‘identified’ (?) in *praetentura*. 3.50 m wide⁹⁹ roads made of gravel and reddish-coloured sand existed between these barracks although within a previous report, N. Gudea does not mention anything regarding the existence of two barracks groups¹⁰⁰, fact which results precisely from the trench profile. Or, occupation traces were identified precisely under the road between barracks 2 and 3, small street which had to exist from as early as the first phase. Within the same report, the author of the excavations observed that the single roads contemporary to the first phase are those separating barracks 1 from 2 and 3 from 4, stating in conclusion that in *praetentura sinistra* there would have existed in a first phase only three barracks, while subsequently the central barracks would have been split into two¹⁰¹. It is hard to believe, if not impossible, that a construction of 28.50 m wide would represent a double barracks.

The barracks sizes differ from 40.00 × 50.00 m in *praetentura sinistra* to 40.00 × 60.00 m in *praetentura dextra*¹⁰². Since no further topsoil removals were carried out, no additional construction elements were found, except for some traces of timber posts, wattle and daub and tiles and imbrices, meaning they covered such wattle and daub constructions.

During the inhabitancy, a change in the purpose of the barracks from *praetentura* takes place within this phase, hence the part from *via principalis* of barracks B1 is rebuilt in stone, its new sizes being 6.50 × 40.00 m. Inside the construction a mortar pavement was identified, wherein a coin from Antoninus Pius was discovered¹⁰³. The level corresponding to the occupation level in the wattle and daub barracks was found under this pavement. Subsequent the analysis of the material, N. Gudea dates the stone barracks after mid 2nd

⁹⁷ Rickman 1971, 226.

⁹⁸ The existence of a courtyard in this area is not certain, the walls on the short sides might have been discontinued, while the central space might have been free of enclosure.

⁹⁹ After Gudea 1997a, 23.

¹⁰⁰ Gudea 1973a, 114.

¹⁰¹ Gudea 1973a, 130.

¹⁰² Quoting D. Davison, N. Gudea reaches the conclusion that the *praetentura* of the first stage comprises double barracks, Gudea 1997a, 23.

¹⁰³ Gudea 1997a, 23.

century AD¹⁰⁴. It is hard to believe yet that this building represents a barrack, considering its construction technique characterised by 1.00 m wide walls in stone bound with mortar, different from the rest of the barracks from *praetentura* or *retentura*. It is also useless to remind that the northern wall of the construction B1 could not be a common wall with a wooden barracks placed behind building B1¹⁰⁵. Concerning the chronology, it seems obvious that its refurbishment took place once with the return of *coh. I Aelia Gaesatorum* from Pannonia Superior after mid 2nd century AD (see *infra*).

Between *via principalis* and the first barracks from *praetentura sinistra* (building B1) a clay layer of darker colour with poor traces of occupation was identified¹⁰⁶. I believe that this stratigraphic context could represent the veranda of the above mentioned construction.

Only in the area of barracks 2 a lower level was found, consisting of yellow clay. The author of the archaeological excavation argues that the archaeological material therein is 'similar' to the one in the upper level, yet a previous phase of the barracks could have existed¹⁰⁷. In fact, traces of occupation were found beneath the road separating barracks 2 from barracks 3.

Regarding the barracks from *retentura*, N. Gudea maintains they 'do not present stratigraphic sequence as obvious as in *praetentura*, therefore we could not make a division upon phases'¹⁰⁸. In this area five barracks each, flanking *via decumana* were identified, of which four were double, thus resulting a total number of 14 barracks associated with stables. Evidence on the existence of such barracks or stables was provided by the identification of the roads separating them.

The date when the fort was enlarged is supposed to be AD 125–126. As a result, the sizes of the enlarged fort are suitable for *cohors quingenaria equitata* and *milliaria*¹⁰⁹.

It was maintained that the troop of Hispanics would be *quingenaria* and *equitata* (6 *centuriae* + 4 *turmae*) being housed in 8 barracks and 2 stables in *praetentura*. Based on the analogies with the fort at Künzing, N. Gudea considers that buildings B4, B8, B2 and B6, the single individual and not double buildings, were stables¹¹⁰, yet the situation from Künzing is different.

The same author states that such buildings, regarding which we have no detailed information, could have accommodated precisely 136 horses (?), interpretation which could also be false.

Rampart buildings

In *retentura*, in front of barracks B9 and B10 walls of constructions were also traced, the distance between them being of 4.00 m.

A second rampart building is that identified by M. Macrea north to *porta principalis dextra*, sized 15.65 × 3.60 m¹¹¹. Named building E, it was erected on *via decumana*, a phenomenon found also at Buciumi, Romita or Porolissum.

¹⁰⁴ Gudea 1997a, 24.

¹⁰⁵ After Gudea 1973, 130.

¹⁰⁶ Gudea 1973a, 113.

¹⁰⁷ Gudea 1973a, 113–4.

¹⁰⁸ Gudea 1997a, 24.

¹⁰⁹ Gudea 1997a, 26 quoting Breeze, Dobson 1969. The similarly sized fort from Cășeu is believed to have belonged to a single unit *milliariae equitatae* (see below).

¹¹⁰ Gudea 1997a, 26.

¹¹¹ Macrea 1939, 219–21. In Gudea 1997a, 45, sizes are 17.00 × 6.00 m.

Troops

The earth-and-timber fort was probably built by *cohors I Ulpia Brittonum*, a troop transferred after a short-while at Porolissum. The stamps attesting it were discovered in an early context¹¹². The troops succession at Bologna, established by N. Gudea is possible, the cohort of Britons being followed probably after AD 116 by *cohors II Hispanorum*¹¹³.

Nonetheless, it is not totally excluded that CES stamps found at Bologna would represent an irregular or temporary troop, which would be transformed by Hadrian in *cohors I Aelia Gaesatorum milliaria*¹¹⁴. Unfortunately, we don't know the stratigraphic context wherein such stamps were discovered, yet, should the *Gaesati* be organized as irregular troop, it could have been stationed at Bologna only prior AD 126, the year when *Gaesati* appear in Pannonia Superior under the name of *cohors* (AE 1995, 1823). Additionally, the almost ten stamps are sufficient proof for supposing the presence of this unit in Dacia, at Bologna, *Gaesati* being recruited for the Dacian wars. The fact that this cohort is mentioned in the Pannonian diploma of AD 126 may be odd, but since the troop or only part of it would move between AD 154 and 160/161¹¹⁵ to Pannonia Superior, it could have moved within the same province sometime by the end of Trajan's reign.

Therefore, during a first phase, the troop of Britons could have been stationed at Bologna together with those *Gaesati* organised as *vexillatio*. Nonetheless, considering the history of the troop of Britons and the fort sizes, which are not very large, I believe that the latter troop stationed here by itself, while only vexillations from *cohors I Brittonum* were present, since it was garrisoned at Porolissum¹¹⁶.

Cohors I Aelia Gaesatorum is attested under this title for the first time in the Gherla diploma of 2.07.133 (IDR I, 11 = AE 1962, 255 = RMD 35) and then in 154 (IDR I, 17 = CIL XVI, 110 = RMD 47) and 164 (IDR I, 20 = AE 1959, 37 = IDR I, 18 = AE 1957, 199 = RMD 63–4; IDR I, 19 = CIL XVI, 185). Prior AD 164, the troop was again in Pannonia. Although certain authors wondered whether the troop was or not *equitata*, no evidence exists to this end, conversely, considering its specific weapon, the troop was most probably of infantry.

It is possible that at some point the troop had a smaller effective, the main argument being that in the diplomas from AD 164 it is not further mentioned as *milliaria*. In theory, the mention or sign of *milliaria* was not compulsory¹¹⁷, yet, in the case of the troop from Bologna, one may not exclude the fact it might have become *quingenaria* during its second visit to Pannonia. Additional evidence is given by the indication of a cohort *praefectus* within an inscription¹¹⁸.

¹¹² Gudea 1997a, 19.

¹¹³ Gudea 1997a, 19–20.

¹¹⁴ Petolescu 1974, 602, fig. 5/1; Gudea 1976, 518, no. 2; Gostar 1979, 120. Evidence that the troop existed prior Hadrian's reign is its mention in diploma from AD 126 (AE 1995, 1823), see Holder 1998, 258. During the Severans, *Raeti gaesati* are attested as vexillations in Britannia, always associated with other troops, see Southern 1989, 87, 117–8; Jarret 1994, 73.

¹¹⁵ The diploma mentions only [...] *gaesat(orum)* [...], being considered as this troop by Lőrincz, Petényi 1994, 200–4; Lőrincz 1996 (1998), 249–50; Lőrincz 2001, 34, Kat. 40, 49. *Contra* Gudea 1996, 90.

¹¹⁶ See Marcu 2004a, *passim*.

¹¹⁷ Within the same diplomas of 164, in the case of *cohors I Britannica* the sign is omitted, although by the beginning of the 3rd century we know for sure that the troop continued to be *milliaria*, see Panaitescu 1929, 324.

¹¹⁸ CIL III, 7648; Gudea 1972a, 707–11. Nevertheless, other cases of *praefecti* at the command of *milliariae* troops are also known: *I Tungrorum* (CIL VII, 638–42) and *II Tungrorum* (CIL III, 11918, CIL VIII, 5532), see *Praefectus*, RE XXII, 2, 1278–1283. N. Gudea makes probably a confusion when stating that at the command of *cohors II Nervia Brittonum*, known at Buciumi, *praefecti* were assigned, see Gudea 1997b, 32.

The stamps and inscriptions of the troop prove its quartering at Bologa also during the 3rd century AD, being attested with the epithet *Gordiana*¹¹⁹.

The second cohort, whose stamps would appear in excavations associated with those of *cohors I Aelia Gaesatorum* is *cohors II Hispanorum*, identical probably with *cohors II Hispanorum scutata Cyrenaica* part in AD 154 (RMD 47) of Dacia Porolissensis army. The epithets were added following various campaigns outside Dacia in which the troop participated sometime between AD 110 and 154¹²⁰. With the simple name of *cohors II Hispanorum* the troop is also mentioned in the diplomas from Dacia of AD 109 (AE 1990, 860) and 110 (CIL XVI, 163 = IDR I, 3). Beside numerous stamps, the military unit is attested in various inscriptions from Bologa, bearing the imperial surname *Antoniana* and *Gordiana*¹²¹, hence being most probable that the troop was stationed in the fort until its dissolution.

The most important issue remains the resolution of the troops' succession. The stamps in the south of Dacia¹²² as well as an inscription from Vârșeț¹²³ could prove the troop of Hispanians presence in this area under Trajan. The first certain evidence of the unit presence in Dacia is the diploma from AD 154 (RMD 47).

Although invisible within diplomas, *cohors II Hispanorum* was *equitata* at least at some point, as proven by the identification of decurions¹²⁴.

In conclusion, I believe that the presence of a unit of *Gaesati* during the Trajanic period is possible, while *cohors I Ulpia Brittonum* partook the fort construction works by tiles and probably personnel aid. The cohort of Hispanians would establish here by the end of Hadrian's reign, when, probably, the troop was already *equitata*, moment when the fort would be enlarged¹²⁵. *Cohors I Aelia Gaesatorum* could have become *quingenaria* at that time, as well.

Regarding the arrangement of the troops inside the fort, I do not believe that the barracks could be assigned to one troop or another, idea which applies even less to the early phase barracks, whose research was superficial. Additionally, the archaeological digs from *praetentura* and *retentura* are almost irrelevant, both for the first as well as the second and following occupation phases of the fort.

Major changes in the internal planning of the fort took place, without a doubt, once with its concurrent occupation by two units under Hadrian. Another major change seems to have taken place after mid 2nd century AD after the arrival of *coh. I Aelia Gaesatorum* from Pannonia. The main reason of the changes inside the fort could have been the structural changes of *coh. I Aelia Gaesatorum* as it became *quingenaria*. Beside the documentary arguments mentioned, changes inside the fort may be traced. Then, it would have been possible to divide the *praetentura* and *retentura* in uneven parts due to the composition differences of the two troops from Bologa. They could have been *quingenariae* and *coh. II Hispanorum, equitata* as well. Hence, this troop would have required a larger accommodation space. This enlarged space is found in *praetentura dextra* and *retentura dextra*. How is this phenomenon mirrored inside the fort? Theoretically, it would have been ordinary that the

¹¹⁹ Gudea 1972b, 415–6, no. 6–7.

¹²⁰ On these appellatives see Gudea 1997a, 48; Spaul 2000, 129–30.

¹²¹ Gudea 1972b, 414, no. 2; 414–5, no 5.

¹²² CIL III, 1703; IDR II, 104.

¹²³ CIL III, 6273 = IDR III/1, 106. This inscription is put in relation to the conflicts triggered by the Iazyges, see Balla 1969, 111–3; Russu 1973, 48–9.

¹²⁴ CIL III, 843; AE 1983, 941.

¹²⁵ Unfortunately, regarding the fort dating, single indications may be the troop movements.

number of buildings belonging to the *equitata* cohort would be larger, additional stables being necessary, yet this is indeed unlikely. Therefore, the single fashion was housing the troop in mixed barracks that would accommodate both soldiers and horses. This is certainly a pattern, being apparently, preferred to the separate housing of the horses system. Evidently, an enlarged space was required for each *contubernium*, the larger length of the buildings from *praetentura dextra* and *retentura dextra* being thus explicable.

To conclude, I suppose the distribution of *coh. II Hispanorum* in the eastern half of the fort and of *coh. I Aelia Gaesatorum* in the western half. This could be applicable including the case of the commander's quarters and granaries.

2. BUCIUMI

The fortification from Buciumi (pl. 3, 4) located on the north-western *limes* sector between the forts at Bologna to the south and Romita or Porolissum to the north was meant to survey a secondary pass created by Ragului valley. The position is on a terrace (*Grădiște*) formed at the intersection of Lupului valley with Mihăiesei valley dominated by a few hills around. The fort from Buciumi controlled two important passes, on Ragului and Poicului valleys which connected it with the fort at Bologna. The fort also had easy connection with the fortifications on Agrijului valley: Românași, Romita, Porolissum and Tihău¹²⁶.

The fort, signalled as early as the 16th century¹²⁷, comprised two main occupation phases, the last with a stone enclosure¹²⁸.

Regarding the enclosure dimensions, differentiation in distinct construction phases is relatively insignificant, 125.00 × 160.00 m, compared to 134.00 × 167.00 m, being thus appropriate, at least theoretically, for an effective of *c.* 1000 people. The fort length runs north/east-south/west.

Buciumi is undoubtedly the most complete excavated fort with a good number of details related to constructions and archaeological material. Systematic research were initiated in 1963 by a team supervised by E. Chirilă, which led to the final uncovering of the buildings in the central part and those labelled 1, 2, 4 and 5 from *praetentura*¹²⁹. The rest of two buildings from *praetentura* were examined by trial trench and one (C1) of the two buildings in the rampart area located on both sides of gate *praetoria*, was completely unearthed. The research from the last diggings years (1970–1976) remained yet unpublished.

Except for gate *praetoria*, with rectangular towers, the gate towers have a semicircular projection. The gates span, except for *porta decumana* (simple) are double, each of approximately 8.00 m¹³⁰. Therefore, the main internal roads *via principalis* and *via praetoria* are of 7.20, respectively 6.30 m wide¹³¹. The first road divides the fort into two unequal parts

¹²⁶ The presence here of a beneficiary *P. Iulius Firmius* (CIL III 7645) does not compulsorily confirm the existence of a *statio*, see details in Gudea 1997b, 7–8, 11.

¹²⁷ The first who mentioned the fort is Stephanus Zamosius, the most detailed description belonging to C. Torma in the second half of the 19th century, see Russu 1959, 308–9. For older archaeological digs see Macrea et alii 1969; Macrea et alii 1965; Macrea et alii 1970.

¹²⁸ See Chirilă et alii 1972, *passim*; Gudea 1997b, *passim*; Landes-Gyemant, Gudea 2001, 129–30. For the fort graphical reconstruction, see Landes 1979; Landes, Gudea 1984.

¹²⁹ See for a short history Chirilă et alii 1972, Fig. 2.

¹³⁰ For certain technical details, including the traces of the staircase for access inside and the gate reconstruction see the recent contribution from Landes-Gyemant, Gudea 2001, 135–139.

¹³¹ Chirilă et alii 1972, Fig. 22, 23. There are no indications referring to *via decumana*, yet the plan shows two long trenches crossing the *retentura* diagonally, so it is possible that they did not intersect this road.

with *praetentura* of 1/3 of the total surface and *latus* and *retentura* occupying 2/3 of this surface. The alleys from *praetentura* are 1.50–2.00 m wide, while that surrounding the commander's quarters is 6.00 m wide¹³². In exchange, the single alley running along *retentura* is 4.00 m wide, at a point between two buildings where it could be measured¹³³. Hence, *via quintana* could not be observed in any of the two main trenches crossing *retentura*. Or, the rather large width of the single transversal road behind the headquarters building does not indicate a secondary alley between two barracks, being most probably *via quintana*. The fact suggests yet, a depth of almost 50.00 m of the central part of the fort between *via principalis* and this road from *retentura*. In fact, *principia* also extends by a few meters over the back line of the buildings from *latus*. Such a planning is proper to fortresses and a few auxiliary forts, where between headquarters building and *retentura* a series of other buildings and especially a *valetudinarium* are also set¹³⁴. At first sight at Buciumi could have been a similar situation to that in Wallsend, where the hospital, although located in the central part of the fort is not aligned with the rest of the buildings from *latus*, the distance between *via principalis* and *via quintana* being enlarged, thus creating a free space of rather large dimensions¹³⁵. In fact, this empty space would be occupied at some point by the commander's quarters or the annex to it from *latus dextrum*.

Within a first phase, in each part of the *praetentura* four barracks each are placed *per scamna*, those in the middle being double with a common back wall. Therefore, the barracks on the ends are backing to *via principalis*, respectively the *intervallum* area. This may be observed from the plan rendered by the excavators, along the back wall of the barracks placed in *praetentura sinistra*, near *via principalis* several post-holes being identified¹³⁶. It is obvious that these posts were not part of the barracks structure, since its veranda is located in the opposite part, in the same direction being identified including the projection of the officer's quarters. Or, such pole holes represented most probably a portico which extended on both sides of *via principalis*, as found somewhere else¹³⁷.

Subsequently, in a different occupation phase, the internal planning of the roads and porticoes along the roads could have been similar with the posts or columns being placed probably on a *stylobat*. New elements made the excavators consider that the walls with buttresses placed along *via principalis* were part of the barracks structure, deeming them, accurately, as posts bases¹³⁸. Obviously, this wall carrying the posts was undoubtedly related to the barracks, yet, together with the one placed in the opposite side constituted the portico which flanked *via principalis*. Yet, if we believe a *stylobat* existed, then which would be the reason for buttresses placed at approximately equal distances of almost 5.00 m along the wall? If the weight of the portico roof, constituting the northern extension of barracks B1 and B4 roof, was too great then the necessity of smaller buttresses could be explicable for the northern *stylobat* and not as discovered, in the southern part. What role did such buttresses fulfil? Their existence southwards would suggest theoretically a supplemental weight of a roof over *via*

¹³² See Chirilă et alii 1972, 26. Another size of only 2.50–3.00 m is given in Gudea 1997b, 45.

¹³³ After Chirilă et alii 1972, 21.

¹³⁴ For fortresses and especially the cases from Inchtuthill, Novaesium, Vindonissa or Carnuntum, see Petrikovits 1975, Taf. 1a, 6a, 8a, 11a.

¹³⁵ See plan in Hodgson 2003, Fig. 10.

¹³⁶ See for instance Gudea 1997b, Fig. 10.

¹³⁷ Similar cases may be observed in Germania with the forts from Oberstimm, Hofheim or Künzing, see Johnson 1987, Abb. 180, 190, 195. See also Landes-Gyemant, Gudea 2001, 151.

¹³⁸ See Gudea 1997b, 50.

principalis. This fact is yet rather improbable, although not impossible, considering the road width and length. Additionally, the space between this wall and the northern limits of the barracks placed along *via principalis* would have been closed, since the wall with buttresses would have been continuous and quite high. The same would have happened to the space between the correspondent wall and the buildings in the fort centre, a wall which in fact, has no buttresses. That is why a possible explanation would be that such buttresses would represent actually the places where and partially on which, the posts or columns of the portico bordering *via principalis* were placed. Or, in this case, the *intercolumnium* becomes noticeably large, the interval being of approximately 5.00 m in the case of building B1 and much larger in the case of building B4.

The width of *via principalis* extends including in the area of the portico flanking it, also a paved area¹³⁹.

At the junction between *via principalis* and *via praetoria*, towards *porta praetoria* two limestone 'monumental' bases sized of 1.00 × 1.00 × 0.25 m (corner building B1), respectively 1.30 × 1.30 × 0.25 m (corner building B4) were observed. They were deemed inscription bases as stone fragments, some bearing letters, and altar fragments were identified¹⁴⁰. Or, the location here of the *stylobat* bases is unlikely. What would be then the explanation? Probably, large poles or column bases were required here, the space in front of the entrance into *principia* being covered alike *tetrapylum* constructions type marking *locus gromae*¹⁴¹, the most spectacular example being that in the fortress from Lambaesis (see discussion *infra* on Romita case). This may be possible, but then the existence of similar bases by the ends close to gate *principalis sinistra* and the corner of building B3 in front of gate *praetoria* remains to be explained.

Principia

The plan of the commandant's quarters, contemporary with the first phase of the precinct remains unknown, since traces of some post-holes which would possibly correspond to the wall route were identified only¹⁴². It was erected sometime by mid 2nd century AD, being 26.00 × 3200 m and a surfaced 832 m².

Principia is located on the longitudinal axis, symmetrical to the sides of the fort and the extremities at 37.80 m from *portae principales*¹⁴³. Nonetheless, the entrance into the building is not perfectly symmetrical, but is closer by 50 cm to the western side of the structure, therefore not precisely in the middle of *via praetoria*. The front part of the construction consists of a continuous wall, interrupted on a distance of 3.70 m for the entrance¹⁴⁴. The structure of the building is made of stone mixed with bricks, has wide walls of 0.80 m with a basis of 1.00–1.05 m and 0.40 m high.

¹³⁹ The discovery of the gravel layer of *via principalis* also between the wall with buttresses and the barracks, led the excavators suppose the road was initially wider, Chirilă et alii 1972, 23.

¹⁴⁰ Chirilă et alii 1972, 20.

¹⁴¹ Subsequently, in the graphic reconstruction of the fort from Buciumi the authors render a similar construction in front of the entrance into *principia*, see Landes-Gyemant, Gudea 2001, Abb. 21.

¹⁴² Gudea 1997b, 45. For the reconstruction of the commander's house see Landes, Gudea 1980 and Landes, Gudea 1983.

¹⁴³ The short sides of the *principia* are located at approximately equal distances from *porta praetoria* and *porta decumana*, at 62.00, respectively 60.00 m, after Chirilă et alii 1972, 24.

¹⁴⁴ Chirilă et alii 1972, 24. Recently, the sizes of only 1.70 m of the entrance are given after Gudea 1997b, 45, and subsequently of 4.00 m, after Landes-Gyemant, Gudea 2001, 142.

The northern extremity of the building, opposed to the entrance, is not in line with the back side of the buildings in the fort centre, being by almost 4.00 m more to the north, so I supposed the existence of a deeper *latus* which does not end on the back line of the buildings located here.

Inner courtyard. The courtyard has a total surface of 251 m², dimensioned 15.50 × 16.20 m and occupying 30% of the building. From the plan, the bases of the courtyard portico are missing, yet the pavement made of large stone slabs does not continue up to the walls of the rooms bordering the courtyard¹⁴⁵. Hence, it is obvious that there was a portico of 2.00–3.00 m deep, reconstructed subsequently as such¹⁴⁶. It surrounds the courtyard on three of its sides, including the entrance front, the pavement reaching the *stylobat* separating the front courtyard from the *basilica*. In the south/west corner of the building a fountain was identified¹⁴⁷, a characteristic usual for the majority headquarters buildings. The courtyard is flanked laterally by two rooms each, sized 3.60 × 7.00 m and 3.60 × 8.00 m (the rooms in the western part), respectively 3.30 × 7.60 m and 3.30 × 8.00 m (the eastern rooms)¹⁴⁸. The compartments are supposed to be *armamentaria*, yet the pavement of ‘mortar layer’ and the discovered material are not conclusive for determining the rooms function¹⁴⁹.

The 1.00 m wide wall which carried the column bases between the courtyard and *basilica* was identified as having a role of *stylobat*¹⁵⁰. Traces of two large column bases were found, the *intercolumnium* being of 2.80 m, sufficient for a rather high building part.

Basilica. Its dimensions are 24.00 × 8.25 m and spreads over a surface of 198 m², a 24 percentage of the total building. Inside, the *basilica* was not paved and two trestles sized approximately 1.20 × 1.20 at base and placed at 5.75 m one from the other were discovered on both sides of the *aedes* entrance, at a distance of 2.30 m from the wall. Around them several inscription fragments were found, among which an altar dedicated to Caracalla¹⁵¹. Nonetheless, the existence of several column bases is rightfully supposed as five openings between the courtyard and *basilica* were designed¹⁵².

The tribunal was identified in the north/east corner of the *basilica*, making common wall with room A on the back side of the headquarters building¹⁵³. Its sizes are 3.85 × 3.20 m, with only 60 cm thick walls, erected precariously from stone and bricks¹⁵⁴.

At a certain point, in all of the rooms located on the back side of headquarters building, on both sides of the *aedes*, a channelled heating system was introduced. The walls of poor quality separating the two spaces of larger dimensions (4.80 × 8.75 m) located on both sides of the central room are probably erected from the beginning as well, the role of that large initial compartments being hard to explain. They could be proof for the use of certain room as

¹⁴⁵ See plan from Chirilă et alii, Fig. 28

¹⁴⁶ After also Landes-Gyemant, Gudea 2001, 143, Abb. 11.

¹⁴⁷ Gudea 1997b, 45.

¹⁴⁸ See Chirilă et alii 1972, 26.

¹⁴⁹ Beside coins, five lead pieces were also discovered in one of the rooms, Chirilă et alii 1972, 26; Gudea 1997b, 46. They were considered, probably fairly, standard weights, thus suggesting a different function of the rooms flanking the courtyard, see Stanciu 1985, 224.

¹⁵⁰ Gudea 1997b, 46.

¹⁵¹ See Macrea et alii 1969a.

¹⁵² The distance between the openings axes is considered of 3.50 m, probably except for the central one which could have been even larger, after Landes-Gyemant, Gudea 2001, 144.

¹⁵³ Gudea 1997b, 46, 48.

¹⁵⁴ After Chirilă et alii 1972, 26.

seats of army collegia. Their plan inside the forts, be they separated or not, consists of a non-compartmented structure, usually apsidal (see *infra*). Often, *collegia* seats were located on the back side of the headquarters building, the classical model being the fortress from Lambaesis¹⁵⁵.

An *aedes* sized 4.80 × 5.70 m is located on the building axis with no apse or outwards projection. In the middle of the room, a stone and bricks trestle with base sizes of 0.95 × 0.95 m was identified, fulfilling a role of statue or trophy base¹⁵⁶, unique according to our knowledge.

The headquarters building has hence a regular plan, in western provinces occupying 3.7% of the total surface of the fortification, a percentage often found with the forts occupied by *peditatae* troops (see *infra*)¹⁵⁷.

Praetorium

The commander's house (fig. 3) was identified in *latus dextrum*, having classical plan and sizes, of Mediterranean house type and a series of rooms placed around a central courtyard. The construction sized 31.00 × 28.00 m is at almost 10.00 m from the headquarters building and at 14.00 m from the western enclosure wall. The area of 868 m² occupies 3.89% of the total fortification surface, similar to that occupied by the headquarters building.

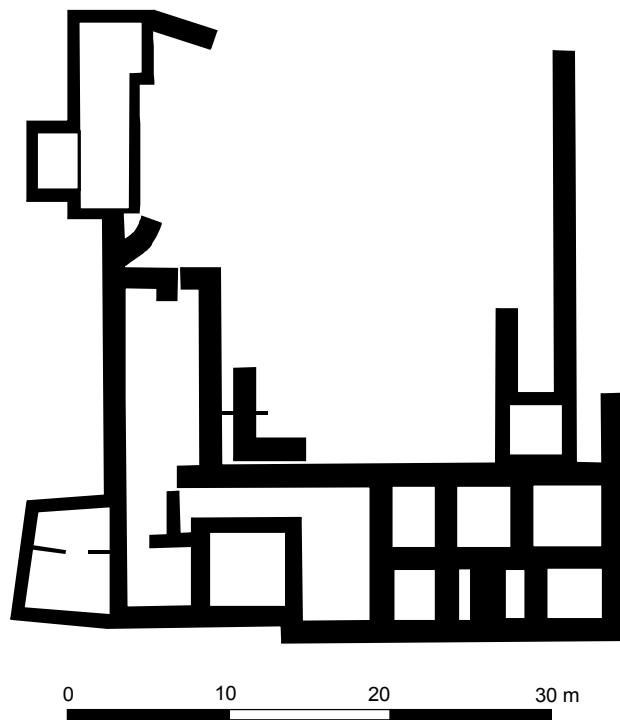


Fig. 3

It is obvious that the entrance into the building was made from *via principalis*, where a wall, parallel to the building wall and along *via principalis* carried, as mentioned, the colonnade of a porticus lateral to the main road. Only on the side from *via principalis* all compartments were unearthed. It also seems to be the most interesting part of the building since along this side there are two rows of unequal sized partitions. From all the compartments, one occupies a larger surface, and its depth is similar to that of the entire southern side. Room H to which I make reference is sized 6.00 × 8.00 m and is located almost in the middle of the south/east side of the building, somewhat closer to the western extremity of the construction¹⁵⁸. Considering the location of this compartmenting, it is rather obvious that at least its initial role was that

of courtyard-entrance for access to the inner courtyard. Its frontal wall is not perfectly aligned to the face wall of the building, but protrudes to the exterior by 0.25 m.

The pavement of the compartment was made of cobbles. A very similar entrance, as location and size, is found on the short side from *via praetoria* of the South Shields fort, being

¹⁵⁵ Petrikovits 1975, 78.

¹⁵⁶ After Gudea 1997b, 47.

¹⁵⁷ For a short presentation of the percentage occupied by *principia* within the forts, see Haalebos 1977, 81–2 or for Dacia, Stanciu 1985, n. 18.

¹⁵⁸ Chirilă et alii 1972, 28–9.

more clearly identified as a small ‘entrance-court’ including with a small surrounding portico (fig. 4)¹⁵⁹.

At a certain point, elements of *suspensura*¹⁶⁰ were placed on this pavement, and as such the purpose of such division changed. In this stage of transformation, it is still unclear where the entrance into the building was located, unlikely to have remained on the side from *via principalis*, considering that two rows of rooms existed there.

To the east of the entrance, there are eight compartments grouped on two rows, in the part from *via principalis* being five, the ones from extremities (L and P)

being of larger sizes: 3.00 × 3.25 m (L) and 3.00 × 3.00 m (P). The three spaces of similar depths between the extremities are approximately 1.00 m wide only¹⁶¹. The function of such compartments, especially of those very narrow is hard to establish and seem to be upon sizes, the storages of adjacent rooms. Only the relation between the room from the south/east corner of the building and the neighbouring west one is clear¹⁶². The three rooms facing the courtyard have approximately equal sizes of 4.00 × 4.00 m, all being heated with the aid of a common heating system. The position in the building corner and the three small-sized compartments that might have been storage rooms may indicate the kitchen function of such spaces¹⁶³, while the heating system, theoretically characteristic to permanent occupation, was introduced probably at a later date. However, the way that the rooms communicated in-between proves the private residential character of the building.

West to the entrance there is another series of two adjoined rooms (E, G, C, D) with closer, yet different sizes. Building G of c. 6.00 × 4.00 m from the courtyard is the largest while the smallest is building E of 2.50 × 2.50 m, probably providing access from the rooms on the southern side to the ones on the western side, since it had no direct entry from the courtyard. Except for this small compartmenting, all the other rooms were heated by a system comprising a channel and *suspensurae*¹⁶⁴.

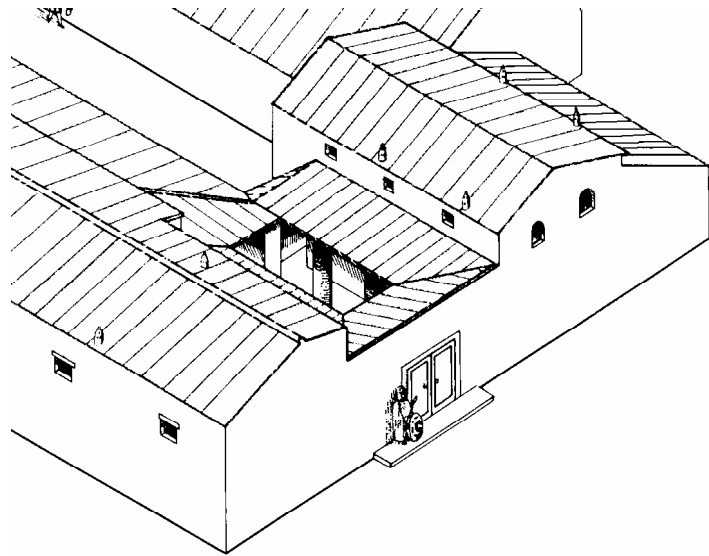


Fig. 4

¹⁵⁹ The sizes of this courtyard are of c. 7.50 × 6.00 m, almost identical with those of the compartments from Buciumi, see Hodgson 1996, *passim*, Fig. 12.3.

¹⁶⁰ The fact is surprising, the location of the hypocaust bricks being rather odd, directly on cobbles, yet several such *suspensurae* located at c. 30 cm one from another were discovered, after Chirilă et alii 1972, 29. However, the construction system of the heating scheme is not unitary thus proving its later making.

¹⁶¹ After Chirilă et alii 1972, 29.

¹⁶² In the wall of the two partitions an ‘orifice of 0.40 m diameter, made of bricks’ was discovered, Chirilă et alii 1972, 29.

¹⁶³ In similar position within the commander’s quarters from Housesteads a rooms group was also investigated, apparently located on two rows as well, defined as kitchens, see Johnson 1987, Abb. 102.

¹⁶⁴ The walls facing the courtyard in this building part are 60 cm wide, comparative to those of the building of 80 cm, after Chirilă et alii 1972, 27–8.

In the western side of the building, a room of large dimensions of ca. 10.00 × 4.75 m, also heated by a mixed system including a channel and parts of *suspensura* was uncovered¹⁶⁵. What could be the role of such large room? A similar space in size and position (close to *via sagularis*) was identified as well on one of the residence sides from *praetentura sinistra* of the fort from South Shields, yet based on the gravel pavement it was characterised ‘almost certainly’ as a stable¹⁶⁶. This could have been the initial function of the similar building from Buciumi, while its use was changed during a subsequent period, like the case of the entrance area.

The sizes of the courtyard are difficult to establish since only two sides of the building were almost entirely researched. Inside the courtyard, only one L-shaped wall may be distinguished, with one of the sides almost attached to the inside wall of building F, so it is hard to believe that it was part of a *stylobat* contemporary with this building partition¹⁶⁷. Nevertheless, for instance at South Shields, where constructional details of a residence are known, the peristyle is at certain moment divided on one of the sides, being practically discontinued in this part¹⁶⁸. Hence, since there is no different explanation for the function of this wall, at Buciumi it would be also possible to enlarge room F and discontinue the portico in this part.

Subsequently, during the 3rd century AD, a series of compartments that would occupy spaces beyond the back line of the building and a small annex near the south corner would be added. The annex, which would block *via sagularis*, is divided in two compartments of 4.50 × 3.50 m, respectively 4.00 × 2.75 m, both heated by brick canals¹⁶⁹. The sizes of such spaces are similar to the two compartments forming the latrina from the *praetorium* at South Shields, measuring together 6.60 × 2.73 m, meant here for a maximum of seven individuals¹⁷⁰.

The walls of certain rooms, later additions, are 0.60 m thick, the stones being bound only with earth, while these buildings have 0.85 thick walls made of stone and bricks. The extra part in the north/west of the headquarters building comprises several compartments of relatively smaller sizes¹⁷¹ and has walls of 50 cm made though of stone bound with mortar. All the compartments had heating installations and, due to the discovery of numerous pipe parts, it was defined as a small bath meant for a restricted number of individuals¹⁷². The building was considered different compared to the commander’s house, as being building C4¹⁷³, yet its plan suggests the private character of the structure belonging probably to the commander’s residence.

Horrea

In the fort at Buciumi two rectangular buildings with thick stone walls were identified in *latus sinistrum* and, according to their shape and location, were considered *horrea*¹⁷⁴.

¹⁶⁵ Chirilă et alii 1972, 28.

¹⁶⁶ After Hodgson 1996, 137. Similar to the headquarters building from Housesteads, see Johnson 1987, Abb. 102.

¹⁶⁷ *Contra* Isac, Hügel, Andreica 1994, 44 who consider it as probable part of the courtyard peristyle.

¹⁶⁸ See Hodgson 1996, Fig. 12.3.

¹⁶⁹ Gudea 1997b, 58.

¹⁷⁰ In one of the rooms a ‘millstone-grit basin’ was discovered *in situ*, Hodgson 1996, 40, Plate 10.

¹⁷¹ The rooms were named a (4.50 × 2.75 m), b (3.00 × 2.75 m), c (2.50 × 3.50 m), d (3.00 × 3.50 m), after Chirilă et alii 1972, 30.

¹⁷² See Chirilă et alii 1972, 31, n. 40.

¹⁷³ Chirilă et alii 1972, 29–31.

¹⁷⁴ After Chirilă et alii 1972, 26–7.

Since postholes were identified in the area, N. Gudea supposes that two *horrea* made of timber initially existed¹⁷⁵. The first of the constructions, having walls of 75 cm thickness, is located at 13.70 m from the headquarters building and is sized 25.30 × 12.80 m, occupying a surface of 324 m². On the west side, close to the north-west corner of the building, there were identified two compartments of ca. 3.30 × 2.30 m, respectively 3.95 × 2.30 m¹⁷⁶. The wall closing these compartments to the west, parallel to the western wall of the building, seems to run north and south, hence the existence of other divisions is obvious. The thickness of these compartments wall is the same with that of the building other walls, assuming they were made based on the same technique. Hence, it is not excluded that such compartments were part of the initial building plan, especially since the distance between this construction and the headquarters building is rather great, therefore there was enough space so that this side would comprise partitions. Not the same may be argued about the opposite side located at only 2.30 m from the neighbouring building. Or, on this side also, divisions might have existed inside the building, to the west of the eastern limit of the construction where archaeological diggings were incomplete.

Although the position and sizes of the building indicate its use as *horreum*, the existence of the partitions and the lack of buttresses attached to the lateral walls may suggest a different use¹⁷⁷. However, even though the walls of the building are rather thick, they pertain to the lower limits comparative to other *horrea*¹⁷⁸. The building has is pretty large and has an impressive width and a surely massive roof, hence buttresses were absolutely necessary at least on the long eastern side where no compartments were found. Should any compartments have existed, then the building would have become one and the same with a central space delimited on two sides by compartments. Such buildings may have various functions—from storage rooms to hospitals¹⁷⁹. Another function of the building is suggested by the identification of a 30 cm wide brick channel, crossing the wall on the short northern side of the building in the middle¹⁸⁰. Moreover, post-holes required to support the floor, heightened in the case of granaries, were not observed inside the building¹⁸¹, like the case of the building near the gate *principalis sinistra* (see *infra*).

Additionally, if both buildings located in *latus sinistrum* are *horrea* they would have occupied a total surface of 3% from the total fort surface, a double percentage compared to the normal¹⁸².

Building (C6) located at 2.30 m from the one described above is 26.00 × 13.00 m and has a total surface of 338 m². Based on such sizes and the existence of numerous buttresses on

¹⁷⁵ Gudea 1997b, 22.

¹⁷⁶ The excavators assert that the three walls perpendicular on the building do not 'attach' to the western wall of the building, assuming they belong to a later phase, after Chirilă et alii 1972, 27.

¹⁷⁷ It is true that digs in the area, especially inside, were on small scale, after Chirilă et alii 1972, 27; Gudea 1997d, 49.

¹⁷⁸ The thickness of the walls was around 0.77/0.90–1.0/1.20 m, see a few comparative measurements at Taylor 2000, 30–1, 59.

¹⁷⁹ The building was defined as storage room in Petculescu 1987, 69.

¹⁸⁰ Due to insufficient archaeological excavations, the purpose of this canal was not determined, see Chirilă et alii 1972, 27.

¹⁸¹ Only one post-hole was identified here, compared to three post-holes in building C6, Chirilă et alii 1972, 27.

¹⁸² In general the percentage is 1.50–2.00%, with few exceptions related to military campaigns or where forts were supply bases at a certain point, see Gentry 1976, App. 1.

the long sides and the short side opposite to the entrance, the construction was identified as *horreum*¹⁸³. The wall thickness is 75 cm as well, yet it is obvious that a roof of such size could not have been carried only on outer walls¹⁸⁴. Therefore, when compared to other sizes, it is certain that structure C6 is in fact a double *horreum*, an additional longitudinal wall being required in the middle of the building¹⁸⁵. The interval between the buttresses on the long sides is 2.80–3.00 m, while between the two on the short northern side is 3.80 m, their projection being of approximately 65 cm.

The entrance into the building was made on the southern side from *via principalis* where in plan a rather pronounced discontinuity of the wall may be observed, withdrawn to the central part of the fort by a few meters compared to the entrance into *principia*¹⁸⁶. The span seems quite odd since access to the granaries was usually made from platforms¹⁸⁷. At Buciumi, the existence of such a platform was necessary since the floor was heightened¹⁸⁸ and covered by the porticus delimiting *via principalis* in this area as well.

Inside the building, the few archaeological diggings performed led to the observation of a few rows of post-pits deemed compulsory for the roof support¹⁸⁹. Post-pits of 25–30 cm in diameter were identified at intervals of 2 m, 4 m and respectively 10 m from the western wall of the building¹⁹⁰. Undoubtedly, they represent in fact the structure which supported the timber floor and most probable, the space between them was of 2 m¹⁹¹.

The position of the double granary in the centre of the fort, close to one of the *portae principales* and the percentage of 1.5% occupied from the total fort surface are normal.

Barracks

In *praetentura*, on both sides of *via praetoria* three barracks each were discovered, while under the bricks and tiles layer was noticed a 50–70 cm ‘thick’ wattle and daub and clay bonding layer¹⁹².

Barracks contemporary to the first phase of the enclosure, although difficult to observe, were identified in *praetentura*, two in *praetentura dextra* and two in *praetentura sinistra*. On each side of *via praetoria*, one of the barracks is double.

Building B1 (fig. 5). The barracks sized 9.00 × 50.00 m is placed *per scamna* in *praetentura dextra* along *via principalis*, with the officer’s room facing *via sagularis*.

¹⁸³ Chirilă et alii 1972, 27.

¹⁸⁴ Discussing the case of a granary wide of 13.80 m from Carrawburgh, D. J. A. Taylor notes that ‘an overall span of 13.800 m being too great for a single truss without intermediate support’, after Taylor 2000, 38.

¹⁸⁵ For a few comparative sizes in forts from Hadrian’s Wall, see Taylor 2000, Table 5.

¹⁸⁶ The span seems to be of c. 3.00 m, see Chirilă et alii 1972, Pl. 3.

¹⁸⁷ See Johnson 1987, 171; Gentry 1976, Fig. 9, 11, 13, 14; Taylor 2000, 32.

¹⁸⁸ In the case of a waterproof floor placed directly on the ground, the existence of stone slabs would have been noticed by excavation. This is the situation in the few cases where the floor is not heightened, see Rickman 1971, 295; Johnson 1987, 171; Gentry 1976, 9.

¹⁸⁹ After Chirilă et alii 1972, 27.

¹⁹⁰ For the discussion referring to the useless of such inner posts for the roof support, see Manning 1975, 109.

¹⁹¹ Examples of stone granaries with floors supported by posts are the late ones from Birdoswald, although small intermediary stone walls, necessary to support the floor, were identified, see Taylor 2000, 61. The interval between the posts is rather large, even that of 1.30 m from Birdoswald being considered larger than expected (after Taylor 2000, 61), although the average is 1.50 m or c. 5 Roman feet, see Manning 1975, 106, Chart 1, 2.

¹⁹² Chirilă et alii 1972, 21–2.

Since the barracks has a veranda in the opposite part of *via principalis*, the officer's quarters is projected in this part as well. The officer's quarters has an initial size of approximately 8.00×8.50 m with a surface of 68.00 m². Its surface is rather small especially since between *contubernia* and the officer's quarters

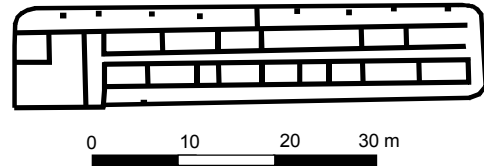


Fig. 5

an intermediary area also existed, probably a corridor of almost 1.00 m wide located transversally to the centurion residence. However, the area occupied by the officer's quarters represented only 20% of the total habitable area of the building¹⁹³. The rest of the officer's quarters compartments are unclear, although wall traces were identified. The subdivisions inside the *contubernia* are also unclear, yet it is probable that beside those noticed during excavation, other may have existed, so that spaces corresponding to a *contubernium* might have been created. 11 *contubernia* with *papilio* and *arma* of approximately 3.50×3.50 m are presumed.

The rather large width of the structure is influenced without doubt by the existence of the central longitudinal corridor along the rooms, as intermediary space between *papilio* and *arma*. This corridor is specific to this construction since its existence is very rare, found in only a few forts from other provinces (see *infra*) and being rather a characteristic of civilian houses than of barracks.

Should we subtract the surface of the centurion building, the longitudinal corridor and the veranda, the surface occupied by *contubernia* becomes of 231 m² and sized 42.00×5.50 m¹⁹⁴. Even though the space occupied by soldiers was relatively small, they had almost 80% available from the total habitable surface of the structure, while regularly, a maximum of 70% from the building was destined to such area¹⁹⁵. *Papilio* and *arma* are divided longitudinally in equal divisions.

The plan of the building changes in an early phase named 'phase 1b', a single row of rooms and a deepened veranda being identified only. The officer's quarters increases its length and by the opposite end from *via praetoria* a compartment is erected on the entire building width, while the veranda is not continuous up to the structure end. As such, once the troop was changed, the plan and constructional technique of the barracks completely changed as well¹⁹⁶. The barracks type similar to that in 'phase 1b' is framed by D. Davison in type A, comprising special *contubernia* of J or I type¹⁹⁷ placed on the opposite end of the officer's quarters, the distinction being that a single row of rooms existed here. The depth of the buildings is of almost 3.70 m. In this form, the plan of the building is not characteristic to a barrack since there is no *arma*, yet similar constructions, with barracks characteristics were identified at Haltern, Rödgen, Walheim, Hod Hill, Baginton, The Lunt, Iža Léanyvár or even Potaisa¹⁹⁸.

¹⁹³ For proportions see Davison 1989, Tab. XXII.

¹⁹⁴ Usually *contubernia* occupy a surface of 125 – 550 m² clustering around the value of 325 m² (after Davison 1989, 7), hence barracks B1 inscribes in general standards.

¹⁹⁵ See Davison 1989, 101. It is true that here the surface occupied by the veranda was also taken into consideration.

¹⁹⁶ Gudea 1997b, Fig. 19 or Landes-Gyemant, Gudea 2001, where a chronological presentation of the barracks is made.

¹⁹⁷ Regarding the use of this generally small sized area, see Davison 1989, 172–4, Fig. D.

¹⁹⁸ With certain barracks, the large sizes of the compartments make probable the existence of a separating wall. However, the barracks of the type were considered to belong to lightly-armed soldiers or are only temporary, being erected to serve only for a short time span similar to the tents in the march forts, compared to the provisional and small sized *principia* from Inchtuthill, see Kortum, Lauber 2004, 382–90, Abb. 177. Nonetheless, we wonder for instance, why should it require a veranda if it was only a provisional building?

During a different phase of the barracks (phase 2), around the timber building a stone wall fulfilling a role of *stylobat* is being built¹⁹⁹. There is no analogy that would confirm the functionality as barracks of a timber building surrounded on all sides by a veranda, therefore I believe that it may not be excluded that respective wall might have been in fact the exterior wall of a barrack, erected from timber walls whose posts were placed on a stone base. Considering numerous revetments and repairs in the area it is hard to distinguish which of the compartments belonged to this last occupation phase.

Building B2 (fig. 6) located *per scamna* close to the above describe barracks, is double, sized 19.00 × 50.00 m with a surface of 950 m². An additional novelty of the barracks from Buciumi is that the two building placed back-to-back have no similar plan. The barracks facing building B1 appears under the form of three longitudinal rows, several partitioned²⁰⁰.

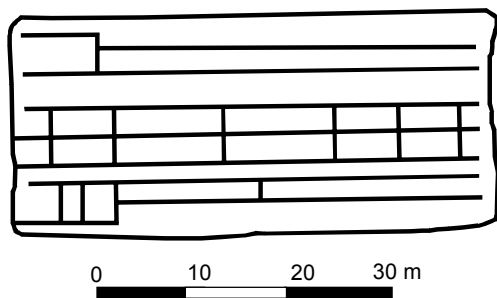


Fig. 6

Only from the plan it is difficult to approximate sizes, yet we may notice that the first longitudinal wall does not extend from one end of the barracks to the other, intersecting towards *via sagularis* a transversal wall which seems to be part of the outward projection of the officer's room. This projection is by less than 1.00 m outside the line of the longitudinal wall. The veranda should have been placed in the eastward extension of this projection,

yet there would have been too many room rows. In theory, a double barracks would have normally comprised four parallel rows of compartments or two rows of *contubernia* divided into *papilio* and *arma*. Since all of the room rows are rather wide, of approximately 3.00 m, it would be appropriate to consider the first longitudinal division as the veranda, since it is 2.00 m deep, although it should have been located in the extension of the outer wall of the officer's room. Another argument would be that no transversal compartmenting was noticed here, although the same happened in the case of the following longitudinal division.

The second adjacent barracks consists of two longitudinal divisions with a corridor in between. The corridor extends, compared to barracks B1, including along the officer's room. The compartments theoretically corresponding to the *papiliones* are identical with those on the back side of the adjacent building, including in the area of the officer's room. Behind the corridor, traces of a single partition wall were identified.

The total sizes of the double barracks are 19.00 × 50.00 m, the space being divided longitudinally equally for each building. The *contubernia* of each barracks occupies approximately 40.00 m of building length, hence a percentage of almost 70% of the total surface²⁰¹. Or, the barracks plan is uncertain and therefore, any calculation may be erroneous.

During phase 1b of the double barracks, the two adjoined buildings exhibit a similar plan, having each only a row of rooms and as in the case of building B1, during the phase named 1b, the officer's room of the southern barracks is slightly longer compared to the first. It is interesting that during the first two existence phases of the barracks, the northern structure has a shorter officer's room, initially by almost 1.00 m and by almost 4.00 m during phase 1b, compared to the officer's room pertaining to the southern barracks. The general

¹⁹⁹ After Landes-Gyemant, Gudea 2001, 145.

²⁰⁰ See plan in Gudea 1997d, Fig. 19, 2, a or Landes-Gyemant, Gudea 2001, Abb. 16.

²⁰¹ Here the corridor was not taken into consideration, since its existence is uncertain.

plan of the two barracks is not perfectly similar either, and it is obvious that their construction was carried out by two different teams. Nonetheless, it is hard to explain the size difference in the case of the officer's rooms of two adjoined barracks.

During the last occupation period of the barracks, a rudimentary wall of 0.60 m width²⁰² was erected 'around the barracks', representing probably the supporting wall of the timber phase uprights.

The barracks from *praetentura dextra*, during their first occupation phase, belong to type F established by D. Davison, represented by two adjacent barracks halves, the resulting corridor extending on the entire building surface. At Buciumi, barracks B1 is provided with a longitudinal corridor only along the *papiliones* and *armae*, compared to the northern half of barracks B2 which is similar to the type established by D. Davison. It is characteristic in Britannia, to all barracks from the Antoninian fort at Birrens and to other structures from the fortifications at Balmuildy (?), Ardoch, Cardean and Ravenglass²⁰³. The addition of a double longitudinal wall led to a size increase, respectively a width increase of this barracks type, as it may be also observed in the case of those from Buciumi. Since this barracks type is rare, being present on the entire surface of the fort only at Birrens, I do not know which the functionality of the double wall was. Probably, with the mentioned fortification the reasons were of the topographical nature of a sloping land²⁰⁴. I am not familiar either with the reasons for their erection in other forts where buildings of the shape appear only sporadically. Such building was discovered at Cardean as well, yet at the same time, another H type building emerges in the central part of the fort²⁰⁵.

Regarding the plan of these constructions during the first phase, it is interesting that they differ according to the location in *praetentura*, *dextra* or *sinistra*. In other words, the barracks from *praetentura dextra* are characterised by the existence of a corridor of 1.00 m wide between the rows of *papilio* and *arma*, while with those from *praetentura sinistra*, although no compartments had been identified, have both a central axis made of a single wall, hence with no corridor.

The constructional technique is different also, depending on the area, the barracks left of *via praetoria* having lateral walls made of posts placed in individual holes, while with the rest of the barracks the walls are made of posts placed in continuous rows²⁰⁶.

Again, the functionality of the buildings from *praetentura sinistra* cannot be clearly specified since certain compartments were not observed and only a middle longitudinal wall is certain. They were framed in various building types based only on the lack of compartments, the structure from near *via principalis* (B4) being considered hospital, while that in its neighbourhood as *fabrica*²⁰⁷.

However, irrespective of the buildings purpose, the different construction technique of the timber structures from the two halves of *praetentura* indicates different construction teams, belonging possibly to different troops, the first garrison from Buciumi comprising probably several military units or detachments from more than one troop (see *infra*).

²⁰² After Landes-Gyemant 2001, 147.

²⁰³ Breeze 1977, 457; Davison 1989, 72–3.

²⁰⁴ D. J. Breeze and D. Davison argue, quoting the excavators that the double wall may represent an extra-support for the roof ('a pent-house roof') or would have been constructed for better stableness where the land was sloping, see Breeze 1977, 457 and Davison 1989, 73.

²⁰⁵ Davison 1989, 75.

²⁰⁶ Gudea 1997b, 23–4.

²⁰⁷ After Gudea 1997b, 29.

The walls uncovered around the barracks are considered rare and related in one way or another to the timber barracks, being described at some point as fulfilling the role of carrying posts forming a sort of ‘shelter’ or portico around the barracks²⁰⁸. The barracks roof was made of tiles²⁰⁹.

Building B4 (fig. 7). The building located in *praetentura sinistra* along *via principalis* was completely uncovered in 1970²¹⁰.

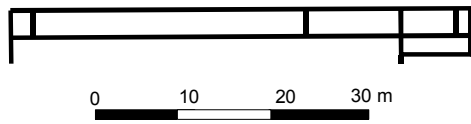


Fig. 7

The archaeological evidence is relatively sufficient since the structure was entirely uncovered. The construction has a rectangular prolonged plan of 9.40×49.25 m in size. Nevertheless, regarding the first constructional phase, the single accurate information

refers to the existence of a structure with wattle and daub walls of 30–40 cm thickness, similar to the walls of barracks B1. The building is divided longitudinally by a longitudinal mid wall, observed as a brown, mortar-pigmented strip²¹¹. During the excavations, ‘transversal walls’ with a thickness between 0.30–0.40 m were also noticed. They divided the building into unequal areas difficult to measure²¹². Based on the provided plan, it is very difficult to imagine the phases’ succession²¹³, which existed without a doubt since there are several construction techniques of the structure walls²¹⁴. On one side, towards *via principalis* a solid wall of 0.80 m with buttresses towards the building is rendered in plan, while on the other hand, the lateral walls and probably the south-eastern wall are represented as walls of only 0.60 m thick without any groundwork. The wall from *via principalis* is identical with the wall located in the north-western limit of the building B1 similar to that described herein, yet located in *praetentura dextra*. This wall is considered to belong to the last phase of building B4²¹⁵, yet is odd that the wall was remade only on this side. Considering the location of the buttresses towards the inside of the building, the wall represents rather the limit of a portico along *via principalis* (see *supra*).

The smaller walls represent, as they probably appear in plan also, a *stylobat*, supporting the poles and timber structure of the building in a later phase. The construction technique is unusual, therefore I believe that the consistent wall from *via principalis* is a later addition or a revetment of the north-western *stylobat*. The longitudinal compartmenting wall is 0.50 m is probably made of clay and, possibly, has timber superstructure²¹⁶. It is interesting that the wall does not reach in the short limit the south-western lateral wall of the building, but stops at

²⁰⁸ Stratigraphically, the walls are considered late since in the north/east part of the building B4, the flanking wall was placed in a layer of burn with mortar, Chirilă et alii 1972, 21–22. Architectonically, the variant of the existence of a small supporting wall for timber poles that would create a veranda surrounding the building is possible, alike numerous old peasant houses from Romania, yet there are no barracks with a veranda on both longitudinal and short sides, according to our knowledge. A sort of ‘shelter’ is used for harbour or protection of certain structures accommodating soldiers, yet they were tents, see Morell 1991.

²⁰⁹ Chirilă et alii 1972, 21.

²¹⁰ Chirilă et alii 1972, 12.

²¹¹ By one of the extremities, the wall ends in ‘T’ letter shape, see Chirilă et alii 1972, 22.

²¹² Gudea, Landes 1981, 252.

²¹³ It was opted for the existence of two phases of the building, without being able to specify each phase accurately, see Gudea, Landes 1981, 252–3.

²¹⁴ See plan in Landes-Gyemant, Gudea 2001, Abb. 17.

²¹⁵ Gudea, Landes 1981, 252.

²¹⁶ It is described as being of ‘battered soil... of grey-brownish colour’, Gudea, Landes 1981, 252; Landes-Gyemant, Gudea 2001, Abb. 17.

approximately 1.50 m from it intersecting with another clay and timber wall parallel with the building limit in this part. The excavators describe this T-shaped 'earth' wall as phase 1b of the building, without having clearly identified the limits of the structure in this phase, except for the short one from *via praetoria*. They were either under the subsequent stone walls, but then why the situation towards *via praetoria* is not similar, or they represent in fact only compartments and therefore contemporary phases of the building whose outer walls were made of a timber superstructure carried on a small stone wall. An additional argument for the contemporaneity of the inside earth (clay) and the timber walls on stone foundation is represented by the existence in the short part of an area which had been formed between the timber transversal wall and the short limit of the building from *via praetoria*, the only one where traces of a wooden floor were identified. Thus a small corridor or a storage room is formed in the part from *via praetoria*.

Should this area have functioned as a corridor, then its role was without a doubt, of an area from where one had access to the upper part of the building or to an upper storey, since a corridor in the corner of the building was useless. However, from what we could learn, a proper base of the staircase could not be identified, although it could have been supported directly by the wooden floor. The space is too small for a storage room, while for dwelling, certainly improper. The same space is also inadequate for other functions, like metallurgical ones.

The planimetry, sizes and position of the building clearly indicate its different use, probably as stable or storage room, rather than hospital as supposed by the authors of the excavations. For now, it would be the single rectangular building non-divided in small similarly sized rooms and with no interior courtyard or central corridor that would belong to the hospitals category²¹⁷.

The shape of the structure may be adequate both to a *fabrica* as well as to a stable and storage room. Burn traces and coal were noticed in the building extremities²¹⁸ and they may indicate a possible metallurgical function. Except that such prints were found—as previously shown—in a 3.20 m diameter pit located in the north-west corner of the building²¹⁹, so they could have been found in secondary position without being contemporary with the occupation phase of the barracks.

Not even the discoveries inside the barracks, 44 coins, a glass vessel and two hand mills could provide clear suggestions on the building functionality²²⁰. Such discoveries indicate rather a dwelling than a building with metallurgical or store room function. In the first monograph of the fort from Buciumi, where numerous items are published, many of them with complete information, a few bronze items are rendered in a plate without specifying their functionality²²¹. They comprise needles, pincers, spoons, a knife blade and other small-sized objects similar to rods of almost 10 cm, the large part being also decorated. Their functionality is hard to establish. Five of the items are pincers, which, alike the remarks of the excavators may be 'toiletries or medical use tools'²²². One of them was discovered in building B4, while the other in buildings B2 and B5. It is hard to believe that such pincers were used by soldiers (since the buildings were not civilian) as toiletries, being useful especially for removal of

²¹⁷ For a short description of the hospitals from fortresses and forts, see Johnson 1987, 179–88.

²¹⁸ Gudea, Landes 1981, 252–3; Landes-Gyemant, Gudea 2001, 147.

²¹⁹ Chirilă et alii 1972, 22.

²²⁰ Chirilă et alii 1972, 23.

²²¹ Chirilă et alii 1972, 81, CX, CXI.

²²² Chirilă et alii 1972, 81.

hair²²³. Pincers as definitely medical tools are those with the grasping end jagged, yet the drawings of the items from Buciumi do not clearly show if the items were of the type. The rest of the bronze objects could have been, at least some of them, used in medicine, like the needle-shaped items, yet flattened by one end²²⁴. Similarly, needless of the presented type appear among medicine tools found in some of the graves within the Empire²²⁵. Comparable is the fragmentary knife also found in building B4, whose blade is edged on both sides. Knives with related blade were found in graves from Gallia Lugdunensis²²⁶. Additionally, two of the six small-sized plates used in the preparation of ointments were identified in building B4, the rest being distributed each in buildings B2, B5, *praetorium* and the last north of building B3.

To conclude, the seemingly medical use items found in building B4 does not necessarily indicate its functionality. Besides, it does not have a plan characteristic to hospitals and similar items were discovered in neighbouring barracks as well, especially in buildings B2 and B5²²⁷.

Under such circumstances, according to which only two building blocks from *praetentura dextra* are known to belong to phase 1b for sure, analogies with other forts provided by one of the excavation authors²²⁸ may be inadequate since, furthermore, *praetentura* has the same sizes as *retentura*. Should the plan proposed by N. Gudea be valid, it would mean that the barracks from *praetentura* would have been 13.00 m, respectively over 20.00 m wide, rather improbable being by minimum 1/3 wider than those from *praetentura*, having at their turn exaggerated widths.

Finally, within the stone enclosure fort at Buciumi, the plan of the barracks remains in principle identical with that in the preceding phase²²⁹. The existence of a longitudinal lateral wall that, like in the case of buildings B1 and B4, might have had buttresses on the inside is hard to imagine²³⁰. As mentioned, this wall with buttresses constructed along *via principalis* corresponds to the one in the opposite part, probably making-up a porticus²³¹.

Even more difficult is to imagine the situation according to which the barracks in the stone precinct fort *praetentura*, although made of wattle and daub would be surrounded with a stone wall, in general of poor quality²³². It is probable that such walls represented in fact a reconstruction of the barracks, still in timber, yet on a stone foundation.

Currently, it may be stated with certainty that only the two buildings from *praetentura dextra* represent barracks. One may not exclude that building B4 from *praetentura sinistra* might have had the same use might have had, yet building B5 from the same area proves to be a *fabrica*²³³.

²²³ Künzl 1983, 18.

²²⁴ See items from Chirilă et alii 1972, CX/7, 9, 13, 15–20.

²²⁵ After Künzl 1983, Abb. 21/37; Abb. 75/9 and Abb. 21/36–38 with straight rod, respectively the curved rod as appearing in Chirilă et alii 1972, CX/8 and 10 as well.

²²⁶ See Künzl 1983, Abb. 51/ 17, 18 yet the blade is of 5 cm, compared to those at Buciumi with c. 9 cm wide blade. In general, the knife blade was extended by both ends in an almond shape, see Künzl 1983, Abb. 51/21–23; Abb. 82.

²²⁷ Medical tools were also discovered inside the barracks, like the case on the same *limes* sector at Ilișua, see Marcu 2006a, *passim*.

²²⁸ Gudea 1997b, 30.

²²⁹ Gudea 1997b, 50–1, Fig. 19.

²³⁰ Gudea 1997b, 50, 51.

²³¹ In Landes, Gudea 1980, 216–7, fig. 7, it is stated that a covered space existed only in front of the headquarters building, although walls ran on both sides of *via principales* on its entire length.

²³² After Gudea 1997b, 50–1.

²³³ Regarding the building, N. Gudea has contradictory opinions, framing it either in the workshops category or that of barracks, Gudea 1997b, 29, 50, 70.

Building B5. The plan of the building (fig. 8) located in the middle of *praetentura sinistra* appears as a construction surrounded by a wall. The outer wall of the building surrounds a surface of 950 m², the total sizes of the building being of 50.00 × 19.00 m.

At first sight, the structure could be considered a double barracks upon sizes, yet inside this enclosure, another rectangular structure was identified and its walls are at an equal distance of c. 3.00–4.00 m from the outer wall, except for the east side where the interval is larger—of c. 7.00–8.00 m.

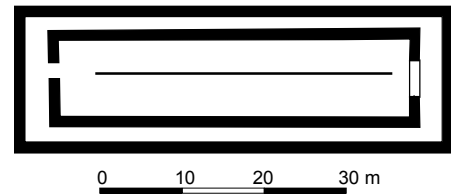


Fig. 8

Therefore, the structure seems to be a *basilica* with two lateral aisles. The central space is sized 38.00 × 10.90 m. Yet, although a building of this type should be monumental, the walls, both the outer as well as the central aisle walls are superficial, of c. 0.60 m widths, the first being identified by diggings under the shape of two-three rows of overlaid stones²³⁴. Regarding the structure inside we find only that it was a ‘stone construction’²³⁵, probably with more solid walls. As such, the enclosure wall fulfils probably the role of *stylobat*, supporting columns or stone poles, the central aisle being higher than the rest of the construction²³⁶. It is hard to specify the function of the larger space between the outer wall and that of the main aisle from the east end of the structure, the created interval being rather large for a portico, however the entrance was theoretically in the opposite end of *via praetoria*.

A 35 cm wide and 25 cm deep stripe was noticed on the long axis of the construction, alike with building B4 and the phase to which it belonged could not be specified. The residential character, at least during a certain occupation stage, is proven by the existence of four large fireplaces on the same line inside²³⁷.

On the other hand, the fireplaces were put in connection with a *fabrica*²³⁸. As mentioned above, the establishment of this building functionality is uncertain. Large-sized halls compartmented in three longitudinal parts were also discovered in Britannia. T. Wilmott argues that this construction type, emerging in the *praetentura* of the forts from Birdoswald and Caerleon, had a role of *basilica exercitatoria*, similar to those ‘exerzierhalle’ usually placed in front of the headquarters building (see *infra*)²³⁹. The plan of the buildings from the forts in Britannia is similar to that from Buciumi, except that the central aisle is represented by two parallel rows of columns, the total sizes of the buildings being of 42.78 × 1605 m at Birdoswald, respectively ca. 50.00 × 24.50 at Caerleon, the latter being much more closer to that of Buciumi fort.

²³⁴ Chirilă et alii 1972, 23.

²³⁵ Even the plan, renders differently the hatch of the two walls (Chirilă et alii 1972, 23, Fig. 26), hence we supposed a different consistency of the walls.

²³⁶ For the discussion referring to the height difference between the central aisle and the lateral ones, see Walthew 1995, *passim*.

²³⁷ There are no further remarks on such fireplaces (Chirilă et alii 1972, 23), yet the fact that they are placed on the same line indicates the existence of compartments, probably of an earlier barracks, yet not identified by digs. From this phase may also come the cart ornament found ‘in the natural soil’ (Chirilă et alii 1972, 23, pl. LXXXVII).

²³⁸ Gudea 1997b, 29, 70. Or that the ‘barracks’ was used only partially as workshop, after Landes-Gyemant, Gudea 2001, 147.

²³⁹ Wilmott 1997, 581–6. The general sizes of the building from Buciumi are similar to those of *basilica* type constructions from the Empire, see for comparison Walthew 1995, Table A, B, C.

Other buildings

A room sized ca. 12.50 × 4.00 m with three subdivisions would be erected over the north-west corner of the *praetorium* and partially over building B8 from *retentura* during the 3rd century AD there²⁴⁰. On the south-eastern side, this construction has a small brick-made apse similar to a basin. All compartments are provided with heating installations. The construction, supplemented with other rooms, functioned most probably as a small bathsuite²⁴¹—obviously in relation to the neighbouring commander's quarters.

Two buildings named C1 and C2 shall be constructed in the fort at Buciumi over *via sagularis*, and partially in *agger*, approximately on both sides of gate *praetoria*. Their sizes of 15.00 × 8.00 m (120 m²), respectively 28.00 × 7.50 m (210 m²) and rudimentary walls 0.75 m thick do not help in establishing the building functionality. In both buildings, the occupation layer is very rich, being characteristic to that from a barrack, therefore they could have had a residential role. Their rather late dating is ensured by the three coins found here, dated c. AD 220.

Troops

During the first phase, the fort might have been occupied by *coh. I Augusta Ituraeorum*.²⁴² Yet, the single evidence is a tile stamp and an inscription fragment, hence the presence of the cohort here is uncertain.

The troop is initially attested in the diplomas from AD 80 (CIL XVI 26), 98 (CIL XVI 42) and 102 (CIL XVI 47) in Pannonia. Subsequently, it is mentioned in Dacia by diplomas from AD 109 (RMD IV 226), 110 (CIL XVI 57 = IDR I, 2) and 114 (RMD IV 226), then in each diploma of Dacia Superior starting with those from AD 136/138 (Petolescu, Corcheș 2002) and 144 (CIL XVI 90). Beside the one from the fort at Buciumi, tile stamps of this troop also appear at Porolissum²⁴³. The troop, although considered by some as *milliaria*²⁴⁴ is only *quingenaria*, probably *equitata* considering that it comprised *sagittarii*²⁴⁵. The fact is probably confirmed by the subsequent movement of the troops, *coh. II Augusta Nervia Pacensis Brittonum*²⁴⁶, *milliaria* and *peditata* being transferred at Buciumi. On the other hand, the remained free space, in case any was left, would have been occupied by other detachments of the military units attested probably in an early phase at Buciumi. Hence, a bronze appliqué bears the name of a centurion of *C(ohors) I B(rittonum) / (centuria) ARTE(-midorii, -misii) / CRINCA*²⁴⁷ and two bronze plates mention the name of certain soldiers from *coh. I Hispanorum* and *coh. I Flavia Hispanorum* (see *infra* on the forts from Românași and Orheiul Bistriței).

Therefore, within the first phase fort, there was enough space for other garrisons, which N. Gudea considers to have consisted of *coh. I Ulpia Brittonum* (for the troop see *infra*: Porolissum), as proven by the bronze appliqué referencing the abridged name of the troop, C I B. Considering that this troop was in the area, one may not totally exclude the possibility

²⁴⁰ Gudea 1997b, 58–9.

²⁴¹ The archaeological material including proves the existence of a thermal complex, see Gudea 1997b, 59.

²⁴² See Chirilă, Gudea, Lucăcel, Pop 1972, 117–8; Gudea 1997b, 25.

²⁴³ See Chirilă, Gudea, Lucăcel, Pop 1972, 117, pl. 139.

²⁴⁴ Gudea 1997b, 25. The diploma dated in 20.02.98 (CIL XVI, 42) granted to this troop obviously makes a mistake when including the troop among *alae*, evidenced by the fact that the diploma is granted to an *expedita* of *cohors I Augusta Ituraeorum*.

²⁴⁵ Nonetheless, the quality *sagittariorum* does not necessarily involve the existence of cavalry detachments.

²⁴⁶ Gudea 1997b, 33.

²⁴⁷ Gudea 1977, 130, no. 3.

that Buciumi garrisoned one/more centuries, yet I believe that the completing *c(ohors) I B(ritannica)* is also a possible reading of this abridgement. Although numerous, I am not familiar with any stamp of the troop of Britons bearing the abridged CIB, while, all the stamps of troop *I Britannica*, quartered at a certain point at Cășeiu, display this abbreviation (see *infra*). It is true, though, that the CIB abbreviation could be due to the restricted space on the bronze button only.

We have no proof that the unit *coh. II Augusta Nervia Pacensis Brittonum* ∞ was established at Buciumi around AD 114²⁴⁸, on the contrary, all available data lead us to believe that it reached Buciumi probably by the end of Hadrian's reign, probably related to the movements of the people in the period.

The troop is registered in the diplomas of AD 105 (Pferdehirt 2004, no. 10) and of AD 99 and 110 (RMD 21, note 2) in the army of Moesia Inferior and then, in AD 114 (CIL XVI, 61; RMD 87) as part of Pannonia Inferior army. In Dacia Porolissensis it is attested for the first time in the diplomas from AD 131 (Weiß 2002, no. 5) and 135²⁴⁹. J. Spaul makes a confusion when argues that this cohort appears mentioned in the diploma from AD 139 (CIL XVI, 175)²⁵⁰.

The second cohort of Britons transferred to Dacia Porolissensis in the fort at Buciumi between AD 114 and 131 remains here during the entire 3rd century AD, probably until the end of the Roman control in the area, being attested by inscriptions with the epithet *Antoniniana*²⁵¹.

3. CĂȘEIU

The fortification from Cășeiu is located at c. 300 m from the current course of river Someș, on its right bank, in the place named 'Cetățele' (pl. 5). It is part of the northern sector of the Dacian *limes* between the forts at Tihău to the west and Ilișua at east, located at distances of approximately one day of march.

Beside epigraphic mentions²⁵² the first concrete data on the location and sizes of the fort come from the end of the 19th century²⁵³. The first archaeological excavations are carried out in 1928–1929 under the supervision of Em. Panaitescu, aiming firstly to unearth the enclosure walls, towers and gates²⁵⁴. The most important results consist, without a doubt, in the publication of the topographical plan of the fort²⁵⁵, the indication of two troops from Britannia and of two phases of the precinct—one in timber and the second in stone. Archaeological diggings would be resumed only in 1980–1981²⁵⁶, and subsequently, after 1986²⁵⁷.

²⁴⁸ After Gudea 1997b, 27, 31.

²⁴⁹ Eck, MacDonald, Pangerl 2004.

²⁵⁰ Spaul 2000, 201.

²⁵¹ Gudea 1997b, 52.

²⁵² The area was initially attractive especially due to the inscriptions which surfaced (CIL III 822; CIL III 827 = 7633; CIL III 828; CIL III 830 = 7631; CIL III 831; CIL III 7630; AE 1957, 331), large part being known due to their reuse in the Medieval castle of Haller located at c. 2.5 km and the Medieval church from Vad, mentioned especially by C. Torma and then Th. Mommsen or C. Daicoviciu, see Torma 1864, 34 sq.; Daicoviciu 1932, 60.

²⁵³ See Kádár et al 1901, 203.

²⁵⁴ For short site reports, see Panaitescu 1929; Panaitescu 1929a.

²⁵⁵ See Isac 2003, Fig. 1.

²⁵⁶ See Piso et alii 1983.

²⁵⁷ For the entire history of excavations and the results of the archaeological campaigns from 1986 to 2002, see Isac 2003, 21 sqq.

The existence of the fort as early as under Trajan reign is very probable²⁵⁸, its sizes of 165.00 × 165.00 m (2,72 ha) being slightly unusual, yet both troops *coh. II Britannorum* and *coh. I Britannica* that seem to succeed are *milliariae* and probably *equitatae*. Regarding the sizes, most numerous analogies are found among the forts of *alae quingenariae*²⁵⁹.

The traces of the enclosure or more precisely of the first phase fort ditches were identified on three of the sides (E, S, V), on the southern side, for instance, being traced three ditches belonging to the first phase²⁶⁰. During both phases, the precinct follows in principle the same route, being slightly larger during the stone phase when a wall of 1.25–1.35 width existed²⁶¹. It is difficult to understand how could have an *agger* of the stone precinct and buttresses supporting probably the precinct wall and/or the patrol road existed at the same time²⁶². These buttresses are placed at 5.00 m intervals with a c. 1.25 m projection towards the inside of the fort. The author of the excavation argues the precinct wall and *agger* were contemporary, maintaining that the space between the buttresses was backfilled only during a subsequent phase, as a result of a late occupation of the rampart²⁶³. As such, the role of such buttresses must have been to support the precinct wall placed over a ditch from the initial phase²⁶⁴.

The fort roads are approximately equally sized, with 1.00 m differences depending on their importance. Thus, *via sagularis* is 6.00 m wide, *via praetoria* is 7.00 m wide and *via principalis* is 8.00 m wide²⁶⁵.

If during both main existence phases of the fort, the enclosure was located on the same route, then *praetentura* was c. 50.00 m deep, the central part was c. 45–47.00 m (with the commander's quarters enlarged) and *retentura* 25–27.00 m only. Differences are rather great, especially since usually *praetentura* has depths comparable with those of *raetentura*, if not even smaller. In this part was located the single part of the precinct from the initial timber-and-earth phase which was not identified. Therefore, I do exclude the possibility that the fortification was initially smaller. Another argument resides in the percentage occupied by the headquarters building compared to the fort sizes²⁶⁶.

The headquarters building is not exactly on the *via praetoria* and *porta praetoria* axis, being displaced by few meters to the east²⁶⁷.

Principia

The headquarters building from Cășeiu (fig. 9) was uncovered in most of the part by Em. Panaitescu prior the Second World War. The construction is sized 30.00 × 25.50 m

²⁵⁸ The fort was divided in two main phases, Cășeiu I and Cășeiu II depending on the way the Romans erected the enclosure, see Isac 2003, 59.

²⁵⁹ See for instance the forts from Inveresk or Carzield, Breze, Dobson 1969, *passim*. See above on the fort at Bologa.

²⁶⁰ Isac 2003, 62–3.

²⁶¹ For dating the stone enclosure during Caracalla, see comments in Isac 2003, 79–80.

²⁶² See for the significance of buttresses Christescu 1937, 136, n. 1.

²⁶³ After Isac 2003, 74. Compared to the forts on Olt river where such buttresses are found as well, no rampart is signalled, see Vlădescu 1983, 102 sq.

²⁶⁴ Isac 2003, 76.

²⁶⁵ Isac 2003, 83, 96.

²⁶⁶ A counter-argument is represented by the buttresses attached to including the northern enclosure walls. Should the reason for their construction be, as maintained by the excavator, that of supporting the wall, subsequent its construction over a prior phase ditch, then they would not have been required on this side in the case that the northern side would have been displaced to south.

²⁶⁷ See plan from Isac 2003, Fig. 2.

(765 m²), being erected directly into stone. It lies over 2.80% of the fort surface, some of the smallest values from Dacia, comparable to those from Gilău (phase 2, 3), more reduced than those from Inlăceni (2,20), Titești (1,90), Tibiscum (1,87) or Porolissum (1,26). Except for the fort at Inlăceni, where the first inner courtyard does not seem to be taken into consideration, although *principia* must have been larger, the rest of the forts are probably fortifications initially small-sized, the situation being certain in the case of Gilău, yet not clear enough in that of Tibiscum.

Hence, I believe that it may not be excluded that the fortification from Căței was initially smaller, therefore with a more depth reduced *praetentura*, although it had fairly large depths of c. 50.00 m²⁶⁸.

The building is typical, the excavator framing it in type II established by R. Fellmann: a construction with two open courtyards, or, probably, of type 3 with the second courtyard covered. More recent excavations identified tiles and they could have been extracted during the excavations from 1928–1929, hence D. Isac considers that most probably, the second courtyard was also open²⁶⁹. Yet in this case, the rather solid posts bases from between the first courtyard and basilica, would have been useless.

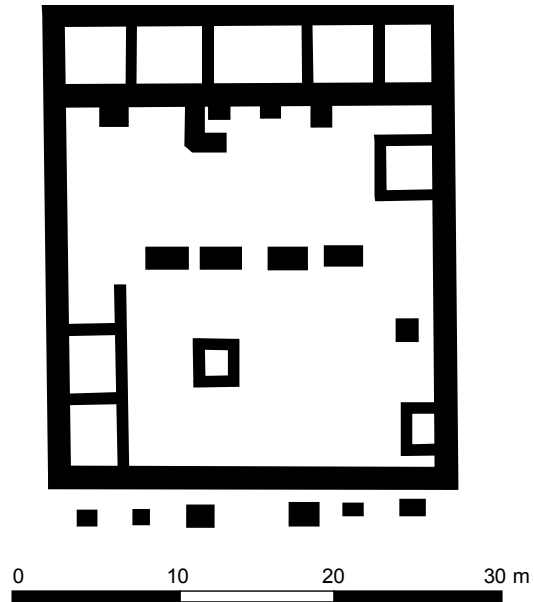


Fig. 9

The construction façade is withdrawn by a few meters compared to *via principalis*, a sidewalk²⁷⁰ or a paved portico being in front of it. Behind this pavement, towards *via principalis*, six solid pole bases were observed, the two placed on both sides of the entrance being 2.50 × 1.25 m, respectively 2.30 × 2.10 m large²⁷¹. As such, the porticus in front of the entrance must have been heightened. The distance between the posts bases is 1.60–1.70 m, usually the *intercolumnium* being of 2.50 m²⁷², depending on the portico height.

The entrance has an impressive span of 4.25 m being placed on the *aedes* axis.

The northern wall of the headquarters building, 0.80–0.90 m wide, is solid enough compared to other existent compartments on both sides of the first courtyard.

The different construction technique makes the author of the excavations consider that such compartments belonged to a subsequent repairs phase of the building²⁷³. Evidently, it is possible, yet in this case, the depth of the portico surrounding the court—of ca. 7.00 m,

²⁶⁸ The author of the excavations maintains the existence of a timber-and-earth precinct reconstructed of stone on the same route (Isac 2003, 62–3), yet the ditches corresponding to the northern side of the timber phase were not identified.

²⁶⁹ After Isac 2003, 121.

²⁷⁰ Isac 2003, 122.

²⁷¹ The other bases are c. 1.25 × 0.85 m or 1.40 × 0.90 m. In the case of the first, the trace of the stone block from the post elevation, sized 0.70 × 0.80 m, was also noticed, after Isac 2003, 122.

²⁷² See Taylor 2000, 38.

²⁷³ Nonetheless, in the case of the tribunal from the basilica, the construction technique is also different, yet their contemporaneity is proven by the fact that the walls are ‘bonded together’. In the case of the compartments delimiting the courtyard, the walls abutting to the outer wall may be observed, Isac 2003, 122.

would be too great. Hence, the six compartments, three on each side of the court could be contemporaneous even though the construction technique is different. The fact that the walls are not interconnected, but rather abutting, may undeniably suggest their later construction, yet the time span could have been of only a few days. Not very high and probably without any storeys, the compartments flanking the court did not require very solid walls. Or, it is usually proven that the headquarters building was also erected on stages, its construction starting with the *aedes* area and the back rooms²⁷⁴, therefore the abutting walls do not prove the non-contemporaneity of certain subdivisions and external walls. As a construction with different heights and areas for various purposes, different constructional techniques seem normal.

The first courtyard is sized c. 12.00 × 10.00 m (120 m²) occupying only 15% of the building surface, an extremely reduced percentage considering that usual ratio was around the value of 25%. Obviously, the little percentage of the courtyard is a characteristic found with other headquarters buildings from Dacia, being due to the simultaneous existence of a porticus and several compartments all around the courtyard or only flanking it. The courtyard was surrounded by a portico as eight stone bases of 1.00 m sides were discovered and delimited by the six of the mentioned rooms. Somewhere in the south-east corner of the courtyard, a 'platform' of 2.50 × 2.50 m was identified, probably a statue or monument base²⁷⁵. The depth of the portico is 2.00 m with an additional *intercolumnium* of 2.00 m.

The rooms flanking the courtyard are sized c. 4.00 × 3.00, their function being suggested by the discovery of approximately 50 arrowheads 'à l'aile droite'²⁷⁶. Hence, at least part of the rooms fulfilled like elsewhere, the role of *armamentaria*.

Between the front courtyard and the next large area, four large post bases sized c. 1.90–2.30 × 1.15–1.35 m were identified. Probably, they supported arches carrying a large roof which must have covered the area of 9.50 × 25.50 m (242.25 m²) of the *basilica*. Being placed at equal distances, it is possible that the bases supported arcades of similar size. Compared with the front courtyard, the *basilica* occupied a normal percentage of 31% of the building surface. Inside, two walking surfaces were noticed²⁷⁷.

The **tribunal** was identified by mid short western side of the *basilica*, an area of c. 4.00 × 4.00 m, made of rudimentary walls which this time 'bond' to the outer wall of the building²⁷⁸.

The total surface occupied by the **back rooms** is of 132.60 m² on both sides of the room named *aedes* being positioned two compartments each. The *aedes* lies on the entrance axis and is sized 7.00 × 5.20 m (36.40 m²), occupying 27% of the surface of the back rooms, having as such relatively larger sizes when compared to other forts. Unfortunately, no traces of any *aerarium* were identified²⁷⁹. The rest of the four rooms on both sides of the *aedes* have relatively equal sizes of c. 5.20 × 5.00 m. The single division heated by a channelled hypocaust system is that in the north-west corner.

²⁷⁴ See Taylor 2000, 47.

²⁷⁵ After Isac 2003, 125.

²⁷⁶ Panaitescu 1929, 12, fig. 9.

²⁷⁷ After Isac 2003, 128.

²⁷⁸ After Isac 2003, 129–30.

²⁷⁹ Two buttresses 'surfacing from below the northern wall of the strongroom' were considered as part of a probable *aerarium*, see Isac 2003, 131.

Praetorium

The commander's quarters from Cășeiu (fig. 10) is located in *latus dextrum* at few meters from a granary placed near the headquarters building, facing the colonnade aligned on the entire *via principalis* length. Three main constructional phases were established for the structure, two of timber and one of stone²⁸⁰. The alignment of few post-holes of the timber uprights belongs to the first phase, the building plan being insufficiently clear. It was though established that the structure is sized 26.50 × 31.00 m (821.50 m²), occupying hence 3% of the fort surface. The percentage is normal, yet considering the fortification sizes, the building is one of the largest from Dacia, increasing in dimensions during last constructional phases²⁸¹. The excavator emphasizes the building short time span of function as in the following make-up layer a tile stamped *coh. II Britannorum* dated by the beginning of the 2nd century AD was discovered²⁸². The plan indicates that the structure has external porticoes of 2.50 m depth towards *via principalis* and *via sagularis*, hence the access into the building was made on several sides²⁸³. In the northern part, the next wall fragment parallel to *via principalis* was identified at c. 6.20 m from it, being perpendicular to another wall located at c. 8.00 m distance from the supposed portico from *via sagularis*. As such, even from the first phase the construction's plan with porticoes on at least two of the sides, in other words, on those which open to roads seems awkward. The compartments, if any, are either of large sizes or they are positioned probably on two rows, alike later stages. If any inner courtyard existed, it was not located in the centre of the building as in the majority of cases, but westwards or southwards.

Subsequently, the building is reconstructed on the same location yet with different planimetry. Its dating was again made based on troops from the fort at Cășeiu movements by the beginning of Hadrian's reign, when the garrison troop would be *coh. I Britannica*²⁸⁴. Or, the building plan seems similar, at least in the eastern part from *via sagularis*, exhibiting an exterior portico with two rows of rooms in the back, hence one may not exclude it was constructed by the same team, or better yet, for the same commander²⁸⁵. This time, since several walls were identified, one may notice the existence on the

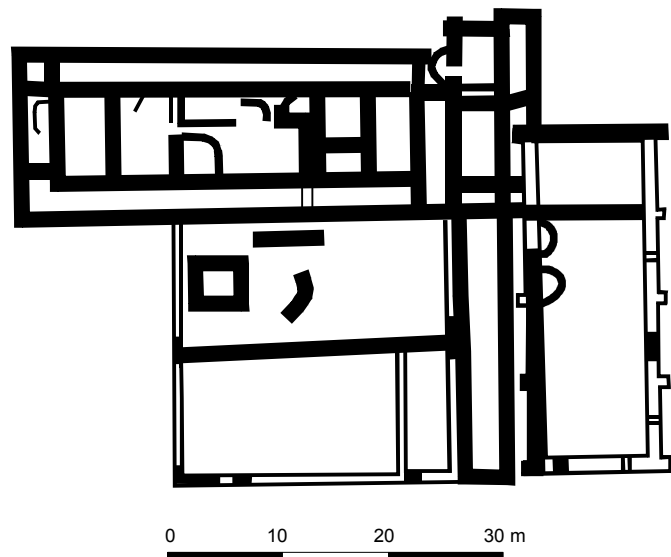


Fig. 10

²⁸⁰ For technical elements and detailed plans of the three phases, see Isac, Hügel, Andreica 1994, 56–60, Abb. 26–7; Isac 2003, 134 sqq.

²⁸¹ *Praetoriae* of such sizes were also researched in forts for cohorts, like Wallsend (1000 m²) or Housesteads (950 m²), see Snape, Bidwel 2002, 269.

²⁸² Isac 2003, 136.

²⁸³ In the case of the commander's quarters from Fendoch for instance, three entrances from different sides existed: for family, servants and one used for receptions, Johnson 1987, 154.

²⁸⁴ After Isac 2003, 138.

²⁸⁵ The plan is not usual for such building type, and this specificity may indicate same contractors. During the second phase, the building is enlarged becoming closer to the eastern enclosure.

same eastern side of a second inwards portico of c. 2.20 m deep. In this phase, the post-holes are thicker, of 0.60–0.70 m, yet the walls are still of 20 cm, likewise the preceding phase.

The sizes of the building were then 28.50 × 31.00 m (883.50 m²), occupying 3.24% of the fort surface. The author of the excavations considers it one and the same with a central courtyard surrounded on all sides by compartments. The plan shows that divisions existed on the lateral western and eastern sides²⁸⁶, in the latter case, as mentioned, on two rows, yet the situation on the northern and southern sides where partition walls were not identified, remains unclear²⁸⁷. Finally, the existence of an inner portico is obvious as well on the western side, without being doubled by an exterior portico. Yet, in the middle of what seems a courtyard indeed, since inner porticoes appear, the plan renders the route of a north-south wall running precisely by mid courtyard.

During the last construction and revetment phases of the building, it is stone-remade, having a different plan compared to previous phases. The last construction phase is subdivided into three stages a, b, c²⁸⁸. During phase IIIa the plan is structured in ‘three distinct areas’, approximately equal in width²⁸⁹. The construction is sized 25.00 × 35.00 (875 m²), occupying 3.20% of the fort surface. Nonetheless, the building planimetry is not usual or normal compared to other commander quarters within forts of the Empire. Towards *via principalis*, almost 70% of the building is occupied by two joined courtyards (A and B) of 23.50 × 11.00 m and 23.50 × 10.50 m. The courtyard from *via principalis* was paved with cobbles. Inside courtyard A, a few contexts were identified. Context 10 is close to the eastern side of the court, consisting of an individual rectangular compartment sized 5.00 × 4.00 m. The construction walls are of good quality, hence the author of the excavations supposed we were dealing with a water tank²⁹⁰. This construction is connected to the neighbouring structure. Tangent to the western wall of the rectangular room, a circular, 3.20 m deep-staired pit was also identified²⁹¹. Its walls were lined with worked stone, several slabs sized 0.70 × 1.00 × 0.40 m being placed at its base. Slag and vitrified glass fragments were also found and a 1.50 m diameter fireplace was uncovered north to the pit.

West of court B, in the north-western corner of the building, a compartment separated from courtyard B by a poor quality wall became apparent²⁹². The functionality of these adjoined courtyards, not surrounded by compartments on three of their sides is very difficult to establish, as I do not know any analogy within the Empire. Only on the southern side, theoretically opposed to the entrance, 8 or 9 compartments placed on two rows were observed. Finally, the two divisions from courtyard A are prolonged and have depths of c. 3.00 m, hence, their initial role could be that of porticoes. Subsequently though, one of these compartments would be equipped, alike the rooms from the back (no. 8 and 9), with a *hypocaust* system. Noticeably, the most important rooms on this side are the last two, being also the largest of

²⁸⁶ In some compartments, floors of *opus signinum* were identified, after Isac 2003, 138.

²⁸⁷ Considering the distance between the lateral walls, probably forming compartments on the northern and southern sides, it is possible that two rows of compartments existed here as well.

²⁸⁸ Isac 2003, 139.

²⁸⁹ Isac 2003, 139.

²⁹⁰ After Isac 2003, 141. In Britannia forts like Nanstallon, Pen Llystyn, Brecon Gaer, Caerhun or Segontium the commander’s quarters also have two courtyards, yet dissimilar to those found at Cășeiu. In the one attached as annex, smaller sized constructions from inside were latrina, see Fox, Ravenhill 1972, 79, n. 47.

²⁹¹ Isac 2003, 141. Nevertheless, the northern and southern limits of the two structures seem to rather overlay each other.

²⁹² Isac 2003, 140. The division is sized c. 5.00 × 10.50 m, its role being difficult to establish.

c. 7.00 × 8.00 m (no. 8) or 6.00 × 8.00 (no. 9). It is possible that, if here lied the commander's quarters, room no. 8 located approximately in the middle of the south side of the building would represent a *triclinium*²⁹³, while that in the SV corner a second *triclinium* like at Gilău, or, since both are equipped with a heating system, it might have been one of the most important bedrooms, probably the commander's. The importance of these rooms is proven by numerous fragments of painted plaster found inside²⁹⁴. In room no. 8, two fragments of marble statues depicting Jupiter with Eagle and the Thracian Knight were also identified²⁹⁵. The authors of the diggings indicate the existence here of a sacred area or *sacrarium*²⁹⁶. The existence of sacred locations within forts is not excluded, although the single sacred location remains *aedes*, yet discoveries from room 8 indicate it was a day room, *triclinium*, where erection of gods or emperors statues was usual²⁹⁷.

The dating of this phase was made based on the discovery of coins issued under Trajan and Hadrian sometime in the 2nd century AD²⁹⁸. Or, considering the completely different plan of the building, it is possible that only this phase would be contemporary with the arrival at Cășeu of another troop, by the beginning of Hadrian's reign.

Subsequently, in phase IIIb, the building is enlarged westwards occupying also part of the granary located between it and *principia*. It would be sized 35.00 × 29.50 m (1032.50 m²), occupying 3.80% of the fort surface. Should we take in consideration yet, the width of the granary in the west then the occupied surface becomes 35.00 × 33.00 m (1155 m²) with a percentage of 4.20% of the fort surface. Between the building and the *horreum*, a row of 6 compartments is added initially on the entire building length. The width of such divisions is c. 4.00 m, yet their length differs from one to the other. West of the two courtyards, three rooms are placed: the first is c. 10.00 m long, the second c. 5.00 m, while the last is c. 7.00 m long. Obviously, access to them was made directly from the courtyards, although the wall separating courtyard A from B was not in extension of the partition wall of rooms 11 and 12, hence it is possible that the first was discontinued in this phase. Probably, at least one of such extended subdivisions fulfilled the role of a stable, similar with other *praetoria*²⁹⁹.

On the western side, behind the three extended compartments, there is another heated one of c. 7.00 m long, which had a small lobby by the short ends. The second lobby facilitated access to another room, no. 17, also provided with a heating system. Probably the first lobby, no. 14, made the connection with the newly formed rooms in the granary at west. One this lobby walls runs transversally on the entire width of the granary, thus resulting a larger room (no. 15: 9.00 × 7.00 m). It was probably a kitchen, considering the fact that south of it, to the exterior, a domestic refuse pit was identified (4.50 × 3.50 × 2.50 m) and in front of the former ventilation inlet, burn traces were found³⁰⁰. Thus, the former *horreum* becomes an annex of

²⁹³ Information on *triclinium* from headquarters building, see Johnson 1987, 154 and Hodgson 1996, *passim*.

²⁹⁴ Five different colours were identified, especially red and green, Isac, Hügel, Andreica 1994, 60.

²⁹⁵ In the vicinity, a parade armour was also discovered, see Isac 2003, 147, Pl. VII, 1, 2.

²⁹⁶ After Isac, Hügel, Andreica 1994, 62; Isac 2003, 147.

²⁹⁷ Nonetheless, sacred area related to buildings belonging to some officials are obvious, like for instance the case of the financial procurator house from Sarmizegetusa where a small sacred place was arranged in one courtyard, see Marcu 2007a, *passim*.

²⁹⁸ Isac 2003, 142.

²⁹⁹ See for instance, the case of the building from Housesteads, Johnson 1987, Abb. 102.

³⁰⁰ After Isac 2003, 143. We specify that burn traces around ventilation shafts could come from periodical fires lit in order to eliminate rodents from under granaries floors, the most well-known examples being the forts from Castleary, Cadder, Slack and Castle Collen, see Gentry 1976, 11.

the commander's quarters. The northern part of the granary would be used as dwelling area also (see *infra*).

During a last revetment phase of the building, a new southward and eastward enlargement of the building takes place, especially by the construction of a new wing over *via sagularis* and the refurbishment of a portion from phase IIIa³⁰¹. Thus, in the SV corner, room 17 is enlarged including over the waste pit, adjacent to the supposed kitchen and an apse is added towards east. Southwards, a new wall is added in parallel to the former enclosure, thus forming a long lobby along the entire side or a 2.50 m deep portico opening to *retentura*. By the end of *via sagularis* six new compartments made of poorer quality walls were added³⁰². The authors of the excavations maintain that the discoveries in the area indicate craftsmanship activities, since in south-east corner room 19 a kiln, bronze slag, iron, vitrified glass and melting pots were discovered³⁰³. Moreover, in the adjoining room (no. 20) a water basin for cooling, delimited by a spillway, was identified³⁰⁴. In room 24 there utensils, iron objects, knives or one barrel rings were found. The opening to the exterior indicates this building part had been separated from *praetorium* or that, less probable, the access to the *praetorium* was made from *via quintana*.

East of the building, in the fort *agger* an 'occupation' space was examined, comprising poor quality *opus signinum* floor and a lean-to roof.

To conclude, one may observe that the structure from *latus dextrum* is one of the largest of the type from Dacia, having yet a most unusual plan. If during the first two phases the plan with compartments around a central courtyard (?) could have been normal, although still incomplete, not the same may be said about the stone building erected on the same location. Latest very good quality archaeological excavations were undoubtedly hindered by the previous excavations of Em. Panaitescu, hence some of the details were hard to notice. What precisely shows that the building had a residential character? Obviously, it results from the fact that certain rooms were heated by a *hypocaust* system, that a fragmentary inscription mentioning the name of a prefect of *coh. I Britannica* was discovered in court A, that several-coloured painted plaster fragments and finally the two marble statue fragments were found in the most important room on the southern side. The difference between the construction or refurbishment phases of the building is not clear though, as there are no sufficient data related to the construction technique. Nonetheless, the building planimetry is extremely odd for a commandant's building. First of all, the significance of two adjoined courtyards, surrounded only on two of the sides by rooms is difficult to understand. Were they erected only to 'ensure a quiet area to the dweller'?³⁰⁵ It is hard to say, without knowing other analogies in the military or even civilian environments.

On the other hand, evidence that this building was a *fabrica* in its entirety are also significant³⁰⁶. First of all, the water tank from courtyard A and the discoveries from certain

³⁰¹ After Isac 2003, 143–4.

³⁰² These compartments from the *via sagularis* area are characterised within other forts as a late phenomenon, dated by mid 3rd century AD, see Johnson 1987, 154–8 and for Dacia Isac, Hügel, Andreica 1994, 44, fig. 7; Isac 1997, 65.

³⁰³ This building area is characterised as a small *fabrica*, Isac, Hügel, Andreica 1994, 64. the spaces added at a certain point in headquarters buildings from Britannia had the same use: stables, small store rooms or workshops, see Johnson 1987, 154–8.

³⁰⁴ After Isac 2003, 145.

³⁰⁵ After Isac 2003, 149.

³⁰⁶ For evidence on the existence of workshops in the commander's quarters area, see Birley 2002a, 69.

rooms are characteristic to such building types³⁰⁷. We have already mentioned the finds from the later divisions located in the south-west corner, characterised by the excavators as compartments fulfilling a craftsmanship role, yet in courtyard A, in the water tank area, slag and vitrified glass fragments were identified, while north from the courtyard pit, a 1.50 m diameter fireplace was discovered. Yet the planimetry of the building is not indicative of its use as *fabrica*, although, elements characteristic to this building type (see *supra*) also appear. On the other hand, the existence of small workshops in a *praetorium* is not excluded either.

Possibly, on the occasion of the second volume of the Cășeiu fort monograph publishing, analysing in detail all discoveries inside the building, its functionality would become more clear.

Horreum 1

Between *principia* and *praetorium* an already mentioned building was researched, having all characteristics of a *horreum*³⁰⁸. Three construction phases were noticed, the first two in timber and the last in stone. Regarding the first two phases, the building width is not clear enough, as only the south and east sides were identified. During all phases though, the structure seems to have had approximately the same plan.

The granary sizes in the first phase are of 30.00 × 12.75 m (382.50 m²), occupying therefore 1.40% of the fort surface. Such sizes are normal, the ratio between the building length and width being 2.35, with the width slightly greater than the maximum limits of 10.00 m found with other forts³⁰⁹. The heightened floor was supported by poles and their prints of c. 0.40 × 0.25 m were identified by excavation in the building northern extremity³¹⁰. It is interesting that the wall print presents in the north-east corner and the eastern side ‘three projections that may be interpreted as buttresses’³¹¹. According to our knowledge, it would be a first for the Empire, yet unfortunately, technical data at east of these ‘projections’ are incomplete. On the structure northern side, compartments delimited by wide walls of 0.25–0.30 m were observed³¹². Such compartments were discovered only in some of the forts from Germania, some of them within stone granaries, being even heated, probably for accommodating those *librarii horreorum*³¹³.

During the second timber phase granary, sizes become 33.00 × 13.25 m (437.25 m²), 1.60% of the fort surface, thus extending by 3.00 m towards *via principalis*. The difference in the construction system is, according to the author of the excavations, the use of the wattle and daub in the building construction, the post-holes being this time deeper³¹⁴. In the south-east corner area, 12 rectangular pits were identified (c. 0.50 × 0.65–0.70) grouped in four parallel rows. As such, the floor is heightened and carried by small-sized poles, placed at 1.80–

³⁰⁷ The use of the water tank only for water supply is rather improbable, since at Cășeiu supply was made by fountains, the water table being easily reachable. On the other hand, water tanks were also identified and supposed at Valkenburg, Vindolanda, Obernburg, Oberscheidental and Neckarburken, after Groenman-van Waateringe 1991, 179, 181. Initially, the water tank from Valkenburg was used by H. Schönberger as argument for the building functionality, deeming it *fabrica*, after Schönberger 1979, *passim*.

³⁰⁸ See details in Isac 2003, 149 sqq.

³⁰⁹ See Manning 1975, Tab. 3; Gentry 1976, 7 or Taylor 2000, 38–9, Tab. 5.

³¹⁰ After Isac 2003, 152.

³¹¹ Isac 2003, 152.

³¹² Isac 2003, 152.

³¹³ See Rickman 1971, 245.

³¹⁴ Isac 2003, 153–4.

1.90 m distance one from the other³¹⁵. The structure is dated based on the archaeological material by mid 2nd century AD³¹⁶, without being able to make a chronological connection regarding the floor-supporting posts arrangement fashion.

During the third phase, dated by mid 2nd century, the building was sized 34.50 × 11.00 m (379.50 m²) occupying 1.39% of the fort surface. The building is located at 4.00 m from the commander's quarters, being separated by a gravel small street. In front of the construction, the bases of the portico posts delimiting *via principalis* there were identified. The walls are massive 0.75–1.10 m, having each three buttresses on the long sides, one in the corner and two on the short sides. Between buttresses three ventilation outlets were observed on each part. The floor is supposed to have been carried by stone posts, yet not identified by excavation³¹⁷.

During a last construction phase, the building transforms into an annex of the neighbouring commander's quarters, being partitioned during several stages³¹⁸. Thus, the southern part was changed into kitchen (see *supra*). At that moment, on or over the eastern side an apsidal compartment is added. Outside the apse, a floor made of reused bricks was observed. A wall of 0.60 m divided longitudinally the northern half of the building in two compartments, the one in the west having an *opus signinum* floor³¹⁹. Subsequently, to the north of the preceding apse, another of larger sizes is added, several occupation horizons being discovered inside.

Horreum 2 and building X

Left to the commander's quarters other two, almost adjoined buildings were discovered, the second one being definitely a *horreum* (fig. 11)³²⁰.

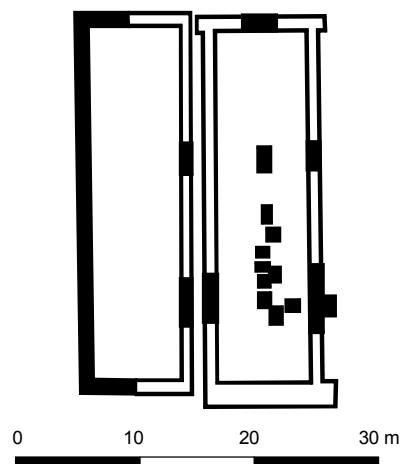


Fig. 11

The first construction is at 5.50 m west of *principia*, sized 35.00 × 10.00 m (350.00 m²) and occupying by itself 1.28% of the fort surface. The building walls are massive, sized 1.10–1.15 m, similar to other *horrea*³²¹ and thicker than *horreum 1* walls, being placed within the maximum limits found with these buildings types. Towards the headquarters building, the cobble groundwork of the structure is higher and lacks on the opposite part facing *horreum 2*. The building was covered with tiles, a compact layer of tiles being found. The archaeological material, except for a few brooches dated by mid 2nd century, is missing. As such, the position, sizes, lack of archaeological material, very solid walls indicate we are dealing with a granary. Nonetheless, due to the lack of

buttresses, the building was considered a store room at most³²². The closest analogy with the building from Cășeiu is found in the fort at Templeborough where two adjoined, yet not

³¹⁵ The distance between the poles was almost constantly of 1.50 m, after Manning 1975, 106.

³¹⁶ After Isac 2003, 155–6.

³¹⁷ Only a stone block was found in the south-west corner area, Isac 2003, 156–7.

³¹⁸ The dating of such changes is ascribed to the military anarchy of the 3rd century AD, the explanation residing in a generally valid 'hunger for space', after Isac 2003, 159.

³¹⁹ Isac 2003, 160.

³²⁰ See Isac 2003, 163 sqq.

³²¹ See a few comparative measurements in Taylor 2000, 30–1, 59.

³²² It is associated to other buildings of the type, alike at Porolissum (building C3) (see *infra*) or several on Antonine Wall like at Balmuildy or Bearsden (Isac 2003, 166), although the construction Cășeiu is different.

adjacent rooms appear, alike at Cășei. Here, one of them had buttresses on the long outer side, whilst the second structure had no buttresses, maybe except for one on the short side³²³. The building is catalogued as characteristic to double *horrea*³²⁴. Buttresses are required for carrying the larger sized tile roof³²⁵. At Cășeu the existence of a tile roof was proven, hence very massive outer walls could have supported such a weight. I do not consider there are reasons for doubt that the building from *latus sinistrum* at Cășeu is in fact a double *horreum*³²⁶. Obviously, the different constructional technique and the fact that one of the buttresses of the building from the east (*horreum 2*) is ‘cut around 15.00 cm into the western wall’ of the building near the headquarters building shows that the two buildings were not erected in stone at the same time.

Horreum 2 was identified left of the mentioned building at a distance less than 1.00 m from it. The building was established to have had two construction phases, one of timber and one of stone³²⁷. During the first phase, the construction is timber-made, having 0.40 m wide walls and sized 37.50 × 10.00 m (375 m²), thus occupying 1.37% of the fort surface. Inside, prints of three post-pits necessary for supporting the floor were identified. It is possible that the roof was tile-made during this phase also³²⁸, as broken tiles beside much charred wood were discovered, coming probably from the floor or the structure in general firing.

Subsequently, the granary is stone-made and has 1.10 m thick walls, yet this time buttresses were placed against them, three on each side³²⁹. Sizes are close to those in the preceding phase, being of 36.50 × 10.00 m (365.00 m²) and occupying 1.34% of the fort surface. Probably, the floor was supported by stone block trestles, certain, sized 0.80 × 0.80, being discovered at distances of 1.00 m ones from the other³³⁰. Two stone statues portraying acephalous Ceres with patera and wheatear and an altar displaying the CERERI formula were uncovered inside the granary³³¹.

Close to the northern wall of the building another, more rudimentary wall was identified, erected without foundation and which had very probably supported the loading-unloading platform.

Considering the area occupied by the three buildings deemed *horrea*, together being of c. 4.00% of the fort surface, it is very probable that not all existed at the same time. The fact may be true since, usually, the space occupied by *horrea* is of 1.50–2.00% of the fortification surface³³², variations of over 3.00 percentages being related to special situations, like the case at

³²³ See plan in Johnson 1987, Abb. 106.

³²⁴ See Gentry 1976, 7.

³²⁵ For the discussion referring to the buttresses role, see Gentry 1976, 15–6. Proven based on calculation made on a *horreum* from the fort at Corbridge. See also, Taylor 2000, 63.

³²⁶ In Britannia the single stone *horrea* without buttresses were researched in the forts at Corbridge, Caernarvon, Slack, Whitle Castle and Bar Hill, see Rickman 1971, 231; Gentry 1976, 8. Hence, it was supposed that the roof was wooden made, after Gentry 1976, 8.

³²⁷ After Isac 2003, 167.

³²⁸ Isac 2003, 169.

³²⁹ Alike *horreum 1* the number of buttresses is reduced, considering they were generally placed at distances of 1.50–3.00 m, Gentry 1976, Tab. 4. For comparative buttresses sizes from certain forts on Hadrian’s Wall, see also Taylor 2000, Tab. 6.

³³⁰ Isac 2003, 171–2.

³³¹ See Isac 2003, 172–3.

³³² Thus the one-year demand of the troop was covered, except the horses feed which would have required ten times larger granaries, after Manning 1975, n. 32.

Strageath where during the first phase, granaries occupy 3.70% of the fort surface following its use as supply base for Agricola's campaigns³³³. Hence, one of the two granaries from *latus sinistrum* must have been built when the granary right from the headquarters building was discontinued, it being most probably the closest as location to this building in whose area no previous timber phase was identified. Thus, the surface occupied by *horrea* was initially of 2.73, then the double *horreum* occupied 2.62% of the fortification surface, percentages much closer to those found with other forts of the Empire.

Between *horreum 2* and *via sagularis* from the western side, in the single main trench crossing the central part in this area were noticed traces of timber buildings, without being able to comment on their planimetry or functionality³³⁴.

Barracks

Initially, the barracks from (fig. 12) *praetentura dextra* were investigated by a main trench completed with several surfaces. With the aid of an oblique trench, it was established that the situation from *praetentura sinistra* is almost similar³³⁵. Thus, the barracks had two construction phases, both in timber and wattle and daub, preserving the same plan, an unusual situation especially since here, two troops, apparently different as organization, succeed each other, one of them having some additional cavalry effectives (see *infra*)³³⁶. Tiles were signalled related to the second phase of the barracks only³³⁷, hence during the first phase the roof could have been made of lighter materials like shingle or reed.

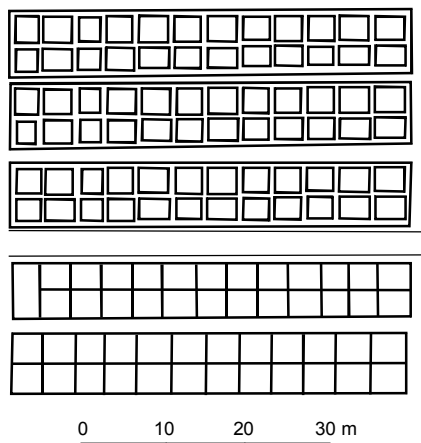


Fig. 12

Barracks two, from the northern side, was exhaustively investigated and its size established at 49.00 × 7.00 m. The barracks is located *per scamna*, starting at 1.00 m from *via praetoria*. It has a simple plan, without veranda, with two rows of compartments along the entire building. According to D. Isac, 13 *contubernia* emerged, each divided into *papiliones* and *arma* sized 3.50 × 3.00 m, respectively 3.50 × 2.00 m³³⁸. The sizes indicate that *papiliones* and *arma* are unequal. If 3.00 m, respectively 2.00 m represent the compartments depth, then their width should have been of 3.50 m. This fact could be plausible since the plan shows that the widths of such *contubernia* are equal. Or, in this case, the barracks width would be of

only 5.00 m, a *contubernium* occupying 17.50 m².

Moreover, the plan shows that the last compartment was not transversally divided in two parts. Here, more precisely in the last three compartments area, the excavator argues that the building seems to be wider by 2.00 m without mentioning in which direction. As such, he

³³³ See Frere, Wilkes 1989, 123.

³³⁴ Probably there existed two buildings with several revetment or reconstruction phases, since two separating alleys of 3.00, respectively 2.00 wide were observed, after Isac 2003, 174 sqq.

³³⁵ After Isac 2003, 177–8.

³³⁶ The excavator maintains that *coh. I Britannica* overtook the barracks from the preceding troop, Isac 2003, 179.

³³⁷ After Isac 2003, 179.

³³⁸ Isac 2003, 183. The general fort plan does not indicate which compartments are specific to *papiliones* and which to *arma*.

concluded that this would be the location of the officer's room, framing the A type barracks established by D. Davison³³⁹. Except that, the latter author establishes for this barracks type a building with veranda and the officer's rooms visibly projected outwards, on the veranda direction³⁴⁰. Additionally, the officer's room is not compartmented, or, in case it would have been so, then it comprised totally different compartments compared to those of a usual *contubernium* (see *infra*). If at Cășeiu, the officer's rooms from barracks 2, whose plan was in fact a model for the restoration of the other barracks from *praetentura*, it would have corresponded to the sizes of three *contubernia*, and would have had a surface of 5.00 × 10.50 m (52.50 m²), occupying c. 15% of the total barracks surface, sizes rather small comparative to other forts from the Empire, as they generally occupied c. 30% of the building surface (see *infra*)³⁴¹. The barracks, should we agree to the excavator's planimetry, frames probably within type J established by D. Davison, with equal sized *contubernia* from one to the other building end and also a veranda in this case³⁴².

The barracks adjacent to *via sagularis* has approximately equal sizes with that described above, having thicker prints of post-holes³⁴³. Beside the neighbouring barracks, they are separated from other three barracks located towards *via principalis* by a 4.00 m wide metalled small street. By comparison, the three barracks are considered of the same type with the first³⁴⁴.

Since enough space remains in the east of *praetentura dextra*, here it is supposed the existence of a barrack oriented reversely than the other, *per strigas* (see *infra*)³⁴⁵.

In *praetentura sinistra* the prints of five barracks placed *per scamna* were also identified. As such, they are defined by rows of two equal, c. 3.00 × 3.00 m rooms each³⁴⁶. Nonetheless, the barracks width is considered in one case of 7.00 m and of 8.00 m in the case of the double barracks no. 2³⁴⁷. Towards *via principalis*, probably after an intermediary space of c. 5.00 m, other two barracks follow, with rows of *papiliones* and *arma* each of approximately 3.50 × 3.00 m. Then, another interval of 4.50 m and, parallel to *via principalis*, a construction considered a barrack with a single row of 5.00 m wide rooms³⁴⁸. Although rare, barracks with a single row of rooms appear to have existed, yet considering the building sizes from Cășeiu, it might have had a different purpose, that of stable or store room for instance, being similar with the parallel and adjacent constructions to *via principalis* from Wallsend.

If the first troop from Cășei would have been *milliaria*, according to D. Isac's surmises, then the buildings from *praetentura*, if all barracks, would have covered the necessary of a troop of 1000 men. Except that, including *coh. II Britannorum* seems to have been *equitata*

³³⁹ Isac 2003, 182.

³⁴⁰ See Davison 1989, Fig. A.

³⁴¹ Nonetheless, differences from one fort to another are rather great, see Davison 1989, 11, 12, 91–2. The situation at Cășeiu remains unclear especially since 'unfortunately, explaining respective barracks extremity was not intended', after Isac 2003, 184.

³⁴² See Davison 1989, Fig. A.

³⁴³ We do not know whether the posts including have larger diameters comparative to barracks no. 2, thus suppositions related to sizes, especially to the building height are precluded.

³⁴⁴ After Isac 2003, 183.

³⁴⁵ See Isac 2003, 177.

³⁴⁶ After Isac 2003, 186.

³⁴⁷ See Isac 2003, 186. The 'double' barracks is framed in type F with D. Davison (Davison 1989, Fig. A), the author of the diggings at Cășeiu confusing this type of simple barracks with a double barracks.

³⁴⁸ After Isac 2003, 187.

(see *infra*) and as such, the buildings planning intended to house both soldiers and horses had to be more complex.

Retentura dextra is undergoing research as ample archaeological excavations started only in 2001. Three barracks deemed, eventually, stables, all indicating three occupation phases and probably similar planimetry were identified here³⁴⁹. The first phase, dating with certainty from under Trajan-Hadrian, is characterised by timber barracks belonging to *coh. II Britannorum*³⁵⁰. The building is located south the commander's house, composed of 35–40 cm thick walls. The corresponding walking surfaces were very thin, hence hard to distinguish, alike the structure planimetry. The building width is 9.00 m. After a 1.50 m interval, the second building of 7.50 m wide ensues. A third barracks 'adjacent to the previous' is marked by an east-west wall, being c. 6.50 m wide³⁵¹. Should it be adjacent, the two barracks would have formed a double barracks, which as shown by the plan, is not the case. The plan of the building neighbouring *via sagularis* is much more complex compared to those located in the north, while their partitions are not sufficiently clear to be deemed *contubernia*. Finally, where they could be delimited, *papiliones* and *arma* are 3.50 × 2.50 m each. Occupation traces were best observed in barracks 2 *contubernium* corner where, 6 pestles were discovered on a pit rims, probably belonging to phase I³⁵².

The second phase of the barracks from *retentura* was attributed to *coh. I Britannica*³⁵³, most likely following the buildings recognition as stables. The prints of the timber walls are characterised as 'removal holes', being 30–50 cm wide. The building located at 1.00 m from the commander's quarters late enclosure comprises a row of *contubernia* divided into *papiliones* and *arma* of 3.50 × 2.00 m and southwards, a 2.00 m deep veranda, having a total width of 9.00 m³⁵⁴. Certain rooms were paved, at some point, with *opus signinum*. Between this building and the next, a 1.50 m wide small street was observed. Barracks no. 2 is also 9.00 m wide, *papiliones* and *arma* are of 3.50 × 2.50 and the veranda is 1.50 m wide. In the middle of the compartments from the northern half, two extended pits of c. 1.50 × 0.40 m, respectively 1.70 × 0.50, the first being only 20 cm deep were delimited. They were deemed pits for horse waste evacuation, also appearing in the two compartments of barracks no. 3 near *via sagularis*³⁵⁵. The shape of such pits is found in other forts, too, although their length is in other parts larger, being almost equal to the entire depth of certain *arma*, yet their depth of only 20 cm is very small (see *infra*). Another issue is related to their location within the barracks, being found, according to the barracks no. 2 plan, in *papiliones* and not in the front room of the veranda as the case everywhere when such mixed barracks emerge. Hence, although they indicate the housing here of horses including, details on the barracks planimetry are not convincing enough. It is certain that the entrance into barracks no. 2 was made from north, therefore the existence of a veranda in the southern part is unlikely. If the

³⁴⁹ See Isac 2003, 188 sqq.

³⁵⁰ Isac 2003, 189.

³⁵¹ After Isac 2003, 190–1.

³⁵² They are characterised as identical with those identified in a mixed barracks from the *retentura* of the fort at Gilău (after Isac 2003, 196); at Cășeiu they belong to the first phase of the barracks, when the building did not function as stable.

³⁵³ Isac 2003, 192.

³⁵⁴ Isac 2003, 193.

³⁵⁵ D. Isac brings for the situation found with the barracks from *retentura* of Gilău fort and other parts of the Empire convincing arguments, Isac 2003, 194–5.

pits from barracks no. 3 also present same characteristics, the building is back-to-back with barracks no. 2, the entrance being made from *via sagularis*. If such pits are indeed for horse waste, the maximum of horses placed perpendicularly on them were indeed two, as maintained by the excavator³⁵⁶, even though rather crowded. This number suggests yet, the accommodation of two soldiers in *papiliones*, and finally of an ‘under-strength’ *turma*.

Although deemed stables, such buildings represent in fact standard mixed barracks, where under the same roof were accommodated both riders and horses of a *turma* of c. 30 men, as plainly proven by C. S. Sommer³⁵⁷. Thus, in *retentura dextra* and *sinistra*, 8 such buildings that would cover the necessary of 8 *turmae* of one *coh. milliaria* were required in total³⁵⁸. Nonetheless, here are fitted only 6 such buildings. The space from the ends of *retentura*, which remains probably unoccupied by mixed barracks, is too small to accommodate other two barracks *per strigas*. Or, the single place where the other two mixed barracks would have had space is located within the limits of *praetentura sinistra* and *dextra* placed *per strigas*, thus confirming the organization of at least the *equitatae* cohorts from Cășeiu, the number of the mixed barracks corresponding to the 8 *turmae*.

The author of the excavations, although expected that a third phase had existed, possibly of stone barracks, could identify almost no walls trace in the barracks area, except maybe two removal print of uprights or ‘walls’³⁵⁹. Since from the entire researched area, including *retentura*, numerous not bound with mortar cobbles surfaced, I suppose that at a certain moment the barracks were remade still in timber yet on cobble foundations as the case in many other parts. In Dacia a similar example comes from Teregova³⁶⁰.

In the area of the southern *agger*, wall traces of a rectangular building constructed close to the southern enclosure wall were identified.

Troops

The succession of the troops at Cășeiu was established as early as 1987 as *coh. II Britannorum milliaria* (for the troop history see *infra* the fort at Romita) in a first phase and then *coh. I Britannica milliaria*³⁶¹.

The first attestation of the troop is represented by the troop name abbreviation on tile stamps from Germania Inferior at Xanten³⁶² and Vechten³⁶³, and more recently, by the troop

³⁵⁶ Isac 2003, 195.

³⁵⁷ Sommer 1995, *passim*.

³⁵⁸ For the organization of the cavalry from *coh. milliaria equitata* in 8 *turmae*, yet each of 32 riders, see Breeze 1993, 291. Similar opinion in Goldsworthy 1996, 22. For other variants referring to the organization of *coh. equitatae* see briefly in Cupcea, Marcu 2007, *passim*.

³⁵⁹ They were noticed in the eastern part of *praetentura* and *retentura dextra*, being defined as ‘simple walls without mortar or groundwork’, Isac 2003, 180, 197–8. The author believes that the print of such a wall, probably in the northern area of barracks no. 2 from *retentura dextra*, is a ‘sidewalk’ made of quarry stone and cobbles bearing traces of *opus signinum* including between stones; a coin issued under Philip Arabs was also discovered here, see Isac 2003, 198–9.

³⁶⁰ Timber constructions on stone threshold are characteristic starting with Trajan or Hadrian reigns in Britannia or the Severan period outside Britannia, although later, the most encountered method is that of timber construction of ‘post-trench’ type, see Davison 1989, 77–8.

³⁶¹ Isac 1987. See also Isac, Marcu 1999. Nonetheless, one may not exclude that *cohors II Britannorum* might have been quartered, in fact, in the first timber fort from Ilișua.

³⁶² CIL XIII, 12424.

³⁶³ CIL XIII, 12425; Alföldy 1968, 8.

record in the diplomas from AD 81 and 83/84 (ZPE 143, no. 1)³⁶⁴. The stamps attesting the second troop of Britons at Vechten in Germania Inferior bear letter *E* by the end, probably an acronym for *equitata* (CIL XIII, 12425)³⁶⁵. Once with the Dacian wars, the unit is dislocated to Moesia Superior, being recorded in the diploma from AD 100 (CIL XVI 46). Between AD 109 and 164, the unit appears to be part of the Dacia's army and subsequently of Dacia Porolissensis³⁶⁶. The troop might have been quartered in the fort at Cășeu under Trajan, as stamps of the unit were found within the layers corresponding to this phase (see *infra* the case of Romita).

It is certain that the recruitment of *coh. I Britannica* was made after AD 43, under Vespasian, who continues the conquest of Britannia started by Claudius, recruitments intensifying in this province perhaps due to the Batavian rebellion³⁶⁷. D. Kennedy, quoting S. S. Frere argues that the troop formed in Britannia in AD 69, only to be sent to the expeditionary forces of Vitellius, receiving shape and name on the continent³⁶⁸.

The troop is attested for the first time in AD 80(3) in Pannonia, where it ranks eight. The name of the cohort appears simple, without any appellative: *coh. I Britannica*. In the same form appears on September the 3rd, 84 (CIL XVI 30) still in Pannonia, yet this time ranks two among cohorts which demobilised. Within the diploma from September the 5th, 85 the single novelty consisted in the issue of the *milliaria* sign (CIL XVI 31). W. Wagner is mistaken when considering the troop title complete as early as its station in Pannonia: *coh. I Britannica c.R. equitata*³⁶⁹.

From Pannonia, the cohort is transferred in order to participate in Trajan's first Dacian war, since the diploma of January the 12th, 105 (CIL XVI 49) is granted to a former *pedes*³⁷⁰.

The first (known) change in the troop name appears in this diploma bearing the title *c(ivium) R(omanorum)*, obviously a reward *ante emerita stipendia* due to the brave behaviour in the first Dacian war. Within the diploma discovered at Pècs and dated by the editors of CIL XVI in AD 103/107, the unit appears in the same form alike the diploma CIL XVI 49 also issued for the troops of Moesia Superior.

The first attestation in Dacia comes from the diploma of October the 14th, 109 (RMD 148), where it appears with unchanged name still ranking two among cohorts. The diplomas from February the 17th, 110 (CIL XVI 57 = IDR I 2) and July the 2nd, 110 (CIL XVI 163 =

³⁶⁴ *Tabella I* reads [---]RITTON[---], identified with *coh. II Brittonum milliaria*, see Eck, Pangerl 2003, 205–211.

³⁶⁵ See Alföldy 1968, 8.

³⁶⁶ The military diplomas are dated AD 109 (AE 1990, 860); 110 (CIL XVI 163 = IDR I 3); 133 (IDR I 11 = RMD 35); 154 (IDR I 17 = RMD 47) and 164 (IDR I 18 = RMD 64; CIL XVI 185 = IDR I 19 and IDR I 20 = RMD 63).

³⁶⁷ See Stein 1932, 177; Cichorius, *RE* IV, 1900, col.261.

³⁶⁸ Kennedy 1977, 255.

³⁶⁹ Wagner 1938, 104

³⁷⁰ D. Kennedy does not doubt the Celtic origin of Luccus, suggesting that he was a native of the Virunum region 'probable recruitment area for this unit, Kennedy 1977, 254. *Lucco Treni filio* belonged to the *Dobunni* population from Britannia. Supposing he was enlisted for 25 years and considering that the auxiliary troops effectives are completed largely from regions neighbouring the quartering location, it may be hypothetically established that Luccus was part of the last contingent recruited from Britannia, little before or even in AD 80, date of the troop displacement from Britannia to Pannonia. Nonetheless, a counterargument is the diploma from AD 154 (RMD 47 = IDR I 7) which mentions a certain Ivonercus, of Celtic origin (see *infra coh. I Ulpia Brittonum milliaria*), recruited hence around AD 129, when the unit of which he was part was surely in Dacia Porolissensis.

IDR I 3) or 114 (RMD 226) record the unit in the same form. The diploma from 119³⁷¹, 123 (IDR I 7 = RMD 21) or 124/128 (IDR I 12 = RMD 31) found at Gherla, registers the troop simply: *cohors I Britannica milliaria*. The title *c(ivium) R(omanorum)* probably had no further significance. The diploma from July the 2nd, 133 (IDR I 11 = RMD 35) is granted to a former foot soldier.

Further on, the unit is mentioned within the diplomas from 151³⁷², 154 (IDR I 17 = RMD 47) and 161? (162)³⁷³ in the form appearing in the previous diploma. The diplomas from 164, record the unit for the first time as *equitata*, though the *milliaria* sign lacks here³⁷⁴. In RMD 64 a series of engraving errors emerge on the inside diploma face (24), among which the erroneous name rendering of the cohort *I Britannica equitata*, in the form *(cohors) I Britannor(um) equit(ata)*.

The quartering location of this cohort was probably the fort at Slăveni. A stamp discovered at Slăveni signals a unit with the abbreviation *c(ohors) I B....?*, probably *c(ohors) I B(ritannica)*³⁷⁵. The tile stamp (with reversed letters) was much debated due to its completing³⁷⁶. Its current completing state is still uncertain as only several possibilities are listed. The stamp was attributed, without any grounds, to cohort *I Bracaraugustanorum*. This unit is attested only at Boroşneu Mare on stamp types different from those at Slăveni. The cohort from Slăveni is probably identical with the troop discussed here and it would later be quartered in the fort at Căşeu, as tile stamps bearing the same abbreviation of the cohort name were discovered³⁷⁷. The bricks with Slăveni stamp were found at the base of the fort walls and baths, thus being dated in its timber period.

Speculations were also made around some stamps found at Dierna recording a cohort originating from Britannia: *coh(ors) I Br(itannica or -ittonum) (milliaria)*. This stamp type was attributed to either cohort *I Britannica* (by CIL III editors) or cohort *I Brittonum* (by IDR III 1 editors, who do not exclude the first possibility either). One may not exclude that this stamp belonged to the troop I discussed, yet I believe that stronger arguments favour the cohort that would be later quartered at Porolissum (see *infra coh. I Ulpia Brittonum milliaria*).

Cohors I Britannica milliaria was subsequently permanently garrisoned in the fort at Căşeu, as proven by several inscriptions and numerous tile stamps in the form: *c(ohors) I B(ritannica)*³⁷⁸. I do not know when it replaced cohort *II Britannorum milliaria* attested at Căşei during the first phase (Trajan-Hadrian). In order to find the date when *coh. I Britannica milliaria* arrived, we must consider the transfer of cohort *II Britannica milliaria* to Romita (see *infra*). By analogy with the situation from other forts, one may suppose that the unit came at Căşeu immediately after the creation of Dacia Porolissensis³⁷⁹.

One of the inscriptions attesting the troop is that from Apulum-Partoş³⁸⁰. The inscription is dedicated by the spouse and descendants of a former centurion of *cohors I*

³⁷¹ Eck, MacDonald, Pangerl 2001, 27–36, n° 1.

³⁷² Isac 2001, 49–58.

³⁷³ RMD 177; Eck, Isac, Piso 1994, 577–91.

³⁷⁴ RMD 63, 64; RMD 65/115, 116, 117. Including the diploma AE 1999 1103.

³⁷⁵ Tudor 1975, 18, no. 6, fig. 3,5.

³⁷⁶ See also IDR II, no. 527.

³⁷⁷ See Isac, Marcu 1999, *passim*.

³⁷⁸ Isac, Marcu 1999, *passim*

³⁷⁹ See Isac 1987, 179.

³⁸⁰ Daicovicu 1940, 307–8; AE 1944, 34; AE 1980, 751; IDR III/5, no. 484.

Britannica milliaria c.R. eq., P(ublius) Aelius Tertius from the municipium *Claudium Virunum* (Noricum). The title *civium Romanorum* did not emerge in 123, while the troop is recorded as *equitata* only from AD 164. The inscription may be dated by the beginning of Hadrian's reign, in view of the name Publius Aelius³⁸¹, or after the Marcomannic wars.

The inscription, found by C. Torma at Cășei is dedicated to Jupiter Fulgurator by *cohors I Britannica* (the troop is mistakenly mentioned with two *t*'s, instead of *Britannica*) in the honour of two emperors whose names were erased (CIL III 821). The fragmentary epitaph discovered at Cășeu references to a certain Bithus (CIL III 829) who, argued Em. Panaitescu, was the one and the same with *ex equite Mucatrali Bit[hi f (ilio) Besso ?]* (of Thracian origin) in the diploma RMD 63 (= IDR I 20) discovered again at Cășeu, thus supposing his establishment in the *vicus* near the fort (*infra* on *coh. I Ulpia Brittonum milliaria*)³⁸².

Another inscription found at Apulum is dedicated to C(aius) Iulius Corinthianus from Theveste (Numidia) (CIL III 1193; IDR III/5, 542). It was supposed he was the tribune of cohort *I Britt(anica)* which together with a *vexillatio Dacorum* participated in AD 198–199 in the Parthian war of Septimius Severus (or Lucius Verus's from AD 161–165)³⁸³. Or, the troop seems rather identical with *coh. I Ulpia Britt(onum)*, which losses or abandons the imperial surname between AD 161 and 164 (see *infra*). Nonetheless, the troop could be the one stationed at Cășeu, considering that the honorific inscription presented by Em. Panaitescu and found in *principia*, indicates the troop as *coh(ors) I Britt[a]nica miliaria Antoniniana*³⁸⁴.

It is possible though, as stated above, that part of the first troop of Britons was present at Buciumi conceivably under Trajan as well, one of its centurion being mentioned on a bronze appliqué. Subsequently, the troop transferred to Cășeu bears the epithet *Antoniniana*, being certain it was there as early as the beginning of the 3rd century AD.

The possibility of quartering a second troop or of some vexillations in the fort at Cășeu may be taken into account due the large sizes of the fort, unusual for a single cohort, even though *milliaria equitata*³⁸⁵. However, it is very probable that the structures from *retentura* would represent mixed barracks accommodating each, one *turma*. Additionally, the two barracks from the *praetentura* extremities may be double barracks. There is still enough space for the 10 infantry *centuriae*. As such, the fort sizes even though large, are adequate for the two succeeding *milliariae equitatae* troops.

Possibly, parts of other troops stationed periodically at Cășeu, as the case of an *ala Flavia* probably *ala I Flavia Augusta Britannica civium Romanorum*³⁸⁶.

The existence of a second fort during Trajan, which would have quartered *cohors I Britannica*³⁸⁷, is improbable³⁸⁸. Quartering two auxiliary units in forts so close, even adjacent, would be novel.

³⁸¹ After IDR III/5, no. 484.

³⁸² Panaitescu 1958, *passim*.

³⁸³ See comment in IDR III/5, 542.

³⁸⁴ Panaitescu 1929a, 324.

³⁸⁵ An example of fort where a *milliaria equitata* unit was quartered is that of Birrens, of 1.77 ha, see Breeze, Dobson 1969, 19. It is true though, that the authors do not include it among type-forts. See, for instance, the case of the fort from Benwell also of 1.8 ha where a troop of the type is attested (RIB 2093; RIB 2100; RIB 1328).

³⁸⁶ Piso 1999, 86–9.

³⁸⁷ Isac, Isac 2000, 28.

³⁸⁸ See Marcu 2005, *passim* and Marcu 2009.

4. GHERLA

Unfortunately, due to the construction of the Wood Processing Facility of Gherla, except for a few superficial uprights prints or barracks and stable walls (pl. 6)³⁸⁹ located in *retentura*, I do not know anything related to the planning of the buildings inside the fort. The single accurate epigraphic information on such buildings is from AD 143, recording the stone reconstruction of the headquarters building (AE 1906, 112 = AE 1906, 37–8)³⁹⁰. The older fort plan seems to indicate that the single building researched inside was the *principia*. This is the fort plan which reveals that a building examined by J. Ornstein is located, depending on shape, in the fort centre³⁹¹. Considering its numerous compartments, this could be the commander's quarters and not the *principia*.

Troop

Due to the numerous stamps and inscriptions mentioning *ala II Pannoniorum*, it is reasonably obvious that it was the garrison troop of the fort at Gherla. In fact, the sizes and geographical location of the fortification justifies its quartering here.

5. GILĂU

The fort at Gilău is part of the few fortifications of Dacia Porolissensis wherein archaeological excavations³⁹², although on reduced scale when compared to the rather large sizes of the fort, significantly contributed to the knowledge on the inside of the forts from Dacia (pl. 7, 8). In other words, the chronology of the most important buildings inside and the succession of the troops quartered there were established.

It is worth mentioning that this was possible due to the quality of archaeological digs, rather advanced in Romania for the period when carried out³⁹³.

Initially, under Trajan, a fort with earth-and-timber enclosure, sized 130.00 × 116.00 (1.508 ha) (pl. 1)³⁹⁴ existed at Gilău and probably garrisoned *coh. I Pannoniorum*. During this phase, *praetentura* together with the 7.00 m wide *via praetoria* occupied 1/3 of the fort surface, the central fort part from *via principalis* to the back limit of the headquarters building lied on c. 28% of the fort, while *retentura*, with a less than over 30 m depth was positioned on c. 22% of the fortification surface. Percentages are normal, spaces being theoretically covered by official buildings and barracks of a *coh. quingenaria equitata* (see *infra*).

By the beginning of Hadrian's reign, the fort enclosure, firstly of earth-and-timber and then of stone, was much enlarged following the replacement of the garrison troop by an *ala quingenaria*. Thus, the fortification becomes of 221.00 × 137.50 m (3.038 ha) (pl. 8). The planning of the fort quartered under Trajan by a *quingenaria* cohors, shall decisively influence the planning of the cavalry troop fort and some of the buildings from *latera* as well. It is interesting that the fortification lengthens, *retentura* increasing much in surface and less to

³⁸⁹ Protase, Ardevan 1981, 303.

³⁹⁰ It was supposed, based on the towers shape, that the enclosure erection of stone took place by the end of Hadrian's reign, after Lander 1984, 48–66. The opinion is accepted in the recently published monograph of the fort at Gherla, Protase, Gudea, Ardevan 2008, 29, 41 with bibliography.

³⁹¹ The drawings of J. Ornstein are rendered in Fig. 27, 28 from Protase, Gudea, Ardevan 2008, 37, and the plan proposed by the monograph authors appears in Fig. 33a.

³⁹² For first researches see Macrea et alii 1959 and Rusu 1979.

³⁹³ See for the history of research Isac 1997, 9–14.

³⁹⁴ For the enclosure of the fort at Gilău, see Diaconescu 1984.

the south *praetentura dextra* and the central part of the old fort. Thus, *via praetoria* and the headquarters building will remain on the same location, being slightly decentred compared to *via decumana* located with a few meters southwards. *Praetentura* shall occupy under such circumstances only 16% of the total surface if the fortification, without taking into consideration the *sagularis* roads. *Praetentura dextra* shall be wider than *sinistra* by almost 20.00 m, a fact which had definite repercussions on the internal planning. *Via praetoria* shall be subsequently of 7.00 m wide and *via principalis* of 6.00 m in width³⁹⁵. The central part of the fort remains approximately the same, increasing also by c. 20.00 m southwards, occupying this time only 15% of the fort surface. The largest surface, becoming an almost 110 × 110 m square, would be *retentura*, engaging nearly 40% of the total fort surface. Since *via decumana* is located c. 7.00 m southwards the axis of *via praetoria*, differences between *retentura sinistra* and *dextra* would not be of essence.

Principia

The headquarters building was established four constructional phases, two of timber and two of stone³⁹⁶. During a first phase, within the small earthen fort, *principia* occupies 4.2% of the total surface, a normal value for a cohort fort.

Principia I. The headquarters building during its first phase is located on the fort axis set along *via praetoria* and *via quintana* with the *aedes* placed by mid distance of the building back side. The sizes of the constructions are of 27.75 (east-west) × 23.25 (north-south) m, situated on 645.20 m² and 4.3% of the fort total surface. The percentage is common, ranking midpoint compared to other forts from Dacia. The building was timber made, comprising apparently a large open space, possibly flanked by a portico³⁹⁷ and two buildings each on both sides of the *aedes* in the back side. I do not know the entrance span, yet the identified part of the front wall of the building is broader compared to the rest and has thickened corners. If the construction had only a courtyard with portico and rooms in the back side, the thickening of the walls in the front side was unjustified. Therefore, either the building was compartmented or the façade wall also carried the roof of a portico located towards *via principalis* with a c. 4.00 m space in-between.

The back rooms are 3.40 m deep and 5.00, 4.00, 4.00, respectively 3.75 m wide. The walls are interrupted in entrances area, being 2.35 m, except for the *aedes* entrance area, where it is 3.50 m. The *aedes* occupies 17% of the total surface of the back rooms, being aligned with the rest of the rooms and 5.00 m (17 m²) wide.

Principia II. As we have seen, when the fortification was enlarged, the commander's quarters remained in the same place with few differences regarding the surface³⁹⁸, the *aedes* being positioned on the gate *praetoria* axis and not on gate *decumana* axis. The headquarters building corresponding to the enlarged fort is sized 32.20 × 24.50 m (788.90 m²), occupying only 2.60% of the fort total surface. The percentage is very small, explicable only by the fact that the structure is reconstructed on the same location where set when the fortification was

³⁹⁵ After Isac 1997, 68.

³⁹⁶ For details, see Isac, Diaconescu, Opreanu 1983a.

³⁹⁷ Three prints of timber posts were identified, Isac 1997, 39.

³⁹⁸ See Isac 1997, 40.

much smaller³⁹⁹. The building comprises this time also a large-sized courtyard and a row of five rooms in the back side.

The courtyard is sized 28.40×24.15 m (695.80 m²) occupying an exceptional percentage of 88% of the entire building surface. This is the building portion which extends most, without any indication on the *basilica*. The *aedes* is sized similarly to the previous phase, irrespective of the different organization of the troop and our expectations of a larger strongroom. Yet, its depth would double during the following two construction phases. The alterations in the back side rooms area consisted in the emergence of two symmetrical corridors between the last and second last rooms on this side. We are not informed if any openings were identified in front of the back rooms during this phase, alike the case of the headquarters building from Inchtuthill, where such corridors appear exactly in the same location as at Gilău⁴⁰⁰. Therefore, their purpose was not to connect the rooms by the ends. They could have been passage ways from the headquarters building to *via quintana* and *retentura* or access ways to an upper storey (see *infra*).

Principia III. The third construction phase of the headquarters building is characterised by its stone revetment dated by the end of the 2nd century AD or the beginning of the subsequent. The plan is in principle similar to that in the preceding phase, without indication on the existence of a basilica. As such, the building is sized 29.75×25.20 m (749.70 m²), occupying only 2.50% of the fort surface. The back rooms are similar, have same depths and only the strongroom is added an apse, thus becoming approximately 7.00×5.00 m.

Principia IV. During the last construction phase, dated by mid 3rd century AD, the headquarters building is further enlarged to 1085.85 m², being sized 38.10×28.50 m. Thus, the building occupies 3.57%, a rather larger percentage of the total fortification surface.

The courtyard lies on 18.25×28.50 m (520 m²), with 47%, a normal percentage of the building surface. At this point also, a second court, sized 28.50×10 m (285 m²), occupying 26.20% of the total surface of the building was attached⁴⁰¹. Considering the relatively large sizes of the posts, they might have carried arches designed to support the large sized roof over what it seemed to be a basilica. In the north-west corner of the basilica, a **tribunal** was identified. In the strongroom area, where an apse was attached during the third phase, another wall was erected, the shape of the room being eventually rectangular⁴⁰². On both sides of the *aedes* only one compartmenting each existed. The room from the northern extremity of the building were provided with a heating system.

Since the sizes of the commander's quarters were more or less equal during all phases, in many of the areas partially overlapping, the existence of a basilica during the three construction phases of the building is very probable, the timber posts being probably aligned with the stone poles of the last phase.

Praetorium. The commander's building at Gilău (fig. 13) is located both in the small fort, as well as the enlarged one, on the headquarters building right. The structure had four constructional phases, characterised by different constructional techniques and detailed

³⁹⁹ See also Stanciu 1985, 222–3.

⁴⁰⁰ Pitts, St. Joseph 1985, 84–5.

⁴⁰¹ The poles or posts separating the first courtyard from the second were identified only during the last phase, see Isac 1997, 62.

⁴⁰² The author of the excavations considers this wall to represent an extra-support of the roof, see Isac 1997, 64.

plans⁴⁰³. Thus, during the first three constructional phases, the building is timber-made, while during the last phase it is erected in stone. The timber building corresponds during the third phase to the neighbouring stone headquarters building.

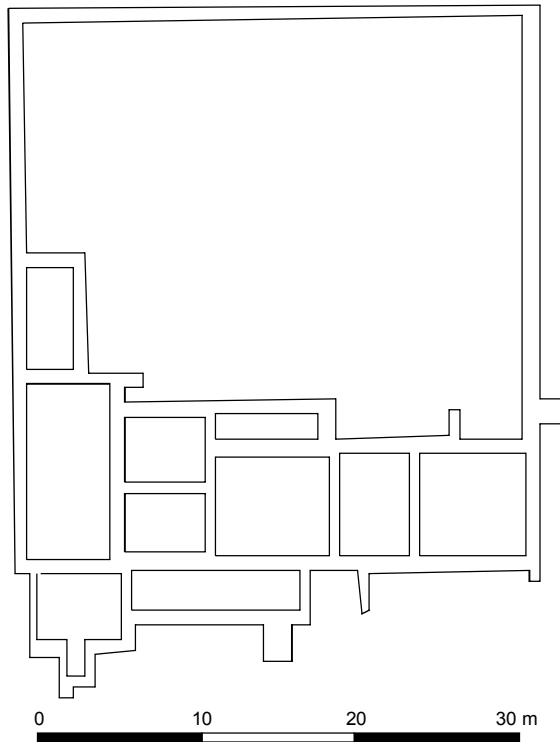


Fig. 13

The first *praetorium* is built at 11.00 m east to the headquarters building by *cohors I Pannoniorum*⁴⁰⁴, being sized 27.00 (east-west) × 26.00 (north-south) (702 m²) and lying on proportion of 4.68% of the fort surface, therefore close to the headquarters building of the same phase dated under Trajan. The building is made of timber posts placed in individual pits measuring 40–60 cm in diameter, being shorter compared to its last phase by 12 m.

The building plan consists of a central courtyard delimited on three sides by yet insufficiently clearly delimited compartments. We only know that the rooms on the northern side are 4.60 m deep.

During the second construction phase of the building, the posts of the timber walls were erected in 40–60 cm wide post trenches and were plastered in white. The planimetry consists of a central courtyard flanked by rooms, a row of

five 5.00 × 3.00 m rooms being distinguished in the northern side, the one from *via principalis* being 8.00 × 5.00 m. The compartments were paved with ‘battered mortar’, while the courtyard was paved by battered soil⁴⁰⁵. Other compartments were identified on the southern side and a corridor, fulfilling probably the role of portico was identified in the eastern side, along *via principalis*.

A similar plan is found in the case of the third construction phase, this time the construction of the walls also made use of wattle and daub.

Only during the fourth phase the commander’s building was stone-made, being erected in *opus incertum* and having initial sizes of 31.00 × 33.50 m (1038.50 m²) with a percentage of 3.40% of the fort surface. The building plan consists of a central courtyard delimited by several compartments on the side opposite to the entrance, by a room of larger sizes on the southern side and by a smaller subdivision on the northern side⁴⁰⁶. It is probable that the intermediary space of c. 2.50 m in-between the *praetorium* and *via principalis* might have been occupied by a portico.

Seven compartments of different sizes lied on the western side, the central (no. 8) and the one located in the north-west corner (no. 2) being of larger sizes compared to the rest of c. 7.00 × 6.00 m (42.00 m²), respectively c. 10.00 × 5.00 m (50 m²). The excavators considered it

⁴⁰³ For details see Isac, Hügel, Andreica 1994, 50–4.

⁴⁰⁴ A stamp of this unit was discovered within the level corresponding to this phase, Isac, Hügel, Andreica 1994, 51.

⁴⁰⁵ Isac, Hügel, Andreica 1994, 52.

⁴⁰⁶ See plan in Isac, Hügel, Andreica 1994, Abb. 22.

triclinium based on their sizes and the fact that the last employed a *hypocaust* system⁴⁰⁷. Or, the central position of the first room, opposite to the entrance and the existence of a hall (no. 7) in front, make it, more plausibly, a day dining room (*triclinium*). Yet, even more credible, the dining room function may be attributed to both rooms, having analogies in several cases with the civilian environment where summer and winter dining rooms existed. Since only the last of the two compartments were equipped with a heating system, it might have been used in colder seasons. The portico in front of the *triclinium* was also an entrance corridor to partitions adjacent to the room. They are divided transversally thus resulting 5.00 × 3.80 m (no. 4) and 5.00 × 4.20 m (no. 5), both heated. Hence, the bedrooms could have been located in this corner. Other two heated rooms (nos. 3, 6) were also attached here, the building becoming of c. 31.00 × 38.50 m (1193.50 m²) with 3.92% of the fort surface. Behind the central room no 8, other two compartments are built south. By mid northern side, another division of c. 6.00 × 3.00 m is added in extension to room no. 2 during a different phase and simpler construction technique.

Only one compartment was identified partially on the southern side, which, based on the discoveries inside, bones, snail shells, scallops, pottery and glass fragments was deemed kitchen⁴⁰⁸.

Inside the building courtyard an altar dedicated to Diana was found⁴⁰⁹. The sizes of this courtyard are also very large, occupying probably over 30% of the building surface as few compartments comparative to other forts or with a Mediterranean type house existed⁴¹⁰.

The building surface is not oversized⁴¹¹, yet in relation to the percentage of the *principia*, its percentage seems to be much reduced compared to other commander's quarters from *ala* forts. Within forts with cavalry garrison troops, the commander's quarters regularly occupies surfaces over 1500 m²⁴¹². The smaller sizes of the commander's quarters from Gilău are due, like the case of the headquarters building, to its location on the same place during all occupation phases of the fort. The rather normal percentage it has in the fort surface is due to the southward enlargement of the fortification.

Barracks

Four phases were established (fig. 14) for the soldiers' dwelling area, two of timber and two of stone⁴¹³. *Praetentura sinistra* was occupied, during a first phase, by barracks oriented *per strigas*, characterised by two rows of *arma* and *papiliones* rooms and a veranda.

Four barracks were identified, the first two from *via praetoria* being almost adjacent, while the other two exhibited intermediary spaces of c. 4.00 m. The barracks were of timber and the posts trench, 0.30–0.40 m wide, was noticed⁴¹⁴. Only the first of the barracks did not seem to have a veranda, hence the officer's room was not outwards projected either. The sizes of each of the barracks are of approximately 40.00 × 9.00 m (360 m²). Within the restored

⁴⁰⁷ After Isac, Hügel, Andreica 1994, 55.

⁴⁰⁸ After Isac, Hügel, Andreica 1994, 55.

⁴⁰⁹ Isac 1991.

⁴¹⁰ For a few comparative plans see Johnson 1987, Abb. 101.

⁴¹¹ It was compared to the commander's building from Cășeiu, see Isac, Hügel, Andreica 1994, 63.

⁴¹² See the case of the forts at Benwell or Chester, Snape, Bidwell 2002, 269. Similarly, in the fort at Ilișua, the commander's building is c. 1500 m² (see *infra*).

⁴¹³ Isac 1997, 30

⁴¹⁴ Isac 1997, 33.

plan, D. Isac considers that the barracks were compartmented in 10 *contubernia*, each sized c. 3.00 × 3.50 m⁴¹⁵. Therefore it results that the officer's room was only 5.00 m wide, c. 9.00 m long and 45.00 m² surface, thus occupying 12.5% of the total barracks surface. I emphasize that the officer's room usually occupies 30% of a barrack surface⁴¹⁶ as such, a smaller number of *contubernia* with an undoubtedly larger officer's room must have existed. Or, even within the quoted analogies, it occupies 25–40%⁴¹⁷. And so, three of the barracks from *praetentura sinistra* of the first fort at Gilău frame as type A established by D. Davison, while the barracks near *via praetoria* as type B⁴¹⁸.

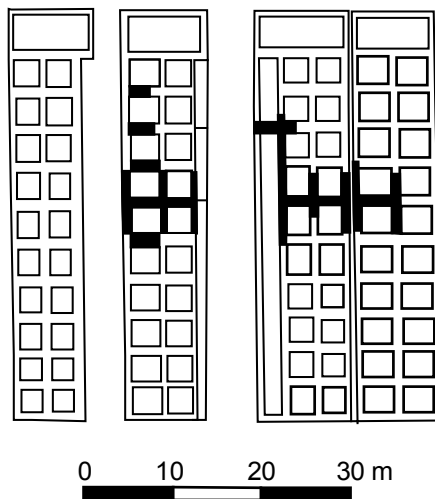


Fig. 14

Due to later intrusions, the complete plan of the barracks could be established, their extremities being restored based on analogies⁴¹⁹. The centurion's room from the simple barracks of *praetentura sinistra* could not have been projected on the indicated direction⁴²⁰. If it were so, it would mean that the veranda was placed in the back side of the barracks. The location of the veranda in front of the barracks and implicitly the officer's room projection to the opposite direction than supposed is much more likely⁴²¹.

In one of the compartments from the double barracks area, a kiln, partially attached to the plastered timber wall, was identified. Ca. 25 of pestles for *mortaria* were also found here. Hence, the author of the digs considered that a kitchen functioned there⁴²².

One barrack located in *retentura dextra*, at 8.00 m behind the commander's quarters, is part of the first occupation phase of the Gilău fort as well⁴²³. The plan of the barracks is similar to those simple barracks from *praetentura* with 10 *contubernia*, veranda and one very small-sized officer's room. Nevertheless, it is obvious that the officer's room projection could not have lied alike in the plan restored by the excavator, but rather eastwards, the same direction where the veranda emerged opening to *via quintana*. The sizes of the officer's room must also have been quite large.

Upon the troop change, the barracks from *retentura sinistra*, arranged *per strigas*, are sized 56.50 × 7.50 m (423.75 m²) (fig. 15), thus framing in type B established by D. Davison⁴²⁴, with 10–12 *contubernia*, equal *papiliones* and *arma*, each of 3.50 × 4.00 m (14.00 m²), with no

⁴¹⁵ Isac 1997, 32, Pl. V.

⁴¹⁶ Davison 1989, 91–2, 95.

⁴¹⁷ Schönberger 1975, 27–38, Fig. 1/1; Davison 1989, Pl. 6. For centurion rooms sizes in general, see Davison 1989, 95.

⁴¹⁸ Davison 1989, Fig. A.

⁴¹⁹ The analogies 'invoked' in connection to the barracks are the forts at Fendoch and Künzing I, see Isac 1997, 32.

⁴²⁰ Isac 1997, 32.

⁴²¹ These barracks are framed D. Davison's type A or D, should the officer's room have been indeed outwards projected or even type C, in case this projection was lacking, see Davison 1989, Fig. A.

⁴²² After Isac 1997, 33. Evidently, soldiers made their own food in *contubernium* (see *infra*).

⁴²³ The excavator believed, failing to bring any arguments that the barracks belonged to another troop than the fort garrison during the first phase, see Isac 1997, 32, Pl. 9.

⁴²⁴ Davison 1989, Fig. A.

veranda and the officer's room on the same line with *contubernia*. The officers' rooms are located towards western *via sagularis* being longitudinally partitioned in two equal parts.

By their end, there are two compartments similar to one *contubernium* which the author of the excavations considered to accommodate the equeries⁴²⁵. Yet, such thing is rather unlikely since, first of all, they were definitely part of the ensemble meant for the decurion. Moreover, in no *ala* fort were identified spaced intended especially for those *calones*, as it was supposed they were housed in the roof area⁴²⁶. The compartments could have been dwelled by *principales* or even used as stables for the officers' horses⁴²⁷. The officer's room is sized in total of c. 14.00 × 7.00 m (98.00 m²), occupying 24% of the total surface of the barracks, the rest of 76% being occupied by *contubernia*.

The horse waste pits, similar to those encountered in other forts, are arranged east-west, perpendicular on the building length, having lengths equal to almost the entire depth of the rooms named *papiliones*, widths of 0.60–0.75 m and depths of 0.40–0.50 m⁴²⁸.

From northern *via sagularis* the space is occupied by a stable-barracks, while southwards, after a 4.00 m interval, follow other two stable barracks with an interval of 1.50 m in-between. Hence, when the fort garrisoned an *ala*, it must have accommodated 16 barracks corresponding to the 16 *turmae*. Two long cross-made trenches led to the identification in *retentura sinistra* of three buildings whose functionality proved to be that of barracks combined with stables, in other words with double functionality⁴²⁹. These barracks/stables would be eventually built in stone⁴³⁰. Another three or four barracks-stables must have lied in *retentura sinistra*, one parallel with *via quintana*, also *per strigas*, and other two or three from *latera* arranged *per scamna*. The planning must have been the same in *retentura dextra*. Therefore, sufficient space remained in *praetentura* for constructions not intended as barracks, like building A.

Within the phases contemporary to the enlarged fort, after the arrival of the cavalry troop, the situation from *praetentura sinistra* changes, yet, the archaeological diggings hindered by medieval intrusions did not lead to the establishment of a coherent plan. We know for certain that the last two phases of the constructions from *praetentura sinistra* are of stone⁴³¹.

The plan of the so-called 'building A' (fig. 16), as much as it was uncovered, from the *praetentura* of the last phase, seems very odd, the sizes of c. 41.00 × 41.00 m⁴³² making impossible its association with a barrack, even though double. Nonetheless, in the *ala* forts where barracks-stables were identified, other barracks types do not appear, since a mixed barracks belonged to each *turma* housing both horses and horsemen.

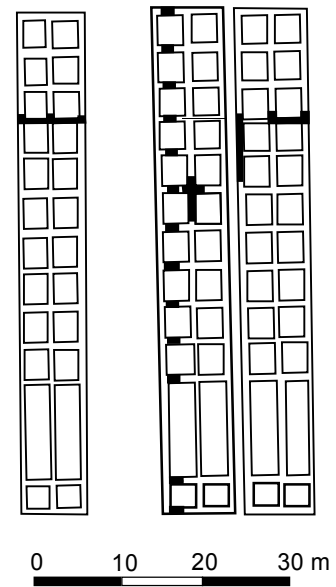


Fig. 15

⁴²⁵ Isac 1997, 45.

⁴²⁶ See Sommer 1995, *passim*; Hodgson 2003, 84

⁴²⁷ The decurion benefited of three horses, while the *principales* of two, Hyginus 16.

⁴²⁸ After Isac 1997, 45.

⁴²⁹ Isac 1997, 44–5, with the basic references on the subject.

⁴³⁰ Isac 1997, 46. Yet again, there is no certain proof that they were only stone groundwork for timber superstructures.

⁴³¹ Isac 1997, 42. There is no evidence that the entire superstructure was stone made, as in general, the walls are at very little depth.

⁴³² After Isac 1997, 69.

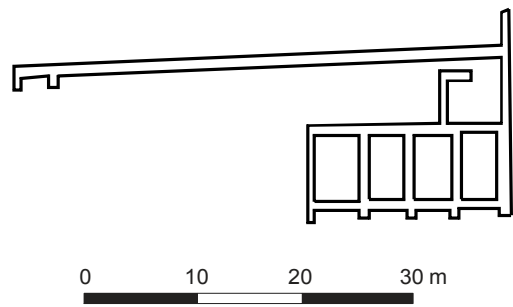


Fig. 16

As such, building A must have represented something else than a barrack, its functionality being difficult to establish for the lack of more accurate data. The building planimetry, as much as we know about it, does not indicate either that this building was a barrack. We only know that there are four connected rooms sized c. 5.80 × 3.80 m and one long and narrow hall eastwards, which extends until close to northern *via*. The building walls are made of *opus*

incertum, very good quality *opus signinum* floors being found within the rooms⁴³³. Inside the hall, paved with a pebble layer, an incomplete platform made of c. 0.55 × 0.40 m rectangular bricks, was discovered. Likely, the building might have extended eastwards, since the southern outer wall seems to run over the eastern limit of respective hall. As a result, the building could have been largely sizes with rooms arranged on both sides of a corridor.

Troops

The identification of the first troop as *cohors I Pannoniorum equitata*, which constructed and quartered the small earthen fort at Gilău, seems probable⁴³⁴. The 1.50 ha sizes of the fortification, although slightly small, are also adequate for a *cohors quingenaria equitata*⁴³⁵. Thus, if *praetentura dextra* was occupied by as many barracks as *praetentura sinistra*, all eighth barracks necessary for the infantry of a *quingenaria* troop would have been place in the front part of the fort. The four barracks-stables corresponding to the 4 *turmae* had therefore enough space to be arranged, this time *per scamna*, in *retentura*.

Cohors I Pannoniorum equitata veterana is attested in Germania Inferior by the diploma from AD 98 (RMD 216) and in AD 103/107 (CIL XVI 54) in Moesia Superior. Subsequently, it is recorded by the Dacian diplomas of 109 (RMD 148 = IDRE II 307) and 110 (CIL XVI 163 = IDR I 3). A troop prefect is mentioned in one inscription from Sarmizegetusa⁴³⁶.

In Moesia Superior, the troop is mentioned again within the diplomas from AD 150/151 and 156/157⁴³⁷, 158/159⁴³⁸; 159/160 (CIL XVI 111); 161 (RMD 55) and 165 (CIL XVI 120).

Evidence that the troop is *equitata* is given by the military career of Tib. Claudius Agrippa as mentioned by the honorific inscription from Termessus (Pisidia), under Hadrian-Antoninus Pius⁴³⁹.

Ala Siliana is recorded under Nero in Africa Proconsularis, then after his death in Italia, under Vespasian in Germania Inferior and under Domitian, Nerva and Trajan in Pannonia⁴⁴⁰. Starting with Hadrian's reign, the garrison of the Gilău fort would be unquestionably *ala Siliana* as shown by the internal planning of the fort, numerous tile stamps and inscriptions attesting the troop presence here⁴⁴¹. The troop is as early as March/ April

⁴³³ See Isac 1997, 68–9.

⁴³⁴ The arguments consist in the discovery in *praetorium* of a stamped tile, see Isac 1997, 14–5, Pl.IV/1.

⁴³⁵ For analogies, see Breeze, Dobson 1969, 19, 23–30.

⁴³⁶ CIL III 90 = AE 1972, 466.

⁴³⁷ Eck, MacDonald, Pangerl 2002, 420.

⁴³⁸ Mirković 1999, *passim*.

⁴³⁹ AE 1929, 125; PME C 115. See also Petolescu 2002, 119.

⁴⁴⁰ See Isac 1979 and Isac 1997, with bibliography. For the detailed troop history see also Spaul 1994, 200–3. Additionally, it is mentioned in the diploma from Pannonia of AD 83 (RMD 210).

⁴⁴¹ Isac 1979, *passim*.

119 AD in Pannonia Inferior⁴⁴², hence its transfer to Dacia was made subsequent this date. In Dacia Porolissensis the troop is attested by the diplomas from AD 133 (IDR I, 11 = RMD 35); 151 (Isac 2001); 154 (IDR I, 17 = RMD 47); 164 (IDR I, 18 = RMD 64; CIL XVI, 185 = IDR I, 19; RMD 287).

The troop's tile stamps were also identified in the neighbouring settlement at Viștea, yet they are of different type compared to those from Gilău⁴⁴³. They might have originated from official constructions, since no other fortification existed in the area⁴⁴⁴. Soldiers or veterans of the troop at Gilău are mentioned in one inscription from Agrij (CIL III 840), c. 80 km north of Gilău or within inscriptions from Gîrbău, at 17 km north-west of Gilău⁴⁴⁵, proving the existence here of civil settlements, however unidentified, or of official buildings of *statio* type⁴⁴⁶.

6. ILIȘUA

The first information referring to the fortification at Ilișua and to materials identified in the area come after mid 19th century from C. Torma, subsequently taken over by Th. Mommsen⁴⁴⁷. The archaeological excavations in the fort and *vicus* were resumed only in 1978⁴⁴⁸.

The fortification (pl. 9, 10) is at approximately 30 km north-east from the fort at Cășeiu, on a plateau named 'Măgura' or 'Cetate', in the south-eastern edge of the current village, on the left bank of river Ilișua flowing into river Someșul Mare. It is one of the most important fortifications in the area, intended for the surveillance of the valley of Someșul Mare and Țibleș mountains located north of the fortification.

In the case of the fort at Ilișua, three occupation phases of the enclosure were established, two in timber and one in stone, the first being, alike at Gilău, of smaller sizes (pl. 9)⁴⁴⁹. The first fort is sized 140.00 × 130.00 m (1.82 ha), two *fossae* being identified around the enclosure⁴⁵⁰.

Subsequently, the fortification would be enlarged preserving from the ancient route only part of the south-west precinct and *porta decumana*. The troop erecting this enlarged fort is *ala I Tungrorum Frontoniana*, arrived in Dacia by the beginning of Hadrian's reign. Due to the discoveries inside the fort, more precisely, of consistent levels of burn, the restoration of the second fort of earth and timber into stone is considered to have taken place during or after the Marcomannic wars⁴⁵¹. During the last two phases, the fortification measures 182.20 × 181.50 (3.30 ha) (pl. 10), with *porta praetoria* located in the middle of the short north-eastern

⁴⁴² Eck, MacDonald, Pangerl 2004, no. 1.

⁴⁴³ Isac 1979, 56.

⁴⁴⁴ See Marcu 2004, 572.

⁴⁴⁵ Isac 1979, 56.

⁴⁴⁶ The inscriptions are used as arguments to prove the existence of veteran settlements here, after Isac 1979, 56.

⁴⁴⁷ C. Torma's excavation took place between 1858–1862, see Torma 1865, 10–67; CIL III 786–820, 7626–7629 (inscriptions), 1633, 8074, 8076, 8077 (tile stamps). For other epigraphic discoveries see Protase 1957; Protase 1961. One of the most interesting inscriptions is reading that a decurion (?) erected a temple, probably for the *Genius* of the decurions college: *P. Ael(ius) Pauli / nus templ(um) / Instituit / pro se suorumque / salute / Genio Sanc / to scholae de / curionum* (CIL III 7626). It proves the erection of a temple dedicated to the *Genius* of the decurions college near the fort, in the baths area below which C. Torma had identified a building with an apse, see Marcu 2007b, *passim*.

⁴⁴⁸ Site reports were completely published in Protase, Gaiu, Marinescu 1997, 6–44.

⁴⁴⁹ Protase, Gaiu, Marinescu 1997, 15.

⁴⁵⁰ See Gaiu 2006, 210–211.

⁴⁵¹ After Protase, Gaiu, Marinescu 1997, 46.

side. During the second phase, the enclosure comprises two, and in the third phase, three defence ditches⁴⁵².

At first sight, the oddity of the fort general plan consists in the fact that, proportionally, the *praetentura* is slightly longer than the central area and *retentura* together. It is probably due to the land configuration, sharper behind *retentura*.

During the last two phases, *via praetoria* was c. 76.00 m long, 6.50 m wide initially and 8.60 m subsequently⁴⁵³. *Via principalis* was approximately 172.00 m long and 8.00 m wide, while *via quintana* was 34.00 m long and only 6.00 m wide. *Porta praetoria* was not on the same axis with *porta decumana*. Hence, from the old earthen fort of 1.89 ha, with a cohort in garrison, *porta decumana* and *via decumana* would preserve. The headquarters building, although on the same position, would be slightly displaced, entrance within the enlarged fort being made from *via* and gate *praetoria* axis. We do not know for sure if *portae principales* were on the same location during both phases of enclosure construction. It is obvious that the fort, then garrisoned by an *ala*, would have larger width and increased sizes in the *praetentura* direction. Thus, within the enlarged enclosure fort, *praetentura* occupies together with *via praetoria* almost 50% of the fort surface, while *latus* only 20%, and *retentura* 18%.

In *latus sinistrum*, at 25.00 m from the enclosure wall inwards, no construction was found, therefore it was concluded none had existed in the area⁴⁵⁴.

Principia (fig. 17)

The entrance was located on *via praetoria* axis, by mid distance in-between *portae principales* and at few meters from *via principalis*, yet at unequal distance from the building corners, the southern half being c. 2.00 m wider than the northern half. Only the stone phase of the headquarters building was uncovered entirely, except for the courtyard in front, where a few trial trenches only were performed. In this area, prints of a timber building, demolished by fire, were also identified; its plan is incomplete as only the prints of some of the timber walls could be found⁴⁵⁵. The last information on the timber building confirms the existence on the same place of the building with classical plan, a courtyard delimited by rooms on only one side and five rooms on the back side⁴⁵⁶. The existence of a basilica is not signalled either.

The plan of Gilău, where the headquarters building of the cavalry troop preserved the same plan of the structure quartering a cohort, seems to have been similar to that at Ilişua. Additionally, five rooms were placed in the back side of the timber structure, being 27.00 m wide⁴⁵⁷.

The headquarters building is erected in stone under Hadrian, when at Ilişua is transferred *ala I Tungrorum Frontoniana*, which honoured Hadrian in AD 131 by an

⁴⁵² Including the post prints of the timber enclosure palisade were discovered, located partially under the enclosure wall, after Protase, Gaiu, Marinescu 1997, 7–9.

⁴⁵³ See Protase, Gaiu, Marinescu 1997, 53.

⁴⁵⁴ After Protase, Gaiu, Marinescu 1997, 7. Probably due to the excavation system, usually with narrow trenches of 1.20 m maximum wide and the fact that the majority of the walls have been removed, the buildings which would have normally existed in the area were not noticed.

⁴⁵⁵ In the plan presented by D. Protase and his team, the *principia* of the first phase seems to be a building with a courtyard delimited by lateral rooms without a *basilica*, see Protase, Gaiu, Marinescu 1997, Pl. IX.

⁴⁵⁶ Gaiu 2006, 211.

⁴⁵⁷ Protase, Gaiu, Marinescu 1997, 22.

inscription erected precisely in the building courtyard⁴⁵⁸. Nearby, a platform on which the inscription and the emperor statue most likely stood was identified.

The building had then 34.00×32.80 m (1115.20 m²) in size, occupying 3.36% of the fort surface. The entrance appears as a span of 6.00 m wide in the front wall of the building.

The courtyard in front is paved with local volcanic tuff slabs and is sized 21.00×15.70 m occupying c. 29.50% of the building⁴⁵⁹. It is flanked by two prolonged compartments of c. 4.50×15.00 m (S/E), respectively 3.90×15.00 m (SV) considered to be, based on analogies, *armamentaria*⁴⁶⁰. Partitions were noticed, during the first phase, only on the northern side of the *praetorium*, close to the back side rooms, where a basilica would have been generally placed⁴⁶¹. The two compartments are sized 3.80×4.30 m, respectively 5.40×3.40 m.

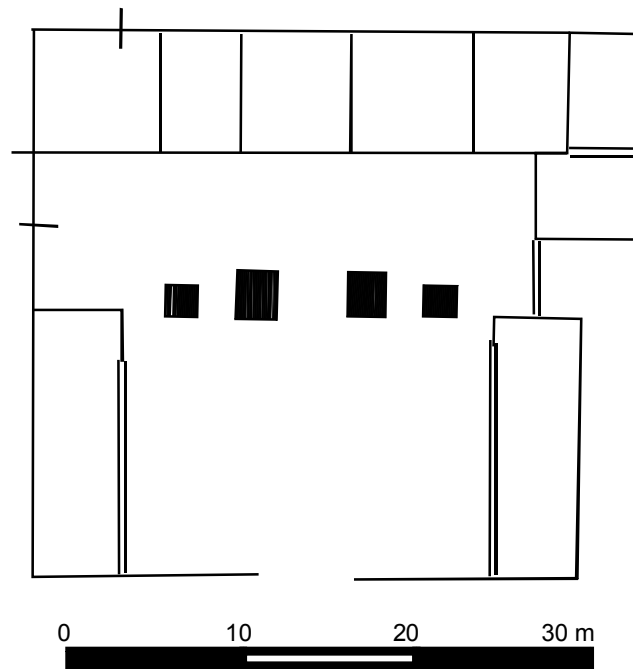


Fig. 17

Between the front courtyard and basilica four large pilaster bases were discovered, two central with 2.00 m sides and two lateral of 1.50 m side each⁴⁶². The span they created in 3.50 m centrally and 2.50 m laterally, evidently forming impressive arches.

Basilica is thus sized 12.00×24.00 m (288 m²), occupying 25% of the fort surface. The roof must have been made of tiles, since many were discovered in the debris; it was paved by a layer of pebbles and large stone slabs. Large stone blocks and staircase traces were found by the entrance from the front courtyard⁴⁶³. A room was attached to the northern end of the basilica, extending on the entire depth of the back side rooms, exceeding by c. 4.00 m the building outer line.

In the back side, bordering the *aedes*, there were identified in both construction phases of the fort, beside the mentioned annex two compartments each, differently sized. During the first phase, the rooms were sized 5.40×5.00 ; 4.10×5.00 ; 6.50×5.00 ; 4.80×5.00 ; 3.40×5.00 m. The *aedes*, dimensioned c. 7.00×6.30 m (44.10 m²) in the stone headquarters building was not located perfectly on the entrance axis, but on the *via praetoria* axis, since, as we have seen, the entrance into the building was not placed precisely in the middle of the front wall. Some of the rooms on the back side were provided with a heating system.

⁴⁵⁸ Protase, Gaiu, Marinescu 1997, 50, pl. LXXXVI.

⁴⁵⁹ So far, no *porticus* was identified, yet the courtyard was only partially researched, see Protase, Gaiu, Marinescu 1997, 50.

⁴⁶⁰ The excavators consider the compartmenting of these large divisions as probable; since to excavate the entire area was difficult, such compartmenting walls were not identified, see Protase, Gaiu, Marinescu 1997, 50.

⁴⁶¹ See Gaiu 2006, 211.

⁴⁶² Protase, Gaiu, Marinescu 1997, 51.

⁴⁶³ Protase, Gaiu, Marinescu 1997, 51.

The lateral walls of the *aedes* extend outwards with two buttresses, evidence of the large height of this building. Buttresses were also identified on the southern side of the basilica, not required on the opposite side due to the existence of the mentioned annex.

Praetorium

C. Torma published an inadequate plan of the commander's quarters (fig. 18). Traces of the similar construction of timber, also burnt, were discovered. The commander's quarters is located on the right side of the headquarters building, at 17.00 m from it and the south-east enclosure. The building is sized 42.00 × 36.50 m (1533 m²), occupying c. 4.50% of the total fort surface. The stone construction was preceded by one in timber of which only part of the timber uprights post trenches were recognized, having 0.40 m in width and 0.40–0.50 m in depth⁴⁶⁴.

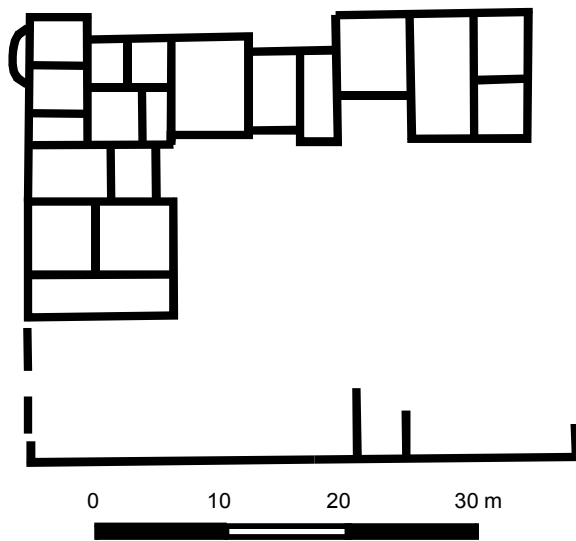


Fig. 18

The structure most likely comprised a central courtyard, a total number of 20 unequal compartments were found to border it on the south-west and south-east sides. The partitions on the side from *via sagularis* are more complex, and seemingly positioned on two rows. Finally, the building was not completely researched, its status from *via principalis* and the headquarters building being unclear. In the part from *via principalis*, only the outer wall of the building was visible, parallel with *via principalis*. Two parallel walls, perpendicular on the north-east side, which could have represented an entrance, were observed close to the middle of the side from *via principalis*. If so,

the room in front, from the back side of the building, slightly withdrawn compared to the alignment of other compartments on the same side, represents a *triclinium*. A hall running northwards (the compartment named conventionally, o) was identified in this room and in front of the north rooms from it, whose wall could be a *stylobat*, forming a space with portico, similar to that in front of the central dining room from Gilău. Similarly, the compartment named conventionally n, very long and narrow, perpendicular on the first portico, could represent the ambulatory which delimited the courtyard on the southern side.

During a later period, new rooms were attached, the construction technique of such walls being rudimentary. Some of the buildings in the south corner are provided with *hypocaust*⁴⁶⁵, being probably part of a thermal installation⁴⁶⁶.

***Valetudinarium* (?)**

The building identified as hospital is located at 13.00 m north-west from *principia*, in *latus sinistrum*. The structure was considered as such due to its position and sizes, without benefiting of sufficiently clear evidence. Nonetheless, neither the position nor the inside

⁴⁶⁴ After Gaiu 2006, 211.

⁴⁶⁵ Protase, Gaiu, Marinescu 1997, 52.

⁴⁶⁶ Isac, Hùgel, Andreica 1994, 48.

compartmenting do not allow such a conclusion⁴⁶⁷. As planimetry, the plan is said to be rectangular, similar to that of a *horreum*, consisting of a rather large hall partitioned in two sectors sized 10.00 × 12.80, respectively 10.15 × 16.40 m, with a total surface of 31.70 × 11.70 m⁴⁶⁸. Within its walls, several reused architectural and monuments fragments were discovered. Additionally, along the walls of 0.70 m thickness, a series of column bases and pillars, evidence of its monumentality, surfaced.

Nonetheless, the plans of several hospitals from other provinces, especially from Britannia, are characterised by a lobby or a courtyard delimited on four, three or two sides, by chambers⁴⁶⁹. Or, within the fort at Ilişua, precisely the courtyard and chambers are missing. The position of the building is not standard either, and there are no known analogies⁴⁷⁰. Moreover, the single medical tools from Ilişua were found in *praetorium* and barracks⁴⁷¹.

Even if archaeological digs in the area were superficial, such rooms and courtyard could not be overlooked. Consequently, I believe that the building was more plausibly a storage room.

Horreum

A *horreum* was probably located near the supposed hospital, where charred wheat and traces of a burnt timber building were identified, without knowing any information referring to its plan or construction.

Barracks

Inside the fort at Ilişua there were identified six barracks (fig. 19), four in *praetentura dextra* and two in *praetentura sinistra*⁴⁷². Some of the six barracks were partially researched and the other almost entirely. In *retentura* traces of several barracks walls, whose plan differ during the two different phases of the fort, were observed⁴⁷³. The barracks had during both construction phases a single row of rooms of 3.40 × 3.80 m and a veranda, initially 1.70 m wide and 1.10 m afterwards⁴⁷⁴.

It is odd that during the three construction phases of the barracks at Ilişua the plans are similar and seem to overlap⁴⁷⁵. Considering the organization differences of the troops succeeding here, it is hard to believe that the soldiers from *ala* would have preferred identical arrangements, without taking into account housing the horses, especially since the barracks of the first phase were demolished and covered with a levelling layer, as described by the excavator⁴⁷⁶. Four 9.00 m wide barracks and 3.30 m wide compartments

⁴⁶⁷ After Marcu 2006, *passim*.

⁴⁶⁸ Protase, Gaiu, Marinescu 1997, 52.

⁴⁶⁹ With analogies Marcu 2006, 463–5.

⁴⁷⁰ See Marcu 2006, 465.

⁴⁷¹ Marcu 2006, 465.

⁴⁷² Within the rendered plan, five barracks appear yet in *praetentura dextra*, thus resulting a total of seven barracks, see Protase, Gaiu, Marinescu 1997, Pl. VIII, 52–3.

⁴⁷³ See Protase, Gaiu, Marinescu 1997, 34.

⁴⁷⁴ We do not have any information referring to the exact location of the barracks (Protase, Gaiu, Marinescu 1997, 34), yet the single parallel trenches with *via decumana* seem to have been traced in *retentura dextra*, see excavation plan in Protase, Gaiu, Marinescu 1997, Pl. VIII.

⁴⁷⁵ Gaiu 2006, 211.

⁴⁷⁶ Gaiu 2006, *passim*.

corresponding to the first phase of the fort were noticed in *praetentura dextra*⁴⁷⁷. A barrack with a veranda, compartmented into 8 *contubernia* of c. 3.00 m widths was researched in *praetentura sinistra*⁴⁷⁸. In *retentura dextra* of the small earthen fort, a barrack with a 1.00 m deep veranda and *contubernia* divided into subdivisions of 3.50 × 4.00 m each was partially researched⁴⁷⁹.

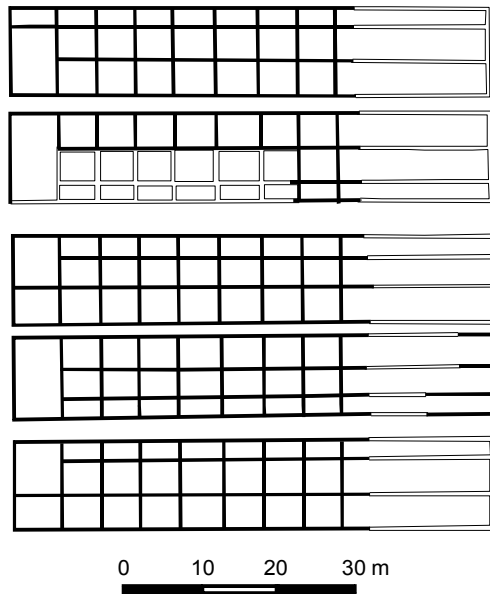


Fig. 19

The barracks were placed *per scamna*, being identified three construction phases contemporary with the three enclosure phases, all barracks being erected only in timber with floors made of battered earth⁴⁸⁰. The constructions of the first two phases were destroyed by fire. During a first phase, the barracks had probably had only one row of rooms, the posts trenches being c. 0.30–0.35 m wide⁴⁸¹. The authors of the excavations had maintained, yet, in an excavation report from 1985 that the barracks were compartmented, two rows of rooms and of one veranda being observed to one barrack from *praetentura sinistra*, along *via principalis*⁴⁸². The compartments of the barracks are 3.20 m wide. Or, the most interesting remark: ‘in front of the barracks rooms, several alveolate-shaped pits were uncovered in a row, whose role we cannot

specify...’⁴⁸³, may indicate that the barracks belonged in fact to the enlarged fort and the cavalry troop, especially since the pits seems to partially overlap the walls posts trenches⁴⁸⁴. Lately, when fort research has become more advanced, it becomes increasingly obvious that in the case of the forts that garrisoned cavalry troops (*cohortes equitatae* or *alae*), each *turma* had its own barracks accommodating the soldiers in *papiliones* and the horses in *arma*. In Dacia such barracks were discovered, as mentioned, at Gilău and probably at Cășei, after the first was occupied by *ala Siliana* and the second by a *coh. ∞ equitata*. One would certainly expect that Ilișua also presented such characteristics. But there is no information regarding the existence in *arma* of horse waste pits. Nevertheless, in some of the *alae* forts from the Empire, such pits were found not in *arma*, but in their front. Series of regular, yet square pits were

⁴⁷⁷ After Gaiu 2006, 211.

⁴⁷⁸ Gaiu 2006, 212, Fig 4.

⁴⁷⁹ Gaiu 2006, 212, Fig 5.

⁴⁸⁰ The discovery spot of certain ‘kilns’ is not specified, see Protase, Gaiu, Marinescu 1997, 52.

⁴⁸¹ After Protase, Gaiu, Marinescu 1997, 52. Similar constructions, with barracks characteristics were identified at Haltern, Rödgen, Walheim, Hod Hill, Baginton, The Lunt, Iža Léanyvár or even Potaissa. Barracks of the type were considered to belong to lightly armed soldiers or were only temporary, being erected to serve for a short period similar to the tents in the march forts, thus comparing with provisional and smaller sized *principia* from Inchtuthill, see Kortum, Lauber 2004, 382–90, Abb. 177.

⁴⁸² See Protase, Gaiu, Marinescu 1997, 25.

⁴⁸³ After Protase, Gaiu, Marinescu 1997, 25–6; see also Gaiu 2006, 212, Fig. 4.

⁴⁸⁴ In fact, within the barracks there were discovered including coins from Hadrian (Protase, Gaiu, Marinescu 1997, 26), probably subsequent the transfer here of the cavalry troop. Recently, C. Gaiu supposed that such alveols could indicate that the building was a stable indeed, considering therefore that the first troop at Ilișua must have also been *equitata*, Gaiu 2006, 212.

discovered in front of each *contubernium* belonging to barracks at South Shields or Heidenheim, deemed horse waste pits as well (see *infra*)⁴⁸⁵.

The excavators of the fort at Ilişua maintain that each barracks was composed of two rows of rooms (*papiliones/arma*), placed back to back, each row having its own veranda of 1.50–1.70 m wide⁴⁸⁶. Only one barrack made exception.

Regarding the barracks sizes, one may argue they are rather wide, being 65.00 × 11.00 m, the occupied surface of c. 715 m² being regular for fortresses. Barracks of similar sizes are also found in the forts at Aalen and Heidenheim (80 × 9.5 m = 760 m²)⁴⁸⁷, which probably quartered *alae milliariae*. The sizes of one *contubernium* vary between 3/3.70 × 4/4.50 m. In-between the barracks there is a 4.00–4.60 m free space and between those located back to back it is c. 1.50 m.

It is hard to believe that the veranda was divided in several compartments, one in front of each *arma*, a case without precedence or analogy within the Empire. One may not exclude yet that post trenches had extended also transversally in the veranda without the existence of a superstructure in this corridor, therefore of proper compartments. Additionally, I do not believe that the walls separating *papiliones* from *arma*, respectively *arma* from the veranda should have run in the same direction in the officer's room as well, as rendered in plan. It is difficult to interpret the lack of the officer's room in the case of the barracks from *praetentura sinistra*⁴⁸⁸, in fact the only ones examined on their entire length. The barracks had been, at least during the last phases, covered with tiles, since many tiles bearing the stamp of the troop *ala I Tungrorum Frontoniana* were found⁴⁸⁹.

Troops

If, regarding the troop which constructed and quartered the large earthen and subsequently, stone fort, issues were almost certainly clarified, as *ala I Tungrorum Frontoniana* was known here, questions related to the troop erecting the first earthen fort still remain unsolved.

Within the levels corresponding to the first phase, tiles stamped by cohort *II Britannorum*⁴⁹⁰ and legion *XIII Gemina* were discovered⁴⁹¹.

The sizes of the first earthen fort may suit both a *milliaria* as well as a *quingenaria equitata* troop. Cohort *II Britannorum* may have been quartered either at Ilişua or Căşeu. At Căşeu, *cohors I Britannica* might have been garrisoned during a first phase as it was attested in the army of Dacia as early as AD 109, should it not be quartered in the fort at Slăveni⁴⁹².

Beside the *II Britannorum* cohort, *legio XIII Gemina* is also mentioned during the first phase. It is hard to believe that a vexilatio of this legion would have comprised c. 1000 men and that it was quartered here for over 15 years. Hence, one may speak about this legion vexilations present for the fort construction, alike the case of other forts from Dacia.

⁴⁸⁵ See Hodgson 2002, 888, Fig. 5.

⁴⁸⁶ Protase, Gaiu, Marinescu 1997, 52.

⁴⁸⁷ Davison 1989, 81.

⁴⁸⁸ With the barracks located in *praetentura dextra*, the existence of a modern road hindered the research of the barracks ends, see Protase, Gaiu, Marinescu 1997, Pl. VIII.

⁴⁸⁹ Protase, Gaiu, Marinescu 1997, *passim*.

⁴⁹⁰ For the troop history and references on the matter, see Isac, Marcu 1999, 585–7.

⁴⁹¹ Protase, Gaiu, Marinescu 1997, 55.

⁴⁹² Isac, Marcu 1999, 588.

Ala I Tungrorum Frontoniana is transferred from Germania Inferior⁴⁹³ to Dalmatia⁴⁹⁴, being subsequently attested in Pannonia by the diplomas from AD 80 (CIL XVI 26); 83 (RMD 210); 84 (CIL XVI 30); 85 (CIL XVI 31) and next in Pannonia Inferior by diplomas from AD 110 (CIL XVI 164) and 114 (CIL XVI 61; RMD 87; RMD 152). The first evidence of the troop from Dacia Porolissensis is the inscription discovered in the headquarters building of the fort at Ilișua from AD 131 (see *supra*), being afterwards attested in the diplomas from AD 133 (IDR I 11 = RMD 35); 151 (Isac 2001); 154 (IDR I 17 = RMD 47) and 164 (CIL XVI 185 = IDR I 19; IDR I 18; IDR I 20).

Obviously, the troop was, in Dacia Porolissensis, the garrison of the fort at Ilișua, where it is evidenced by many inscriptions and tile stamps. There are still doubts concerning the presence of the troop in Banat where, at Vârșeț, a *signifer* dedicated a grave stone to his deceased spouse (CIL III, 6274 = IDR III/1, 107), probably sometime during AD 114 (RMD 87), the last attestation of the troop in Pannonia Inferior and Hadrian's reign when the troop is quartered at Ilișua. At Pojejena, also in Banat, a bronze plate recording *a(lae) Frontonian(ae), (turma?) Valeri Firmi* was identified⁴⁹⁵.

7. LIVEZILE

The fort at Livezile is placed strategically south of Rodna pass and, by 12 km in straight line, north of the fort at Orheiul Bistriței.

The excavations from 1960–1961 aimed at identifying the enclosure, while of nine trenches only one was dug inside the fort⁴⁹⁶. The accumulation layer inside the fort was extremely thin (15–25 cm), consisting especially of pottery shreds, prints being spread only within the fortification.

The authors of the archaeological excavations maintain that Livezile is probably a marching camp or one that endured for short time and provided analogies from Orăștie Mountains, Banat, Muntenia or Sighișoara⁴⁹⁷. The authors presumed that one of the troops that could have occupied the fort was that from Orheiul Bistriței, *cohors I Hispanorum milliaria*, which could have stationed here during a period previous to the fort at Orhei, thus dating the fort at Livezile prior the earthen enclosure of the Orhei fortification, when 'the Romans were still in search of an adequate strategic location'⁴⁹⁸.

8. ORHEIUL BISTRITȚEI

Two construction phases of the enclosure were also established for the fort at Orheiul Bistriței, the first fort being slightly smaller than the subsequent stone fort (pl. 13)⁴⁹⁹.

From the fort inside only two buildings are known, excavated unfortunately only partially; they supposedly represented the headquarters building according to location, respectively the *termae*, following the discoveries in the interior⁵⁰⁰.

⁴⁹³ Alföldy 1968, 38–40.

⁴⁹⁴ CIL III, 9735.

⁴⁹⁵ Gudea 1982a, 55, no. 8

⁴⁹⁶ Protase, Dănilă 1968, 533.

⁴⁹⁷ Protase, Dănilă 1968, 538.

⁴⁹⁸ Other authors associated this fort with the existence of a hypothetical stone quarry, see Protase, Dănilă 1968, 539–40.

⁴⁹⁹ Macrea, Protase, Dănilă 1967, 114. We do not know which the argument was for assuming that the fort was smaller-sized during the first phase.

⁵⁰⁰ Macrea, Protase, Dănilă 1967, 114–5.

The surface of the structure—the hypothetical headquarters building—rendered by the plan is c. 23 × 15 m, although not the entire construction was excavated, hence setting up an accurate plan is hazardous.

The existence of the baths in *latus sinistrum* was established due to the discovery within several rooms of water basins and *hypocaust* installations⁵⁰¹. Considering the position of the building inside the fort, I believe they represent the baths associated to the commander's quarters⁵⁰².

Troops

Although it was maintained that *cohors I Ubiorum* and *ala I Illyricorum*⁵⁰³ (?) stamps were found therein and C. Torma supposed that *cohors I Alpinorum equitata* was quartered here⁵⁰⁴, the excavations of the 50's produced stamps, discovered in relatively large numbers, belonging to *cohors I Hispanorum milliaria*⁵⁰⁵. The fort sizes are also adequate to a *cohors milliaria equitata*.

9. POROLISSUM CITERA (101.10 × 66.65 m)

The fortification on the Citera hilltop is located at c. 500 m east from the fort on Pomet summit. Evidence on the existence of an earthen phase of the fortification is provided by the fact that both lateral walls and back of the gate or south-eastern towers walls were inserted into the earthen rampart (pl. 12)⁵⁰⁶. The latest possible date for the fort erection may be year 120, when the *Palmyrenes* were attested there.

Considering the rectangular shaped of the towers, exceeding by c. 1.15–1.40 m alignment of the enclosure wall, withdrawn inwards by 2.00–2.65 m, one may argue that the stone precinct was constructed during the 2nd century AD⁵⁰⁷.

The excavations inside the fort did not identify a consistent occupation layer, yet it is clear that trenches were cut in uninhabited area, being placed over the roads inside the fort⁵⁰⁸.

M. Macrea believed the fort of Citera hilltop lasted only until Marcus Aurelius, yet conversely, N. Gudea argues that, if the fort troop was *numerus*, then it erected during the 3rd century AD, the Bel temple, hence it was still present⁵⁰⁹, which does not exclude the possibility that it might have been housed in the fort on Pomet during that period.

In return, the fact that this fort was occupied during the 3rd century AD as well is proven by the discovery of a brick stamped by *cohors III Campestris*, which was quartered at Porolissum starting with the 3rd century AD⁵¹⁰. Except that the stamps could have come from a different official building which at the time, might not have been part of the fort.

⁵⁰¹ Macrea, Protase, Dănilă 1967, 154.

⁵⁰² For baths, attached to *praetoria* starting by mid 2nd century AD see Johnson 1987, 152 sqq.

⁵⁰³ CIL III, 8074, 6 și 25b; CIL III, p. 1375 and Wagner 1938, 195–6. See also Protase 1962.

⁵⁰⁴ Torma 1880, 129–30.

⁵⁰⁵ Macrea, Protase, Dănilă 1967, 119; Gudea 1975, 382–3, fig. 1/3, 2/1–3. For the troop brief history, see Petolescu 2002, 111–2, with references.

⁵⁰⁶ Gudea 1989, 83–93.

⁵⁰⁷ To support such dating, I mention the discovery in the area of the eastern tower of a coin issued under Marcus Aurelius. N. Gudea claims that, according to available analogies (Lander 1984, 49–67, 67–91), the stone fort may be dated between AD 138–150, see Gudea 1989, 92. The same author argues that the mentioned coin might date the fort during Antoninus Pius.

⁵⁰⁸ See Macrea, Protase, Rusu 1961, Fig. 12.

⁵⁰⁹ Gudea 1989, 92–3.

⁵¹⁰ Gudea 1989, 93.

Troops

The shape and sizes of the fort on Citera frame it within the forts specific to irregular troops, namely those of *numeri*. The existence of a second fort at Porolissum additionally confirms that an irregular troop was camped in the fort on Citera.

Therefore, the fort quartered *numerus Palmyrenorum* only, comprising an effective of a few hundreds individuals⁵¹¹.

Archaeological evidence substantiating the presence of Eastern soldiers within the fort consists in the discovery in one of gate *praetoria* towers, among other, of a three facet cut arrowhead (*drei-flügelige Pfeilspitze*)⁵¹², characteristic to such peoples⁵¹³.

THE ANNEX

South-east of the fort, on the southern, rather steep slope of Citera hilltop, a fortification with earthen rampart was identified. Its north-west side was partially common with the south-east fort side.

M. Rusu describes it as an earthen fortification shaped as an irregular rectangle sized c. 190.00 × 190.00 m⁵¹⁴. The rampart was cut in only one place (trench named S V, 5.00 × 1.00 m) and led to the observation of an inward dent (ditch) similar to that in trench S 1 dug over the enclosure of the Citera, thus suggesting that the two enclosures were contemporaneous. Moreover, the rampart was organically connected to the south-west corner of the fort, yet confirmation of such connection is, in our opinion, problematic. These ‘organic’ connections may be visible with ditches and quite difficult to notice in the case of the ramparts.

The earthen precinct was considered either to have stationed a troop or to represent a training camp⁵¹⁵. The enclosure form leads us to conclude it could not have accommodated a regular troop although the very large space surrounded seems to indicate that, in fact, the fort on the plateau was in fact an annex. Additionally, the existence of a sloping training or parade fort, so close to the fort is hard to appreciate⁵¹⁶. Unfortunately, even where several forts provided with such annexes are known, their interpretation is still controversial⁵¹⁷.

10. POROLISSUM (Pomet)

At Porolissum (pl. 11), near today’s Moigrad, the Pomet summit incorporating the fortification is surrounded by Pomăt valley to the south-east and south-west, the Citera stream to the east and south-east, the Iertaşul Pipaşilor to the east and north-east and by Comoară-Ferice hilltops. The fort is set on Pomet peak, a plateau of no horizontal surface exhibiting a very high, 502 m, point (‘Bisericuţa’) in the east and a very steep slope towards south-east and north-east and rather sudden to the other directions. Thus, *porta decumana* is

⁵¹¹ See Marcu 2009, *passim*.

⁵¹² Gudea 1989, 92.

⁵¹³ For these arrowheads, see Zanier 1988, with references.

⁵¹⁴ Information given by M. Rusu in relation to this precinct is rendered in Gudea 1989, 93.

⁵¹⁵ See Gudea 1989, 95.

⁵¹⁶ In general, training fields appear in association with troops which also include cavalry, Davies 1989, 95–123; Hyland 1993, 19–20; Bidwell, Snape, Croom 1999, 33–4. The prerequisite is that such field were flat, see Arrian 34.1.

⁵¹⁷ See the case of the forts on the Antonine Wall, in Bailey 1994. They emerged where no settlements existed nearby, being considered a sort of household annexes where workshops, baths, etc. also of military type, could have been located.

not visible from the gate *praetoria* area, the level difference from *porta praetoria* to the headquarters building being relatively small, yet higher in the central part from *porta decumana*. This plateau is at approximately 1.00 km from the north-west gate for access into the city and at c. 4.50 km from the defence rampart of the settlements from Porolissum. The somewhat unusual position of the fort was determined only by strategic reasons. The entire fortified area around the settlements from Porolissum and a much extended *limes* sector blocking entry from the Pannonian field were visible from this summit.

Archaeological excavations of 1939–1959 targeted especially the enclosure area, especially the fort gates and in 1943, partially the headquarters building⁵¹⁸. The enclosure of the fort at Porolissum was established two construction phases, one of earthen rampart sized 225.00 × 295.00 m and one of stone, of similar sizes of c. 225.00 × 300.00 m (pl. 11).

The particular moment of the fortification on Pomet construction is debated. Although the majority of researchers, especially the excavators, date it during the first years after the conquest, there are several arguments for the extension, even by little, of that moment. The main case consists in the discovery in certain enclosure areas under the fort *agger*, of several traces of Roman occupation and even prints of demolished walls at the moment of the earthen rampart erection⁵¹⁹. Such traces of early occupation were also explained as the smaller-sized fort during a first phase, limited to only *praetentura dextra* of the subsequent enlarged fort⁵²⁰.

E. Tóth supposed the existence of an early phase of the stone enclosure due to the initial stone construction of certain rectangular gates towers, prior to those exhibiting a circular projection⁵²¹. No different was observed following former excavations carried out by A. Radnóti and subsequently by M. Macrea and his team, when possible several occupation phases of the towers were taken into account⁵²². On the contrary, N. Gudea maintains that the gate towers were erected by the beginning of the 3rd century AD, simultaneously with the enclosure wall⁵²³.

Praetentura has an approximate depth of 110.00 m, *latus* of c. 30.00–40.00 m and *retentura* of 150,00–160,00 m. Thus, *praetentura* occupies a third (c. 36.50%) of the fortification total surface, while *retentura* only half (51.50%). The rest, little over 10%, is occupied by *latus*. Yet, due to the rather steep slope, it is unlikely that *retentura* had been entirely occupied by buildings.

Via principalis seems to be flanked, as in the case of Buciumi, by a portico, which in front of the headquarters building, might have been the *basilica exercitatoria*⁵²⁴.

Principia

The main axis of the building (fig. 20) does not correspond to the *porta praetoria*—*porta decumana* axis, since three rooms were set in the back side, west of *aedes*, while east of

⁵¹⁸ For the history of research and location of the archaeological trenches, see briefly Gudea 1989, 64–6.

⁵¹⁹ See Macrea, Protase, Rusu 1961, 373.

⁵²⁰ After Matei 1997, *passim*.

⁵²¹ The author relies both on archaeological observations as well as the construction inscription dated during Antoninus Pius, Tóth 1978, 8–12.

⁵²² For previous reports, see Gudea 1989, 57 sqq.

⁵²³ Gudea 1989, 81.

⁵²⁴ For similar situations, see Johnson 1987, 140 sqq; Dixon, Southern 1992, 220–3; Taylor 2000, 29.

aedes only two partitions were noticed. The western adjacent room was probably attached subsequently, alike another connected compartment located by the western end of the basilica also outside the alignment of the building western wall.

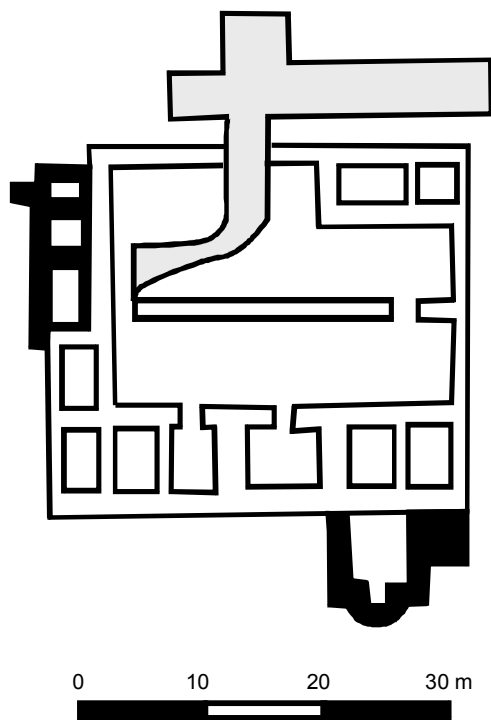


Fig. 20

Principia was sized 29.00 × 30.00 m, engaging only c. 1.30% of the fort total surface especially due to the very large dimensions of the fortification.

The first courtyard was sized 30.00 × 15.00 m (450 m²) lying on 51% of the building surface. However, the courtyard pavement did not reach the flanking walls of the structure, hence rooms bordering it most likely existed. In front, some of the rooms were unearthed in the building north-east part. As such, the courtyard would have been 30.00 × 9.50 m, 285 m² in surface and of 32.75% proportion.

Access to *basilica* was made by two entrances of 2.20 m span. Six pole bases were found between them. A statue base of 2.50 × 3.50 m was identified in the north-east corner of the basilica. A side aisle facing the courtyard could be possible at Porolissum as a wall, deemed as *stylobat* was found towards the courtyard, while a

parallel row of column bases were discovered towards the *basilica*⁵²⁵.

In the back, six *rooms* were unearthed and all were paved by *opus signinum*. The *aedes* erected in good quality walls was located on the main entrance axis. Two statue bases sized 4.75 × 3.60 m, respectively 3.75 × 3.00 m were also identified flanking the entrance into the *aedes*.

The headquarters building was established a minimum of seven construction and repair phases, differentiated upon the construction technique and the mortar colour and quality⁵²⁶.

The first phase is represented by a yellow strip (yellow clay mixed with lime) noticed in the south-east side of the building. This print also appears along its back wall. The context had equivalence also in the north-west part, identified as a mortar and crushed sandstone layer, probably the result of elevation elements destruction⁵²⁷.

The timber or most likely 'mudbrick' construction comprises a courtyard flanked by a porticus.

The south-east limit corresponds to that of the subsequent phases, while the north-west limit extended over the wall of later stages. Although information is incomplete, A. Landes and N. Gudea frame the building in R. Fellmann's type I⁵²⁸, even though headquarters buildings consisting only of an inner courtyard and rooms in the back are rather rare (see *infra*).

⁵²⁵ Landes, Gudea 1983, 170, n. 24, attempt to prove that the wall was not contemporary with the pillars, as the distance in-between them was too small (equal to the width of a human). It is true that, within Britain forts, the depth of porticoes in this area is of c. 2.30–3.20 m, after Taylor 2000, 36.

⁵²⁶ Stoicovici, Gudea 1983, 185–194.

⁵²⁷ Landes, Gudea 1983, 168.

⁵²⁸ Landes, Gudea 1983, 168.

During the second phase of the building the land is leveled and in certain areas heightened by over 1.00 m. At this point, the future stone building framework is erected. The basilica and courtyard would be separated by pilasters or columns. The construction belongs to R. Fellmann's type III, pertaining to Hadrian's period according the authors chronology⁵²⁹.

During the third phase, the courtyard was paved with large stone slabs and a brick-made channel was added around. The construction dates by mid 2nd century AD. Time differentiation between the second and third phases cannot be great as no other occupation layer emerged between the pavement layers of the courtyard. Or, we could not expect a proper occupation layer in a courtyard. Concerning the entrance, E. Tóth supposed that the *quadriga* statue of Caracalla might have been placed in this area, as the majority of fragments come from here⁵³⁰. Rooms paved by *opus signinum* and provided with heating installation were identified on both sides of the entrance. The courtyard pavement did not touch the building delimiting walls and rooms bordering the courtyard were supposed to have initially existed here as well⁵³¹.

K and L partitions are added to the porticus during the fourth phase, wherein tiles bearing the stamp CHIII (see *infra*) and a 'returned foot' brooch surfaced. Hence, such buildings were dated by the end of the 2nd or during the 3rd centuries AD, when the troop was stationed in the fort. Same phase was supposed for room V where stamps of L VII GF type emerged.

During the following phase, the intermediary wall replacing the pillars row from *basilica* was added⁵³². Four stone masonry bases, located by the periphery of the courtyard porticus also belong to this stage, should we take into account the similar mortar composition. Based on its monumentality, this construction phase most likely dated once with Caracalla's visit.

At a later date, by the beginning of the 3rd century, the rooms on the north-west side would be attached, by using this time a reddish mortar.

Last revetments of poor quality *opus incertum* masonry and cream-coloured mortar would take place by mid 3rd century. The S-named kiln is made in this phase as well, together with the partition of the rooms on the same side.

Five or four differently sized bases, located at unequal distances were identified by the courtyard periphery, within the side porticoes⁵³³. Not all seem to have had a constructional purpose, being most likely statue bases.

Sandstone blocks were discovered in front of the entrances to the back side⁵³⁴, used probably to support arcades. Access from the basilica could have been made only with rooms c (3.10 m span) and d (2.70 m span).

⁵²⁹ Landes, Gudea 1983, 168.

⁵³⁰ Tóth 1978, nr. 2, Taf. III.2; III.4. See also Diaconescu 2005, 454.

⁵³¹ Tóth 1978, 11. Opinion considered erroneous subsequently, after Gudea 1989, 72.

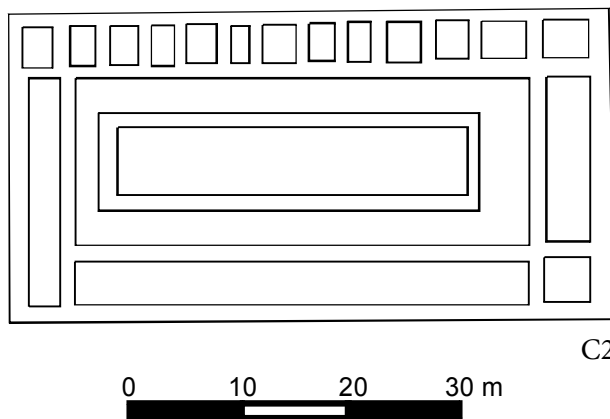
⁵³² Landes, Gudea 1983, 170, n. 24, proving that the wall was not contemporary with the pillars, alike other examples within the Empire, as the distance in-between them was too small (equal to the width of a human).

⁵³³ Landes, Gudea 1983, 165.

⁵³⁴ Regarding room sizes, they differ from Gudea 1997c, 25 to Landes, Gudea 1983, 165. We chose those provided in 1983.

Praetorium

Building C2 (fig. 21) placed in *latus dextrum* and presumed the commander's building is sized 35.00 × 57.00 m. It occupies 2.9% of the fort total surface, more than double compared to the headquarters building, thus being another special feature of the fort at Porolissum. The supposition that it was indeed the commandant's quarters is based on the fact that the plan is typical, comprising a central courtyard flanked by rooms, its location being similar to other *praetoria* from Dacia. Access was made by a portico⁵³⁵ along *via principalis*, like the case of the commander's quarters. The inner courtyard is open and surrounded by a *stylobat* which undoubtedly carried columns forming a large porticus.



C2

Fig. 21

Behind this porticus, the long sides consisted each of 12 rooms, while four rooms were placed on the short sides⁵³⁶. Yet, the plan was rendered by symmetry and only one trench was dug along the long north-east side⁵³⁷. In the rest, trenches were oriented perpendicular on other sides, hence the establishment of rooms number on the short sides for instance, is presumptuous; this is the case also for the long side opposed to the entrance. Therefore, although the situation is challenging, not

much may be said on this structure, not even if it was indeed a *praetorium*. The large number of troops stationed within the fort obviously involved an equivalent number of commanders, who evidently had to live somewhere. The very large dimensions of structure C2 may provide indication that several commanders lived in the building, yet this is extremely hard to prove. One should not forget that *praetorium* was the private house of the commander and his entire family, including the slaves. A building which has identically-sized rooms without an axial plan centered on the inner courtyard⁵³⁸ has no residential character, therefore normally it would not be a *praetorium*. Additionally, if the structure was used by two or more families, it would have been customary to identify some sort of partitioning of the entire structure⁵³⁹. Or, it is not visible either. It is true, though, that excavations were not extensive and that the building plan was restored based only on research upon trenches, usually perpendicular on the construction sides.

Further surprising is the fact that another two buildings (fig. 22) from *latus sinistrum* had similar plans to *praetoria*, one of them (building C4) being even sized alike many of such buildings⁵⁴⁰. Only two of the three structures exhibit a plan with a central courtyard flanked by rooms and a portico, characteristic to both civil houses and hospitals. The third building, adjacent to *via sagularis*, had only a central courtyard flanked by rooms.

⁵³⁵ Gudea 1997c, 25.

⁵³⁶ Gudea 1997c, 25.

⁵³⁷ See trenches plan in Gudea 1997c, Fig. 9.

⁵³⁸ See Hodgson 1996.

⁵³⁹ Alike the *praetoria* specified by A. Johnson, Johnson 1987, 160–1.

⁵⁴⁰ Gudea 1997c, 25, although associated initially with a workshop, respectively a hospital, does not exclude the possibility of their use as *praetoria*.

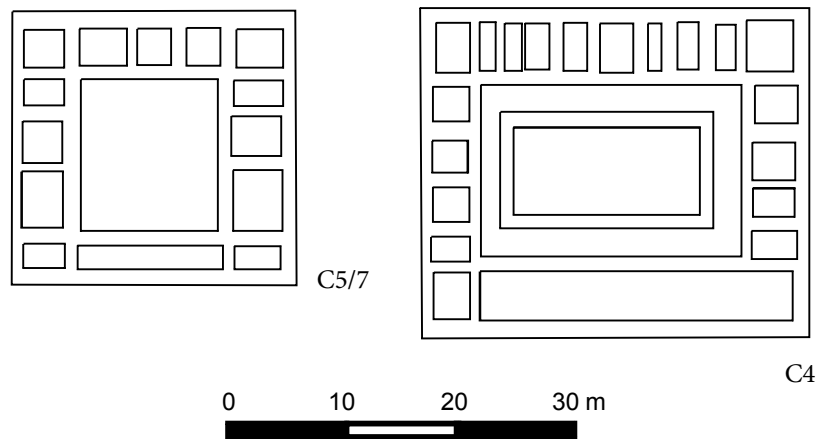


Fig. 22

Within some of the forts, another building with an inner courtyard delimited by rooms placed yet in a different part than the central area emerges and is interpreted also as *praetorium*⁵⁴¹. In exchange, in many of the forts where the association of military units is certain, no second *praetorium* is present⁵⁴².

Assignment options of these buildings from *latus sinistrum* of the fort at Porolissum regard their use as hospitals or *fabrica*⁵⁴³. Unfortunately, archaeological digs in the area were performed on small scale and only their resumption would make possible attribution to one or another building type.

Valetudinarium

It is very interesting that within building C4 tens of bone arrowheads were discovered⁵⁴⁴. Therefore, it might have been either a storehouse or a *fabrica*. However, precisely this structure resembles a hospital best. It is though peculiar that its sizes of 34.00 × 28.00 m are double compared to other hospitals. A *horreum* is located between this structure and the headquarters building and beyond it, towards *via sagularis*, the other building with a central courtyard is set. The rooms delimiting the open space are similarly sized, however we are not sure on the area occupied by each. Practically, the single noticeable thing in the plan rendered by the excavator, is that between some of the compartments placed along *via principalis*, there are few extended spaces, most likely corridors. Such hallways are specific to hospitals only. Within legionary hospitals, groups of two or three rooms were regularly separated by such corridors, the so-called ‘Koenen system’ being established following archaeological digs of the hospital from *Novaesium*⁵⁴⁵.

⁵⁴¹ In Britannia, such buildings were identified in *praetentura dextra* of the fort at Hod Hill and in *praetentura sinistra* of the fort at The Lunt, Baginton, see Johnson 1987, 160–1. The second *praetorium* from Hod Hill, larger than the one behind the headquarters building was most likely erected for *praefectus equitum*, superior in rank to the centurion commanding legionary vexillations also stationed there. The one at The Lunt, Baginton, also larger compared to that near *principia*, suggests the presence of a more numerous staff ‘necessitated here by activities of which the *gyrus* is the chief archaeological indication’, see Wilson 1974, 431.

⁵⁴² See for instance the fort at Strageath, researched 100%, Frere, Wilkes 1989. However, as it did not quarter two full strength troops we cannot be certain that two commanders were present.

⁵⁴³ Gudea 1997c, 25.

⁵⁴⁴ Gudea 1997c, 65.

⁵⁴⁵ Koenen 1904.

Obviously, without any detailed archaeological information, we may not exclude that the mentioned hallways could be in fact an optical illusion, the existence of several occupation phases of the building with the rehabilitation of the partition walls on different routing being possible.

The medical tools, i.e. surgery tools, pincers or plates for ointment preparation found at Porolissum have unknown findspot or were discovered in the *praetentura sinistra* water tank filling and *latus dextrum* pit G filling, evidently in secondary position⁵⁴⁶.

Other buildings

Building C3 (fig. 23) located at c. 4.00 m left the headquarters building was considered an underground temple⁵⁴⁷. It is sized c. 7.50 × 30 m. Since the structure was only sondaged by two parallel trenches S84 (95.50 × 1.50 m) and S85 (97 × 1.50 m), transversal to the building and at 10 m, respectively 20 m from *via principalis*, the building length is only supposed by analogy with the neighbouring headquarters⁵⁴⁸.

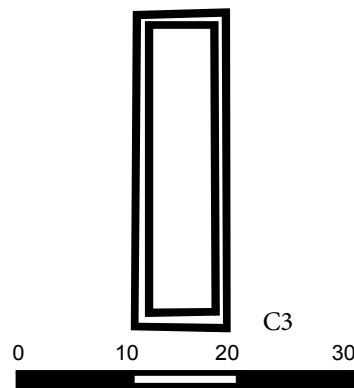


Fig. 23

The walls erected in *opus incertum* were 0.80 × 1.00 m thick, being therefore a rather solid structure. I am not sure whether compartments were not observed only due to the excavation system by trial trench, the excavators certifying that the brick floor was continuous⁵⁴⁹.

Its assignment was made following the discovery inside, of two Mithraic reliefs and several plates depicting the Danubian Knights, therefore was deemed *mithraeum*⁵⁵⁰.

Mariana Pintilie's account, following information supplied by I. Bajusz, refers to the existence of a central corridor paved with mosaic⁵⁵¹. Yet, at a later date N. Gudea, the actual author of the archaeological digs criticised the information provided by Mariana Pintilie arguing that in fact, there was no corridor, and that inside, the entire construction was paved by bricks. The main argument for nominating the building as temple consists, beside the mentioned reliefs, of the 4.00–5.00 m level difference between the construction interior compared to that of the neighbouring headquarters building and additionally, the vegetal motifs painting of the walls⁵⁵². The level difference is absolutely impressive, being extremely difficult to explain even for an underground temple. Moreover, inside, from c. 1.25–1.50 m over the floor, the walls begins to curve forming an incipient vault, whose height must have been c. 2.00–2.50 m⁵⁵³.

The single known *mithraeum* related to an auxiliary fort comes from the vicinity of the fort at Carrawborough, where the prefect of *coh. I Batavorum* dedicates three altars to Mithras⁵⁵⁴. The temple was constructed by the beginning of the 3rd century AD and represents in fact an underground cavern large enough to accommodate 10–12 individuals.

⁵⁴⁶ See Gudea 1989, 680, Pl. CXLII; CCXXV; Gudea 1997c, Fig. 38, Fig. 39.

⁵⁴⁷ Gudea et alii 1986, 122; Gudea 1997c, 70.

⁵⁴⁸ Gudea et alii 1986, 122.

⁵⁴⁹ Gudea 2002a, 620.

⁵⁵⁰ Gudea et alii 1986, 122; Gudea 1997c, 70.

⁵⁵¹ Pintilie 1999–2000, 238.

⁵⁵² Gudea 2002a, 619.

⁵⁵³ Gudea et alii 1986, 122.

⁵⁵⁴ Campbell 1994, 135.

In Dacia, the single complete *mithraeum* comes from Ulpia Traiana Sarmizegetusa, sized c. 44.23 × 12.44 m⁵⁵⁵. The temple plan consists of antenave, nave (three aisles) and *cella*. In fact, this is roughly the plan of other similar temples known in the Empire, comprising a porticus, *pronaos* and nave crossed by a central corridor⁵⁵⁶. The nave was not divided into three aisles, but benches existed on both sides of the corridor. The proper altar was set by the end opposed to the entrance, usually within an apse. In the case of the building from Porolissum, although two trial trenches were cut, no partitions were noticed⁵⁵⁷. On the other hand, the floor is sunken by approximately one meter, like the case of the temple at Frankfurt-Heddernheim⁵⁵⁸. Moreover, within the temples erected to Mithras emerge altars dedicated to other deities, yet never to the Danubian Knights⁵⁵⁹. As such, the building is not a *mithraeum*, but is difficult to assign considering the wall painting and the sunken brick-made floor.

It is clear though that, based on its features, the structure is an exception and I am not familiar with other example of the type. However, what purpose did it serve?

The construction is one of the only which, upon sizes, form and location could be deemed *horreum*, hence one may not exclude at least an initial role of granary. Subsequently, the vaulted shape of the building roof may indicate a basement or a cistern, as D. Alicu observed⁵⁶⁰.

Digs consisted of only two parallel trenches intersecting transversally the building at 10 m distance one from the other, therefore the function of this building is hard to explain. Anyhow, the existence of a cistern within the same fort makes me believe that the excavators would have noticed building C3 and cistern B10 construction technique similarity (see *infra*).

Buttresses were not identified, yet considering the trench widths of only 1.50 m⁵⁶¹ they might have existed in the upper parts. On the other hand, considering the extremely large depth of the building, supporting buttresses were not even necessary.

Obviously the function of storehouse is opposed to the sunken, instead of heightened floor, the painting and the discovery of artefacts like those identified.

Several features of the building are similar to rooms inside headquarters buildings or forums. Thus, the very large depth of the building brings immediately to our mind the single sunken and vaulted structure from a fortress or an auxiliary fort: the *aerarium*. *Aeraria* are usually placed under *aedes principiorum*, the central building in the back preserving the troop standards. On the other hand, the location of such *aeraria* was not necessarily under the *aedes* and a few cases are known when they are set under one of the rooms neighbouring the strongroom, like in the fortress at Noviomagus⁵⁶² or the auxiliary forts at Chesters or Benwell on Hadrian's Wall⁵⁶³.

It is not very clear what such 'vaults' deposited, except for, among other, the soldiers' savings (Vegetius II.20)⁵⁶⁴. Regarding fortresses, I quote the well-known case from Potaissa,

⁵⁵⁵ Rusu-Pescaru, Alicu 2000, 82.

⁵⁵⁶ Clauss 1990, 54–5, Abb. 7, 8, 10, 11.

⁵⁵⁷ Fact noticed also by D. Alicu, Alicu 2002, 233, arguing that prints of the side benches should have obviously surfaced. For additional explanations see Gudea 2002a, 620 reminding there is no central corridor and the brick pavement was continuous, the inside width being of c. 5.00–5.50 m.

⁵⁵⁸ See Clauss 1990, Abb. 6.

⁵⁵⁹ Clauss 1990, 57.

⁵⁶⁰ Alicu 2002, 233.

⁵⁶¹ Gudea et alii 1986, 122.

⁵⁶² Petrikovits 1975, 73.

⁵⁶³ Johnson 1987, 136, Abb. 89.

⁵⁶⁴ H. v. Petrikovits wonders to what extent legionary deposits were kept here, Petrikovits 1975, 73.

where under the *aedes* a vaulted rectangular compartment sized 10.50–11.80 × 5.30–5.40 m (60 m²) was found, with walls of 0.55–0.75 m and a floor sunken by c. 1.95 m from the walking level of the *aedes*, or by 1.00 m from that in the *basilica*, thus being created an inner height of c. 2.30–2.50 m⁵⁶⁵.

Within the auxiliary forts though, the dimensions of such *aeraria* are much smaller, in some of the cases deposits consisted only of a pit where a wooden chest was buried like at Vindolanda⁵⁶⁶. Nevertheless, proper rooms also existed and their floor was sunken by c. 1.50–2.00 m from the *aedes* walking level⁵⁶⁷. The average sizes of such rooms within auxiliary forts is of approximately 6.00 m²⁵⁶⁸. Dimensions of this type compartments are not directly related to the garrison troop, since in some *cohors* forts they are larger than *ala* forts⁵⁶⁹. The strongroom from South Shields, sized 16.72 m² makes exception from all. The explanation of such a ‘strongroom’ consists in the character of the fort at South Shields, comprising a very large quantity of goods or transit valuables⁵⁷⁰.

Beside troop deposits, statues or altars could also be placed there, like those dedicated to Jupiter at Murrhardt, the *Genius* figure at Kapersburg or Hercules’s depictions at Köngen⁵⁷¹.

The character of the fort at Porolissum, located militarily and economically in one of the most important areas from Dacia and the many garrison troops, suggest the existence of a larger sized *aerarium*. Even so, the structure length would be rather great compared to that at Potaissa, for instance, yet the distance between the trenches was of only 10 m, so it is possible that the building from Porolissum had similar surface to that at Potaissa.

Hindrance, quite important, impeding the assignment of the structure as *aerarium*, consists in its location, explainable since little space was available under the *aedes*⁵⁷², where, in fact, no underground room was found; in the fact that Suetonius, Vegetius and Tacitus state that money and *signa* were directly related⁵⁷³, yet there are exceptions when rooms are not placed under the *aedes*; and the fact that not being in the strongroom area, they could not have been secured by the same guards required for the protection of the standards (see *infra* on *excubitoria*)⁵⁷⁴. Last but not least, one may wonder why deepening was necessary if the structure was not in relation to the *aedes*. Explanation may reside in the fact that another superstructure of similar official function existed.

Finally, one last possibility would be that the sunken structure from Porolissum would represent a *schola*⁵⁷⁵. Three of the rooms in the back of the headquarters building from Carnuntum were interpreted as cult locations⁵⁷⁶. A statue of Hercules was found in one of the

⁵⁶⁵ Bărbulescu 1987, 159–60.

⁵⁶⁶ Johnson 1987, 134, Abb. 86.

⁵⁶⁷ See the fort at Brough-by-Bainbridge where the floor is 1.70 m deep, Johnson 1987, 137.

⁵⁶⁸ For a table comprising sizes of several ‘strongrooms’ see Bidwell, Speak 1994, Tab. 3.2.

⁵⁶⁹ After Bidwell, Speak 1994, 81.

⁵⁷⁰ Such goods circulation was not related to Severus’s campaign, Bidwell, Speak 1994, 81.

⁵⁷¹ Johnson 1987, 133. Probably not all were discovered *in situ*, they could have fallen from *aedes*.

⁵⁷² At Sarmizegetusa, where a larger sized *aerarium* was required, the situation is solved by placing two *aeraria* under *curia*, under the form of two sunken and vaulted compartments each sized 11.90 × 3.70 m, like the *aerarium* at Potaissa, Étienne, Piso, Diaconescu 2004, 147–8.

⁵⁷³ ...*a quoquam ad signa deponi*, Suetonius, *Dom.* 7; Vegetius 2.20 and ‘money was carried under the protection of flags and eagles’, Tacitus, *Ann.* 1,37.

⁵⁷⁴ H. v. Petrikovits mentions that money was stored here especially due to constant guard, Petrikovits 1975, 73.

⁵⁷⁵ See Marcu 2007b, *passim*.

⁵⁷⁶ Domaszewski 1895, 49; Stiglitz, Kandler, Jobst 1977, 634.

rooms and an altar dedicated the fort genius was discovered in the neighbouring room. The room where the genius image was identified, although provided with heating system, was sunken and its walls were painted similarly to the building from Porolissum⁵⁷⁷. Therefore, it was also interpreted as *schola*⁵⁷⁸. Or, it is possible that the building from Porolissum might have been a *schola* dedicated to a college genius, where, alike in other cases, other divinities were also revered.

Without a doubt, only archaeological research of the entire construction may prove which of the three variants applies.

Storehouses

Another construction similar to a *horreum* is that from *praetentura sinistra*, framed by the excavators in cistern category (see *infra*) (fig. 24).

Buildings B2, B3, B4 and B5 described as storehouses, were identified following a probably no wider than 1.50 m trench dug along the entire *praetentura dextra*. Buildings B2 and B3 placed by mid *praetentura* represent probably granaries since they appear to have buttresses and longitudinal walls to carry the floor. The first building is at 33.70 m from *via principalis*, being 15.60 m wide and having 1.00 m thick walls⁵⁷⁹. Inside, an intermediate 0.80 m wide wall was observed, with no groundwork. On both sides of the intermediate wall, two rows each of 0.75 m high sandstone pillars in the shape of a pyramid trunk were examined. The distance in-

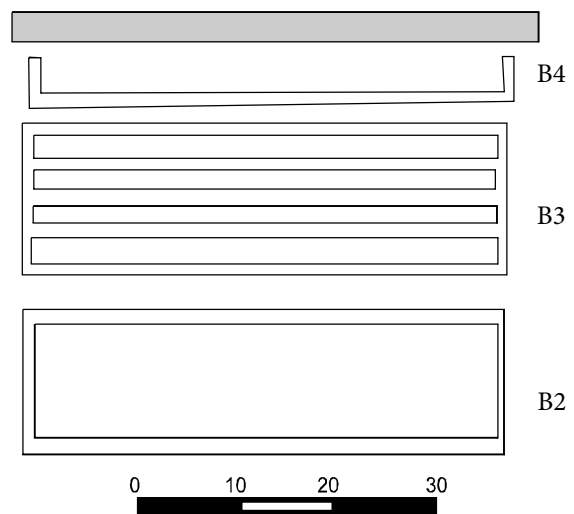


Fig. 24

between the rows was of 1.20–1.40 m. Outwards, the walls were provided with buttresses. The combined system for the floor support is rather rare, yet it is found with certain forts in Britannia. The width and length ratio of the building is quite large (3.24) and is due to the large sizes of the fort in general. The building is restored to have had buttresses on all sides, although only two were identified in digs, both set on the long sides, one facing the other.

The second *horreum* (B3) is at 53.40 m from *via principalis* and at 3.0 m from the first granary, being sized 50.00 × 15.40 m (780.00 m²). The 1.40 m thick outer walls have solid foundation. Inside, four parallel longitudinal walls of 0.70 m thickness were identified, yet without foundation, therefore they must have carried a timber floor. Between the first and the outer wall the distance was of 1.00 m, while the distance between the others was of 2.00 m⁵⁸⁰.

Horrea from Porolissum, although very large, occupy 2.24% of the fort surface, a larger, yet rather usual proportion. Should several granaries existed at some point, including here building B10, transformed into a cistern, then the granaries proportion was of 2.70%, already fairly large, yet not unusual for a border fort with many outposts depending directly on it.

⁵⁷⁷ Stiglitz, Kandler, Jobst 1977, 634.

⁵⁷⁸ Petrikovits 1975, 176, Anm. 88.

⁵⁷⁹ Gudea 1983, 124–5.

⁵⁸⁰ After Gudea 1983, 125.

***Fabrica* (?)**

As mentioned above, a building of the type could have existed in *latus sinistrum*, building C4 or C5–7, in the shape of a workshop, having a central courtyard flanked on all sides by rooms⁵⁸¹. I mentioned that building C4 plan, although rather large, resembles rather a hospital with several corridors between the room groups.

I have no information regarding building C5–7 either, yet its plan is similar to other buildings from the fort central area, having therefore several rooms equally sized placed around a central courtyard. The lack of the portico surrounding the courtyard, compared to other buildings comprising a central courtyard, may suggest a different function than residential. This is the single element indicating that the structure was a *fabrica* or a storage house.

Another construction deemed as *fabrica* is B1, located in *praetentura dextra*, near *via principalis*, proven by the discoveries inside rather than the plan, difficult to establish⁵⁸². Thus, a small hearth surrounded by numerous pits where iron slag was deposited was identified⁵⁸³.

In the intersection area of *via quintana* and *via decumana* part of building C9 was researched. The north-east and south-east walls were partially traced at 1.50 m from the porticus flanking *via decumana* and at 7.00 m from the apsidal room of the headquarters building⁵⁸⁴. The building walls are very thick, of c. 1.00 m, the construction technique being similar to that of the *principia*⁵⁸⁵. The structure does not appear to have been partitioned, yet nearby the northern corner a compartment sized c. 3.00 × 5.00 m was found. The partition walls are only 0.50 m wide, while column, monuments or even inscription fragments were used within the walls erection, thus supposing the later construction of the building⁵⁸⁶. Outside the edifice, in the *via decumana* area an inscription mentioning Volcanus was discovered among others⁵⁸⁷.

Barracks

The single constructions framed by the excavators in this category are the buildings from the left half of *praetentura sinistra* identified, alike the ‘storerooms’ from *retentura*, by a single long and narrow trench⁵⁸⁸.

The water tank

A structure whose plan is more intelligible is construction B10 (fig. 25) located in the right half of *praetentura sinistra*. Its plan is rectangular, having outside sizes of 31.50 × 9.60 m (302.40 m²), the outer wall being thicker and reinforced by buttresses⁵⁸⁹. The inner area measures 27.00 × 6.00–6.40 m, occupying a surface of c. 167.00 m². The lower part of the construction is at 2.00–2.50 m, being much deepened into the ground⁵⁹⁰. The walls thickness is of 0.80–0.90 m and they were generally made of stone bound with mortar. The buttresses

⁵⁸¹ For analogies, see Johnson 1987, 204 sqq.

⁵⁸² The building was deemed ‘foundry’, see Gudea 1997c, 26, 64–5.

⁵⁸³ The analysis of such iron slag was carried out by Stoicovici 1982, 113–9.

⁵⁸⁴ Gudea et alii 1992, 144.

⁵⁸⁵ Gudea et alii 1992, 144.

⁵⁸⁶ Gudea et alii 1992, 144.

⁵⁸⁷ Gudea et alii 1992, 145, Fig. 12.

⁵⁸⁸ Gudea 1997c, 24. For an excavation plan, see Gudea 1997c, Fig. 9.

⁵⁸⁹ Gudea et alii 1988, 150.

⁵⁹⁰ Gudea et alii 1988, 150–1.

existent on all the four sides were sized 0.70–0.80 × 0.75–0.80 m and were placed at a 2.65–2.90 m distance one from the other.

Precisely due to this waterproof wall, the construction plan although similar to grains storehouses, was deemed water tank⁵⁹¹. It was discontinued by the beginning of the 3rd century AD⁵⁹², its use as waste dump being though, unlikely.

Concerning the internal planning, I must specify that timber structures were identified under each building from *praetentura*, without being able to distinguish a coherent plan. Or, the plan of the second phase buildings is also unclear.

The erection of certain buildings from the enclosure area over *via sagularis* and partially over the earthen rampart is a feature of this fort⁵⁹³. The plan of such constructions is generally similar to those from the fort at Bologna and Buciumi, except for building B6 nearby gate *praetoria*, whose looks like a barrack probably housing the legion soldiers arrived at Porolissum during the Severan period.

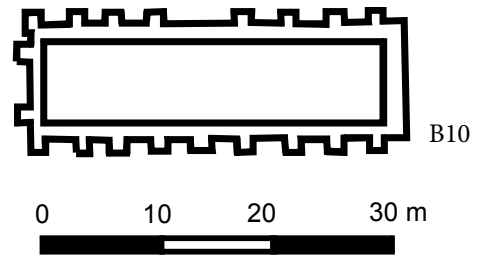


Fig. 25

Troops

Military effectives garrisoned at Porolissum, considering the sizes of the fort on Pomet, were obviously impressive⁵⁹⁴. Unfortunately, the issue of the troops' succession was not clarified insofar.

During the first phase of the fort on Pomet, the quartering of cohorts *V Lingonum*, *I Ulpia Brittonum* and *legio IIII Flavia Felix* and *legio XIII Gemina* vexillations is relatively certain⁵⁹⁵.

If during the first phase of the fort at Porolissum, sizes would have been indeed of 6.6 ha, sufficient space would remain for an additional troop. Vexillations of known troops from the neighbouring forts surely participate in several construction works of the fort on Pomet, yet it is hard to say to which extent they were stationed for longer periods, considering such forts are also of considerable sizes (for instance Bologna, Buciumi, Romita).

In my opinion, *cohors I Ituraeorum* and *cohors VI Thracum* might have been stationed as well in the fort at Porolissum, both attested in Dacia's army as early as AD 109, respectively AD 110, being probably *quingenariae* (see *Romita*). These troops or part of them are present in the fort at Romita during its first occupation phase⁵⁹⁶. Or, the first phase of the fort at Romita could be dated later than AD 106, proven by first dating elements indicating the Hadrianic period.

⁵⁹¹ Gudea 1997c, 25.

⁵⁹² Gudea 1997c, 41.

⁵⁹³ Following the discovery of the third and seventh legions stamps, the buildings were dated after 213, see Gudea 1997c, 41–2 and Piso 2000, *passim*.

⁵⁹⁴ For the issue of the troops from Porolissum, see Gudea 1989, 159–179 with bibliography; Gudea 1997c, 27–30, 35–6;

⁵⁹⁵ See Piso 2000, 210–1. In case when the first fort at Porolissum would be of smaller sizes, the troops situation would obviously change, see Matei 1997, 231–46.

⁵⁹⁶ Stamps of CO VI T type appearing at Porolissum are dated in a later period due to the fact that the type is not found in the fort at Romita, see Matei, Bajusz 1997, 92–3, 96. We believe that these stamp types found only at Porolissum is the result of the troop presence here, prior the construction of the fort at Romita.

As such, I consider that the fort sizes on Pomet would suit a *milliaria* troop (*cohors I Ulpia Brittonum*), one *quingenaria equitata* (*cohors VI Thracum*) and two *quingenariae peditatae* (*cohors: V Lingonum, I Ituraeorum*?).

The already mentioned inscription discovered at Apulum is dedicated to *C(aius) Iulius Corinthianus* from Theveste (Numidia) (CIL III 1193; IDR III/5, 542). It was supposed he was a tribune of the cohort *I Britt(anica)*, which together with one *vexillatio Dacorum* partook in AD 198–199 the Parthian war of Septimius Severus (or in AD 161–165 of Lucius Verus)⁵⁹⁷. Or, the troop seems to be identical with *coh. I Ulpia Britt(onum)*. The troop of Britons would lose or relinquish its surname *Ulpia* according to military diplomas, between AD 161 and 164. Although within the inscription, the troop is not recorded as *milliaria*, Corinthianus is a tribune and fulfils *militia secunda*, hence the troop must have been theoretically 1000 strong.

At some point during Hadrian's reign, probably once with the new province organization, the fort at Romita would be constructed and occupied by *cohors VI Thracum* and *cohors II Britannorum* ∞⁵⁹⁸. It is hard to say what happened at Porolissum at that moment; it is possible that part of the fort was left free. Probably on this occasion *cohors I Ulpia Brittonum* becomes *equitata*⁵⁹⁹.

During the second half of the 2nd and the beginning of the 3rd centuries AD at Porolissum are attested successively *vexillationes* of legions *III Gallica* and *VII Gemina*, participating in construction works, yet they did not remain here for long⁶⁰⁰.

Still by the end of the 2nd century AD or the beginning of the following, a third cohort is confirmed within the fort on Pomet, mentioned by COH III type stamps, considered to be until not so long ago, identical with *cohors III Dacorum*. This unit has definitely proven to be *cohors III Campestris*⁶⁰¹.

It is possible that troop *III Campestris* replaced the Britons cohort, as there was adequate space to accommodate both units, beside *cohors V Lingonum*. It is very odd though, that the troop of Britons, compared to other military units from Porolissum, is not recorded by tile stamps, except for two exemplars dated in an early period⁶⁰². Hence, I believe that it is possible to identify the troop with *cohors I Aurelia Brittonum milliaria Antoniniana*, which erects the stone fort enclosure from Bumbesti⁶⁰³. Moreover, it is not excluded that troop *II Britannorum* from Romita would also be stationed at Porolissum during the 3rd century AD.

⁵⁹⁷ See comment in IDR III/5, 542.

⁵⁹⁸ The inclusion of this unit among troops stationed at Porolissum was made following the discovery of COH II BRTS type stamps, see Szilágyi 1946, no. 268; Tóth 1978, 50–1; Gudea 1983a, 155. A. Szilágyi completes the reading of the stamp as *coh(ors) II Br(i)t(annorum) S(everiana)*, dating it during the 3rd century, Szilágyi 1946.

⁵⁹⁹ First evidence that the troop is *equitata* comes from a diploma dated in AD 161 granted to a former horseman of the troop, see RMD 177; Eck, Isac, Piso 1994, 577–591.

⁶⁰⁰ For the history of these legions and the reason for the transfer of some vexillations to Porolissum, see Piso 2000, 206–8, 218–20. Conversely to I. Piso's views, see Gudea 2002, arguing that vexillations from *legio III Gallica* were stationed here until Severus Alexander.

⁶⁰¹ For interpreting these stamps, the troop history and debates on the matter, see Piso 2003.

⁶⁰² Gudea 1997c, Fig. 12.

⁶⁰³ CIL III, 14485 a; IDR, II, no. 174. Anyhow, the epithet *Ulpia* disappears from the troop title (see diplomas of AD 164, RMD 63–4). In fact, within the same diplomas, the epithet *Ulpia* is not present with other troops either, see the case of the Spaniards cohort from Orheiul Bistriței. The imperial surname *Aurelia* might have been granted as honourific title, without implying the creation of cohort *I Aurelia Brittonum* under Marcus Aurelius, see Wagner 1938 108. See also Marcu 2004a, nr. 4.

The other troops attested at Porolissum represented garrisons of the neighbouring forts, which for various reasons might have been in certain moments at Porolissum⁶⁰⁴.

11. ROMÂNAȘI

The planimetry of the fort at Românași proved to be during a first phase, that of an irregular rectangle.

Inside, two occupation layers are 'obvious', while only post prints and a few walls post holes belonging to the barracks structure were identified⁶⁰⁵. Therefore, the location of the barracks inside the fort, as imagined by D. Tamba, seems ungrounded⁶⁰⁶.

The dating of the first fort phase, established in the first half of the 2nd century AD⁶⁰⁷ based on the west gate tower planimetry, identified in fact during the stone phase, that is in the second phase, is deficient.

Troops

The large number of stamps discovered at Românași prove that *cohors I Hispanorum* was garrisoned there.

The tile stamps do not prove that *coh. I Hispanorum* was *quingenaria equitata*, as N. Gudea implies⁶⁰⁸. The omission of the *milliaria* sign or mention within the diplomas recording it confirms the idea that the troop was *quingenaria*. Nonetheless, one may not exclude that the unit was of 1000 men, while the stamps from Românași of C I HISP 8 type⁶⁰⁹ seem to verify such a fact, the sign by the end being a reversed ∞ or a cut D.

However, the fort sizes plead for its occupation by a *peditata milliaria* or a *quingenaria equitata* troop.

Other units attested by stamps are *cohors VI Thracum* and *cohors II Britannorum*, which stationed at some point in the neighbouring fort at Romita. Such troops parts of them do not seem to have been garrisoned within the fort at Românași, yet the COH II BR type stamps⁶¹⁰ with a R placed 'on head' were not found at Romita, the basic fort of the troop.

12. ROMITA

In the north-west of Dacia, the impressive auxiliary fort near Romita (pl. 15) is considered to originate by the beginning of the province conquered by Trajan, no later than AD 106. In the north-west *limes* area, several forts, one close to the other are located, arranged like an arch around the most important point of the area, at Porolissum. The fortification is set on the right bank of Agrij valley in its vicinity, where the valley narrows. River Agrij flows parallel to Meseș Mountains to the north and into Someșul Mare River at Jibou. The breach

⁶⁰⁴ They are *cohors II Britannorum* and *cohors I Augusta Ituraeorum*, see Gudea 1989, 166–8; Gudea 1997c, 27.

⁶⁰⁵ Macrea, Rusu, Mitrofan 1962, 499–500; Tamba 1997, 18.

⁶⁰⁶ Tamba 1997, 25. The author of the Românași fort monograph, after stating that the troop stationed there was *quingenaria peditata* (Tamba 1997, 18) finds analogies with *equitatae* troop forts from Künzing and Birrens, thus speaking about the stabling requirement; subsequently, the author asserts that sizes given by A. Johnson to be adequate for a *peditata quingenaria* troop fort are of 1.4 ha, 'regular parameters' also in the case of the fort at Românași (Tamba 1997, 20), whose sizes, we mention, are around the value of 2.00 ha.

⁶⁰⁷ Tamba 1997, 21, when for corroborating his theory, quotes Alicu 1973, 115–6, is mistaken, the quoted author dating the enclosure by the beginning of the 3rd century AD. In fact, D. Tamba, when discussing the stone phase construction quotes D. Alicu accurately this time, see Tamba 1997, 26.

⁶⁰⁸ Gudea 1997d, 44. See also Gudea 1997e, with entire bibliography on the debate.

⁶⁰⁹ Tamba 1997, Fig. 12.

⁶¹⁰ Macrea, Rusu, Mitrofan 1962, Fig. 20.

the valley formed provides, beside the parallel one to the east (Almaş valley), easy access inside the province.

Obviously, the only 3.5 km distance from the fort at Porolissum and the fact that Agrij valley could have been surveilled by the garrison of the fort at Românaşi, also in the neighbourhood, may represent arguments for the Hadrianic origin of the fort at Romita, probably once with the organization of the new province.

Al. V. Matei and I. Bajusz, the excavators of Romita, maintain the earthen enclosure is identically sized to that of stone⁶¹¹. However, there is no dating element prior to the Hadrianic period⁶¹². Or, within all known forts, early levels are abundant in items, particularly coins dated during the 1st or the beginning of the 2nd centuries AD, as the result of the soldierly pays received especially following the Dacian wars. For this reason, it is possible that the first fort at Romita was constructed, as mentioned, under Hadrian or that it was smaller-sized, being placed inside of an enlarged fort within an area not excavated insofar and that it indeed functioned as early as under Trajan⁶¹³.

Although diggings were few, following magnetometric prospection performed by a Dutch team led by the late J. K. Haalebos, there are many elements providing information on the fort and its buildings planimetry⁶¹⁴. Sizes, due to the nature of research are only approximate, being measured upon the general plan of magnetic measurements. A virtual situation from a time, probable the latest point, in the fort existence is debated⁶¹⁵.

The sizes of the fort at Romita were measured on field, being approximately of 225 × 187 m (pl. 15)⁶¹⁶. Certainly, prints showing level differences in the field represent the last construction phase of the fort enclosure remade at certain point. The excavators identified on three of the fort sides, except for the southern side, traces of a prior earth-and-timber enclosure. As such, the existence of an early earth-and-timber fort which had approximately same sizes with the stone enclosure fortification is supposed, being the first fort at Romita, as mentioned, built as early as the beginnings of the province⁶¹⁷. Or, the fort is rather long, with a deeper *retentura* compared to *praetentura*. Therefore, one may not exclude that *retentura* was initially smaller, taking into account the fact the garrison troops were not the same constantly, from a certain point on the soldiers number being probably greater. The fact is suggested by the building planning in the fort central part.

Prints of defence ditches were noticed by digs, yet only one reddish print along the enclosure wall was observed in plan, indicating different soil consistency⁶¹⁸. The archaeological excavations identified the bottom of the first ditch at c. 9.00 m from the outer face of the enclosure wall⁶¹⁹. The ditch rendered in plan like a print of a different colour is in fact another

⁶¹¹ Matei, Bajusz 1997, 26.

⁶¹² The coins from the earliest layer of gate *praetoria* were issued under Hadrian; this was the excavators argument for settling the end of the first fort phase under Hadrian, see Matei, Bajusz 1997, 27–8. The few coins from Trajan are uncertain, except for one discovered in 1972 in the baths (Matei, Bajusz 1997, X.4.b.3, 1).

⁶¹³ See for instance the case of the fort at Gilău, în Isac 1997.

⁶¹⁴ See Franzen, Matei, Marcu 2007.

⁶¹⁵ Certain data on the early phases of the occupation at Romita are supplied in Matei, Bajusz 1997, *passim*.

⁶¹⁶ See Matei, Bajusz 1997, 30. According to the magnetometric measures taken from the outer faces of the enclosure wall, the fort has approximately equal sizes to those measured on the field, of c. 230 (north/south) × 192 (east/west) m.

⁶¹⁷ As the earliest occupation level corresponding to the initial timber phase of gate *praetoria*, it was decided that the initial fortification has similar shape with the subsequent stone wall one, after Matei, Bajusz 1997, 26, 30.

⁶¹⁸ For details referring to the defensive system of the fort at Romita, see Matei, Bajusz 1997, 20–38.

⁶¹⁹ Matei, Bajusz 1997, 32.

ditch whose bottom was by 1.00–1.15 m more to the exterior, representing the latest phase of the defensive system from Romita. The fort's stone enclosure is visible also in the plan obtained following magnetometric prospection. The excavations identified a few of the sandy whetstone worked blocks plating the enclosure wall⁶²⁰. The preserved thickness of the enclosure wall is of 1.40–1.45 m. Along this wall, several interval towers may be observed easily, one between the north-east corner and *porta principalis sinistra*, two between this gate and the south-east corner, one between *porta decumana* and the southern corners of the fortification and others, probably symmetrical yet less visible, on the western side of the fortification. Their form is usual, being rectangular and attached to the precinct wall, without projecting outwards. In exchange, the gate towers are different as plan, being still rectangular, yet outwards projected, evidence of different functionality⁶²¹. Three of the fort gates, *porta praetoria*, *portae principales sinistra* and *dextra* are double, each having two passageways, while *porta decumana* has a simple span. The corner towers have a common trapezoidal plan, their outer wall being at the same time the enclosure wall of the fort. The excavations showed the existence on the north, west and east sides of an initial earth-and-timber phase and prints of certain wooden poles were found at the gates as well.

The fortification at Romita, 160.00 m wide, measured from the interior extremities of *via sagularis*, had a tripartite planning, alike the majority of the forts from the western provinces of the Empire, with a c. 60.00 m deep *praetentura*, a *latus* of c. 55.00–60.00 m and a *retentura* of 70.00 m. The fact that the fortification at Romita had been initially shorter is suggested by the buildings from *latus* sizes. Thus, the headquarters building appears longer compared to the other stone construction with a clearly visible plan from *latus dextrum*. The unusual large length of the headquarters building may be explained as a subsequent requirement of the structure resizing⁶²², its exterior limit being, as customary, aligned to the back of the building which seems to be a *praetorium*, where initially *via quintana* would have been located, by whose ends existed and continued to function the interval towers easily visible during the last phase of the enclosure. It is normal that the distance between *via principalis* and *via quintana* would mirror the sizes or length of the buildings in the central part of the fortification which theoretically should occupy its entire depth. Cases when *via quintana* is not set on the back line of all the buildings in the central area are few, and under such circumstances, free spaces were left empty. Cases when the buildings in this part of the fort have no equal depths are similar to fortresses, where in the area behind the headquarters building other construction types of official purposes are found, like for instance a *valetudinarium*. Precisely in those auxiliary forts where same construction types emerge, in case they are located close to the fort central area, the depth of the buildings from *latus* is

⁶²⁰ Occasionally, such blocks were discovered on both faces of the wall, therefore it was probably plated with stone blocks on both sides (after Matei, Bajusz 1997, 31), yet in this case, the existence of an *agger* noticed by digs (Matei, Bajusz 1997, 35) was useless. Hence, the space or at least the superstructure between *via sagularis* and the enclosure wall might have been free, the patrol road being carried by a wooden structure whose prints were in fact discovered by digs. They may be those which the excavators observed: '...prints of the transversal frames carrying the palisade posts...', Matei, Bajusz 1997, 36.

⁶²¹ Archaeological digs at *porta principalis sinistra* and *porta praetoria* confirm the planimetry of the gate towers and also bring new interesting data on the occupation inside the towers, the discovered materials, the temporary gate blocking and their construction system, see Matei, Bajusz 1997, 38–57.

⁶²² Similar proportions and lengths are found with the forts at Rudchester (Taylor 2000, Fig. 5) or Benwell (Johnson 1987, Abb. 202), both being c. 45 m long, occupying over 5% of the forts surface and having inner courtyards lying on c. 30% of the headquarters buildings surface, in other words the largest percentages found with forts from Britannia, see Taylor 2000, Table 2, 4.

different⁶²³. However, the reason for the extension of the headquarters building may be due to *retentura*'s revetment at some point, probably subsequent the garrison change at Romita. Why did a larger headquarters building exist at that point? This may be explained if we consider which part of the headquarters building was mostly enlarged (see *infra*). Thereafter, it is possible that a smaller fort existed initially, at least *retentura* seems to have been shorter.

The delimitation point of a fort is located by the intersection between *via principalis* and *via praetoria*, where the classical authors record a *locus gromae*. As such, *groma* marks the entrance into the headquarters building, having both a distinct functional purpose of a point from where all measurements start by defining the main roads⁶²⁴ and a religious function⁶²⁵. Epigraphically, *groma* is attested at Lambaesis by one inscription located over the entrance into the *tetrapylon* marking the intersection between *viae principales* and *praetoria* and the entrance into the headquarters building⁶²⁶. Since *groma* appears in Accusative, it was supposed that it made reference, in this case, to a construction rather than the topographical instrument⁶²⁷. Such construction is of the *tetrapylon* type, erected upon the model of a Roman triumph arch, marking the intersection of *via principalis* with *via praetoria* from Lambaesis or Dura-Europos, Lauriacum, Rapidum and even Haltern⁶²⁸. Cases when this structure was identified are extremely rare, although excavations in the headquarters building area were usually consistent. Except for the fortress at Lauriacum erected in the second half of the 2nd century AD and possibly Haltern, the existence of a construction marking *locus gromae* seems a feature specific to the East.

In Dacia prints of an eventual *groma* base were discovered at Turda (Potaissa) under the volcanic tuff layer making up *via praetoria* by its intersection with *via principalis*, a limestone base of approximately triangular shape⁶²⁹. Additionally, at Sarmizegetusa the precise location of *groma* base was identified under the form of a stone base sized 67 × 60 cm⁶³⁰. Like at Lambaesis, at Sarmizegetusa *groma* was covered by a rectangular construction of 14.00 × 8.40 m⁶³¹.

⁶²³ This is the case at Housesteads or Wallsend, see plans in Crow 1995, 50–51, Fig. 30 and Hodgson 2003, Fig. 10.

⁶²⁴ *Hyginus 12: in introitu praetorii partis mediae ad viam principalem gromae locus appellatur quod <quat>tuor viae ibi congruant sive in dictatione metationis posito in eodem loco ferramento groma superponatur, ut portae castrorum in conspectu rigoris stellam efficiant.* Among under-officers are mentioned with *Vegetius 2,7: menses qui in castris ad podismum dementiuntur loca, in quibus tentoria milites figant vel hospitia in civitatibus praestant.* *Locus gromae* is also known from papyri, including with guards being placed there, see Fink 1971, no. 15, col. 2, 9 and no. 19, line 6 (dated AD 242–256). See also RE VII, 2 (1912), 1881; Dilke 1971, 66, 88, 89 or Dilke 1974, 571 mentioning that *groma* must be placed 'in the centre of the centuriation stone'.

⁶²⁵ *Posita auspicaliter groma, Hyginus, de limitibus* (Blume, Lachmann, Rudorff 1848, 170).

⁶²⁶ ... *gromam Te[r]tiis Augustani[s.....restituit], Ten[al]gino Prob[us] pra[eses] prov[inciae] Nu[midiae] dedicavit* (CIL VIII 2571), re-read by Kolbe 1974, 284.

⁶²⁷ After Kolbe 1974, 293, 295.

⁶²⁸ Fellmann 1958, 139 f., Abb. 56, 58; Rakob, Storz 1974, 266; Petrikovitz 1975, n. 78; Johnson 1987, 140, Abb. 97. For a few examples of *tetrapyla* and the reconstruction of the one from the entrance into the stone forum at Sarmizegetusa, see Étienne, Piso, Diaconescu 2004, pl. XXIX, XXX.

⁶²⁹ Bărbulescu 1987, 129.

⁶³⁰ The monument is not precisely by the intersection between *decumanus maximus* and *cardo maximus*, being slightly withdrawn towards the entrance, on the northern porticus line of the stone forum, subsequently moved southwards, after Étienne, Piso, Diaconescu 2004, 64, pl. XXXII, 2, B. 33, 36. The proper base is sized c. 2.00 m.

⁶³¹ Étienne, Piso, Diaconescu 2004, 104, 110.

Similarly, at Romita clearly visible in the magnetometric measurements plan, precisely by the intersection between *via principalis* and *via praetoria*, are four points representing most likely column bases forming a *tetrapylon*. The construction details are hard to establish, yet it probably had, alike the one at Lambaesis, several arch spans, although only four pillar bases were distinguished⁶³². Like anywhere else, a separate construction as it appears from the plan seems unlikely, being related to the headquarters building by two arches between the southern bases and the frontal wall of the building. The intermediate space between the southern limit of the *tetrapylon* and the headquarters building façade is c. 5.00 m wide, composing probably a portico along the entire building façade, difficult to distinguish from the plan. *Principia* and implicitly *groma* and *aedes* are oriented precisely on mid fort axis. The four bases of the monumental construction marking *groma* are located on *via principalis* symmetrically, precisely by mid distance between *portae principales*. The bases are set 10 m one from the other, placed on the northern and southern limits of *via principalis* in front of its intersection with *via praetoria*. The mid point of the construction is at c. 70.00 m from *porta praetoria*, at 145 m from *porta decumana* and at 85.00 m from *portae principales*. All such sizes clearly indicate this was the location where one would expect to find a *groma* monument.

Principia

Dimensions of the headquarters building were initially established based on field observations only, without archaeological diggings being carried out. Thus, according to the level differences in the fortification centre, it was considered to be c. 48 (north/south) × 34 (east/west) m⁶³³. Following magnetometric measurements, one may easily notice that this land conformation was indeed due to a large building of approximately 50–52 (north/south) × 35–37 (east/west) m in size, stretching over an impressive surface of almost 2000 m², therefore close to previous measurements. Nevertheless, due to the fort very large sizes, the headquarters building occupies 4.10% of the fort surface, common for Dacian fortifications, where the value is, like elsewhere, between 3–5% with small variations⁶³⁴. Additionally, the length/width ratio of almost 1.50 of the headquarters building is rather high, being exceeded in Dacia only by the same ratio of the headquarters buildings in the forts at Inlăceni (1.80) and Titești (1.72)⁶³⁵. At Romita the explanation could be that initially, the headquarters building, as mentioned, had been of only 40 m long on the back line of the neighbouring building from *latus dextrum* and the interval towers placed by the extremities of such a virtual line, where *via Quintana* had probably been. Therefore, the headquarters building could have been in an early stage of c. 40 (north/south) × 37 (east/west) m (1480 m²), occupying 3.5% of the fort, in case the fortification had been from the start that large⁶³⁶.

Hence, the headquarters building was initially of 1 *actus* (120 × 120 Roman feet (*pes monetalis*)) with small errors due probably to our measurements upon the magnetometric

⁶³² Entrances to *principia* from Lambaesis are sized c. 7.00 m, Rakob, Storz 1974, fig. 9, pl. 135, 2.

⁶³³ The very large dimensions of the building made the authors of the field observations suppose the existence of two similar buildings fulfilling similar functions for each garrison troop, Matei, Bajusz 1997, 30. Or, this would have been the first case known in the Roman Empire. For epigraphic evidence on a *principia* used by two troops concurrently see Johnson 1987, 139.

⁶³⁴ For certain comparative sizes of the forts in other western provinces, see Haalebos 1999, 26, n. 43; Taylor 2000, Table 2.

⁶³⁵ Usually in Dacia, the headquarters buildings are, with few variation, approximately square irrespective of the forts length/width ratio.

⁶³⁶ Since the fortification was probably occupied by two auxiliary troops from the start, the fact is not impossible.

plan, extended by another 15 m subsequently, thus resulting a length equal to the diagonal of one *actus* of 170 feet (c. 50.30 m)⁶³⁷.

Practically, the headquarters building part which probably modified its sizes most was the front courtyard. It essentially served as location for soldiers assembling or display of emperor statues or altars for *Disciplina militaris*⁶³⁸. The requirement of a larger space is reasonable as two troops were quartered here. The headquarters building was par excellence the most important administrative and religious area of the fort and, where several troops were quartered, administrative needs related it were solved by the larger sizes of this construction, the surface it occupied being in principle directly proportional to the surface occupied by the entire fortification⁶³⁹.

A few partitions were identified in the front side of the building, yet their sizes could not be distinguished from plan, having a relatively maximum depth of c. 10.00 m⁶⁴⁰. Other few compartments, approximately square with sides of approximately 6.00 m were noticed on the western side of the building. However, the divisions in the opposite side are not sufficiently clear, giving the impression they did not even exist⁶⁴¹.

The front courtyard was sized c. 28.00 (north/south) × 28.00 (east/west) m, resulting an almost 785 m² space, occupying almost 40% of the *principia*. If the open space would have been flanked by rooms on the eastern side, the courtyard would have occupied a normal surface of c. 29% of the headquarters building area. The existence of a peristyle or a colonnade flanking the courtyard is unclear, yet if compartments on the mentioned side lacked, it was necessary, alike the cases mentioned from Hod Hill or Pförring. A more pronounced anomaly may be observed in the north-western corner of the headquarters building courtyard, where a fountain was usually located⁶⁴².

The walls in the back of the headquarters building are thicker, so they are much clear in plan. The partition wall between the front courtyard and the basilica, which seems to be interrupted by its ends, is also obvious in plan. As this wall was a *stylobat*, such discontinuity seems normal, while the walls ends did not require additional extension as access from the courtyard to the basilica was made thorough there. On the other hand, if rooms bordered the courtyard, obviously the space from the *stylobat* extremities was not further used.

The great thickness of the walls in the basilica area was caused by the large dimensions of c. 12.00 × 37.00 m (444 m²) of this building part. The location of the tribunal was not

⁶³⁷ Cases of *principia* whose sizes were related to an *actus*, though this time associated to *pes Drusianus*, are at Chesters (38.99–39.19 m long) or Halton Chester (40.08–39.00 m), after Taylor 2000, 42.

⁶³⁸ According to A. von Domaszewski *principales* assembled in the front courtyard, soldiers on *via principalis*, while the tribunes and centurions in *basilica*, Domaszewski 1899, 155. More suggestive with R. Fellmann, who argues that one may not generalize and that situations are not always similar, the analysis of each headquarters building being required, Fellmann 1958, 88. Conversely, H. v. Petrikovits states that the space is not sufficient for assembling all legionaries, Petrikovits 1975, 73, n. 71.

⁶³⁹ At Vetera, the fort with two garrisoned legions, therefore double in size compared to other legionary fortifications, *principia* is almost double compared to other similar buildings, for a plan see Petrikovits 1975, Taf. 5 a, b.

⁶⁴⁰ Sizes are rather large compared to other headquarters buildings from auxiliary forts, being similar to the rooms of the large headquarters building at Potaissa (Turda), see Bărbulescu 1987, 137.

⁶⁴¹ Headquarters buildings flanked on one side by rooms were identified at Hod Hill (Johnson 1987, Abb. 182) or Pförring (Czysz et alii 1995, Abb. 195).

⁶⁴² Fountains in similar locations were identified in the forts at Hofheim (Johnson 1987, Abb. 190), Wiesbaden (Johnson 1987, Abb. 196), Eining (Czysz et alii 1995, Abb. 127) or Wallsend (Hodgson 2003, Fig. 10). See Bidwell, Speak 1994, 58 for the function of such fountains within religious rituals.

identified as it was probably timber-made or consisted of poor quality walls hard to detect by magnetometric measurements. In exchange, three statue bases or altars were clearly noticeable in the basilica, one being set, like elsewhere, in front of the *aedes* with the other two flanking the first. A base might have been placed near the south-eastern corner of the basilica⁶⁴³.

The rooms in the back are not sufficiently evident either, being probably two each on both sides of the *aedes*. They are almost 5 m deep. In comparison, the central room occupies 70.00 m² surface and is sized c. 10.00 (north/south) × 7.00 (east/west) m. The room is projected southwards by approximately 5.00 m behind the southern limit of the headquarters building, and possibly, had no apse⁶⁴⁴.

Praetorium

A large building provided with central courtyard was spotted in *latus dextrum* at c. 30.00 m distance from the eastern side of the headquarters building. The construction is aligned and perpendicular to *via principalis* and is located near *porta principalis dextra*. The outer sizes of the building are c. 42.00 (north/south) × 37.00 (east/west) m, almost of an *actus* alike the initial headquarters building, surfaced 1554 m². Therefore, it occupies 3.70% of the fort surface. According to its plan and position, the structure is obviously the commander's quarters, being a house-perystle type construction.

The inner courtyard is approximately 20.00 × 20.00 (25.00) m, being thus of 450 m² and lying on c. 30% of the building total surface. Magnetic anomalies were noticed in the north-eastern corner of the building, therefore the construction might have been enlarged or added additional compartments, like for instance the case of commander's quarters from forts on the same *limes* sector at Buciumi, Bologa, Cășeu or Gilău⁶⁴⁵.

Several compartments were also visible around the courtyard. By mid side opposite to the entrance, a larger division of c. 10.00 × 8.00 m was observed and its northern side was not set on the separation line of the back rooms, being slightly projected towards the courtyard. The room is similarly sized to an *aedes* from *principia* except that its projection is reversed, towards the building interior. This compartmenting might have been a *triclinium*, feature of Roman Mediterranean type houses and, with few exceptions, not of headquarters buildings from auxiliary forts⁶⁴⁶.

West of this room, three approximately equally sized compartments are visible. Symetrically, it is possible that east of the *triclinium* other three compartments existed. Moreover, divisions seem to have existed on all four sides around the courtyard. Thus, the structure has all characteristics of a *praetorium*.

The existence in *praetentura sinistra* of another similarly sized building, slightly different in plan though, is striking. The construction is close to *porta principalis sinistra*, aligned to *via principalis*, at 40.00 m distance from *via praetoria* and 30.00 m from *via sagularis* in the northern side of the fort. It also comprises an inner courtyard, yet it is much

⁶⁴³ Such statue bases must have been found, alike in *fora*, constantly within forts, the four bases all approximately in front of the *aedes* in the fort at Wiesbaden being suggestive, see for plan Johnson 1987, Abb. 196.

⁶⁴⁴ Similarly, the case of the central room at Balmuldy, Johnson 1987, Abb. 206.

⁶⁴⁵ Isac, Hügel, Andreica 1994, *passim*, Abb. 5, 6, 7, 22, 25; Isac 2003, 148, Fig. 13b.

⁶⁴⁶ For comparisons with Mediterranean type houses and the commander's building from South Shields, see briefly Hodgson 1996, 143–149, Fig. 12.9, 12.10, 12.11. In fact, the *triclinium* sizes (of 10 × 6.60 m) from the commander's quarters at South Shields are similar to those at Romita.

larger. The courtyard is surrounded on all four sides by large compartments, probably divided into several smaller spaces, however they are not visible in plan. The rooms' depth is approximately 5.00 m, yet the single c. 3.00 m wide clear division, may be distinguished by mid southern side of the building, in front of *via principalis*, evidently marking the entrance. The total sizes of the construction are c. 4000 (east/west) × 37.00 (north/south) m, straching over a surface of 1480 m² and 3.5% of the fort. Sizes are similar to those of the building from *latus dextrum* and the headquarters building, yet compared to the building deemed *praetorium*, its courtyard is 600 m² surfaced, being c. 30.00 (east/west) × 20.00 (north/south) m, occupying almost 40% of the building total surface.

Magnetic anomalies were detected in the south-western corner of the courtyard, as a water tank or cistern might have been placed there, close to the entrance, alike the construction with central courtyard from the *praetentura* of the fort at South Shields⁶⁴⁷.

Where did these two buildings belong? Since a *triclinium* probably existed in the building from *latus*, I suppose it was most likely the residence of one of the commanders of the two garrison troops in the fort at Romita.

The building from *praetentura*, could have been, upon its plan, a *praetorium*, *mansio* or accomodation for transit officials, *fabrica*, *valetudinarium* or a store house⁶⁴⁸. All these building types had susceptibly rectangular plan with rooms grouped around a central courtyard. Obviously, the definite framing of the building is possible only upon detailed archeological research, yet its large sizes indicate a residence, as we shall see. Since the building plan visible following measurements does not clearly establish the structure function, we shall not discuss here all assignment options. Summarizing, I aim to understand whether a second *praetorium* could exist within a fort and the reason for which two large residences existed here.

Within certain fortifications, another building with inner courtyard surrounded by rooms emerges, yet positioned differently than the centre, interpreted also as *praetorium*. In Britannia, such buildings were identified in *praetentura dextra* of the fort at Hod Hill and in *praetentura sinistra* of that at The Lunt, Baginton⁶⁴⁹. The second *praetorium* from Hod Hill, larger than the one behing the headquarters building, was probably constructed for the *praefectus equitum*, superior in rank to the centurion commanding legionary vexillations also stationed there⁶⁵⁰. The one at The Lunt, Baginton, also larger than the one near the headquarters building, suggests the presence of more numerous staff 'necessitated here by activities of which the gyirus is the chief archaeological indication'⁶⁵¹. Another analogy for the existence of two *praetoria* is that at Caernarfon (*Segontium*), one being in *latus* and the other in one of the fort corners, assigned to an official responsible for ore mining⁶⁵².

At Rottweil, probably a fort with several garrison troops, two buildings with central courtyard, recognized as possible *praetoria* were found on both sides of the headquarters

⁶⁴⁷ Hodgson 1996, 135, 137, Fig. 12.3.

⁶⁴⁸ Briefly for each building type, see Petrikovits 1975, Bild 20, 23; Johnson 1987, *passim*; Hodgson 2003, 139–140.

⁶⁴⁹ Johnson 1987, 160, Abb. 182, 187.

⁶⁵⁰ Johnson 1987, 160.

⁶⁵¹ Wilson 1974, 431.

⁶⁵² See Hodgson 1996, 143. The existence of two *praetoria* was discussed for the fort at South Shields, one being clearly located in *praetentura* (Hodgson 1996) and the other supposedly in normal position in *latus* (Bidwell, Speak 1994, 39–40), yet the existence of the later was not verified, see Hodgson 1996, 143.

building⁶⁵³. Additionally, east of the headquarters building from Straubing, aerial photographs indicated two buildings with central courtyard surrounded by rooms⁶⁵⁴.

Generally, we are not certain on the situation of the forts where two troops are recorded, like for instance the fort at Strageath⁶⁵⁵. Were there two commanders or only one? Theoretically, two commanders should have been and hence, two *praetoria*, being hard to believe they were accommodated within the same building. However, it is apparent that only one *praetorium* existed in the fully researched fort at Strageath⁶⁵⁶. As such, due to peculiarities, each fort should be analysed individually and no generality should be argued.

It is rather obvious that the highest rank commander was theoretically the supreme authority within a fort quartering several auxiliary troops. Yet, sources, as far as we know, do not expressly mention the existence of one or several *praetoria*. Occasionally, preservation of accommodation for each officer and implicitly for commanders is certain⁶⁵⁷, especially since each commander was accompanied by his entire family⁶⁵⁸.

As such, the structure from *praetentura sinistra* at Romita could have been a residence, yet different functionalities ones are not excluded since relatively large buildings with central courtyard proved to be, in the case of the fortifications at Oberstimm or Wiesbaden for instance, based on the discoveries inside, *fabricae*, especially since large water tanks were identified in the courtyards of both buildings⁶⁵⁹, alike they seem to be in the courtyard of the construction from *praetentura sinistra* at Romita. Additionally, the structure might not be a *praetorium* due to the rather regular plan of the compartments around the courtyard, rare in the case of a *praetorium*, especially due to numerous additions and different functions of various rooms.

The reason for which the second *praetorium* from Romita could have been placed in *praetentura* may be the space lack in the central area, the house-perystle being placed in *latus dextrum* while two *horrea* were probably set in *latus sinistrum* (see *infra*). This internal planning could be the consequence of the fort division into two longitudinal halves between two troops. Since one of the troops was smaller, it could have occupied the western half of the fort, here being also placed the necessary granaries for the entire effective since enough space remained free here.

Horrea

Two narrow and elongated buildings, perpendicular on *via principalis* seem to have existed in *latus sinistrum*. Their length might have been similar to that of the headquarters building, yet the width is hard to establish, probably not being wider than 10.00 m. Even though buttresses were not obvious, these two buildings could have been granaries according to their plan and position.

⁶⁵³ Plank 1975, 24–98.

⁶⁵⁴ Czysz et alii 1995, 519–520.

⁶⁵⁵ Nevertheless, the fort sizes are rather small, and for this reason probably only parts of two troops and not their entire effectives were stationed there, see Frere, Wilkes 1989, 135.

⁶⁵⁶ See Frere, Wilkes 1989, *passim*.

⁶⁵⁷ *Polybios* mentions that, although several legions were camped in a fort, each officer had its own precisely allotted place (*Polybios* VI, 27–28). It is true though, that it further mentions that consuls' tents must be close to other official buildings in the central part of the fort (*Polybios* VI, 32).

⁶⁵⁸ Attestation from the Vindolanda tablets suffice (Bowman, Thomas 1994, 29, 30), confirmed by archeological discoveries from the commander's quarters of the same fort for instance, after Birley, Blake, Birley 1998, *passim*.

⁶⁵⁹ Johnson 1987, 160–161, Abb. 180, 196.

Hence, the two structures sized 50.00 m, located at 15.00 m distance from the headquarters building, with 10.00 m intermediary space could have been both *horrea*. The occupied space was undoubtedly large, and so was the length/width ratio, usually of 1:2 or 1:3. The surface they occupy within the fort is around 4%, a relatively large percentage compared to other forts where such granaries stretch on around 1.5–3.50%⁶⁶⁰.

Inervallum area

A building of c. 32.00 (east/west) × 7.00 (north/south) m, surfaced 224 m² was visible in plan along the northern side of the fort close to the enclosure, in front of *praetentura dextra*. In case its width touches the enclosure wall, a double surface of c. 480 m² would result. The purpose of this rectangularly planned building is hard to establish and it might have fulfilled numerous functions that future archaeological research has to clarify. The building might have been a residence, a stable, store house, *fabrica* or even utilitarian purpose.

Barracks

Barracks prints were identified in 1990 only in the profile of an artificial channel, named S1, and no systematic digs ensued. The placement of the barracks from *retentura* is rather clear for the archeologists drafting one of the channel profiles⁶⁶¹. Since the small valley, whose bank was reinforced, runs east-west, thus sectioning the *retentura* width, the identification of the barracks usually placed *per scamna* (in this case, parallel to the valley) is very difficult. Therefore, the location of the barracks and their assignment to various troops stationed at Romita may be ineffectual at this stage⁶⁶².

A few narrow and extended constructions, lying on the entire width between *intervallum* and *via decumana* may be observed in *retentura sinistra*. Therefore, archeologists' observations following the profile examination of the mentioned valley, may be valid, the buildings in this area being certainly oriented *per scamna*. Thus, they might have been of over 50.00 m, very large sizes for barracks, yet numerous compartments of c. 4.00 m wide actually suggest barracks. In this case, structures of c. 55.00 × 10.00 (?) m would result, therefore of 550.00 m² surfaces. Or, barracks sizes vary around 325 m² with 125–550 m² limits⁶⁶³. Hence, especially due to the rather large space a barrack occupied, *contubernia* are also large, similar to those found with fortresses.

If such structures are barracks, even tough of timber, they were probably erected on sill walls, this being the reason for which the plan renders at least their orientation and length. Constructions of probably comparable size may also be seen in *praetentura dextra*, yet their definite number cannot be specified. Scenarios regarding the soldiers number in the fort related to its sizes are also inoperative without the appreciation of technical details and the plan of all buildings inside, as the soldiers number within a troop depends on many unknown factors.

Troops

The fort at Romita was probably erected by *coh. VI Thracum* and *coh. I Ituraeorum*⁶⁶⁴. If the second troop is *milliaria*, then its replacement sometime during the 2nd century AD by

⁶⁶⁰ Gentry 1976, Table 1, Fig. 5. For several detailed sizes of forts from Britannia, see Taylor 2000, Tab. 5.

⁶⁶¹ Matei, Bajusz 1997, 60–1.

⁶⁶² The winding route of the valley makes this interpretation even more difficult, see Matei, Bajusz 1997, 62.

⁶⁶³ After Davison 1989, 8.

⁶⁶⁴ Stratigraphic circumstances of discovery of stamps bearing the acronym of these troops, made the excavators believe the fort construction by the two cohorts, see Matei, Bajusz 1997, 95.

coh. II Britannorum ∞ is normal, although the last was probably *equitata*⁶⁶⁵. E.Tóth attempted to prove that the *Ituraei* troop was *milliaria*, arguing that the mirror-figured ‘S’, occasionally with extended extremities, appearing by the stamp ends is in fact the short form for *milliaria*, respectively a reversed ∞⁶⁶⁶. The single problem is that some inscriptions mention a few troop *praefecti*, therefore either the troop becomes *quingenaria* from *milliaria* at certain point, or, alike other cases, *praefecti* lead troops of larger effectives than expected⁶⁶⁷.

Most likely, *coh. II Britannorum* was displaced at Romita in the first half of the 2nd century AD replacing *coh. I Ituraeorum*. The fact it coexisted with *coh. VI Thracum* is proven by numerous tile stamps, certain discovered within same archaeological contexts. It is possible that once with the seventh decade of the 2nd century AD, the garrison of the fort at Romita was *coh. II Britannorum* and *coh. I Batavorum* both *milliariae* troops, the last replacing the Thracian cohort.

Coh. II Britannorum

First attestation of the troop is abbreviation of troop name on tile stamps from Germania Inferior at Xanten⁶⁶⁸ and Vechten⁶⁶⁹, and more recently by its troop record within the diplomas from AD 81 and 83/84 (ZPE 143, no. 1)⁶⁷⁰. Once with the Dacian wars, the unit is displaced to Moesia Superior, as recorded by the diploma from AD 100 (CIL XVI 46). Between AD 109 and 164, the troop appears to form part of Dacia army and subsequently of Dacia Porolissensis⁶⁷¹.

The stamp proving *coh. II Britannorum* in the fort at Ilișua differs from those at Romita by figuring the abbreviation for *milliaria*. In the fort and *vicus* from Cășeu, a similar and two absolutely identical stamps with the one published from Ilișua were uncovered within relatively clear stratigraphic contexts: *praetorium* first occupation level dated under Trajan—Hadrian, respectively the first phase of the *vicus* in the fort vicinity⁶⁷². Thus it was concluded that the troop constructed the forts at Cășeu and Ilișua during the first phase (Trajan), without specification of order or concurrency⁶⁷³. The ‘higher’ frequency of *coh. II Britannorum*

⁶⁶⁵ *Coh. I Ituraeorum* is recorded only by the diplomas from AD 109 (AE 1990, 860 = RMD 148) and 110 (CIL XVI, 163 = IDR I 3), therefore it might have left the province during the first half of the 2nd century AD. Stamps attesting it at Vechten, in Germania Inferior, display letter *E* by the end, probably an abbreviation for *equitata* (CIL XIII, 12425), see Alföldy 1968, 8. Certain scholars doubt that horsemen were present within this troop, see Gudea 1983, 156. Although the troop is attested but by stamps, the ‘*ex silentio*’ argument concerning the term *equitata*, is not operable.

⁶⁶⁶ Tóth 1978, 50–51. Similar opinion in Țentea 2004, 809.

⁶⁶⁷ Other cases of *praefecti* commanding *milliariae* troops are also known, like *I Tungrorum* (CIL VII, 638–42) and *II Tungrorum* (CIL III, 11918, CIL VIII, 5532), see RE XXII, 2, col. 1278–1283.

⁶⁶⁸ CIL XIII, 12424.

⁶⁶⁹ CIL XIII, 12425; Alföldy 1968, 8.

⁶⁷⁰ *Tabella I* reads [---]RITTON[---], identified with *coh. II Brittonum milliaria*, see Eck, Pangerl 2003, 205–11.

⁶⁷¹ The military diplomas are dated in AD 109 (AE 1990, 860); 110 (CIL XVI 163 = IDR I 3); 133 (IDR I 11 = RMD 35); 154 (IDR I 17 = RMD 47) and 164 (IDR I 18 = RMD 64; CIL XVI 185 = IDR I 19 and IDR I 20 = RMD 63).

⁶⁷² Isac 1987; Isac, Marcu 1999, 587. The third fragmentary stamp from Cășeu, displaying the acronym COH II BR...R is interesting upon findspot and type. The stamped tile was discovered in *porta principalis dextra* of the fort being probably reused, as a *c* lacked probably before the last *R*, short from *c(ivium) R(omanorum)*, see Isac, Marcu 1999, 587. Or, within the military diplomas from AD 109 (AE 1990, 860) and 110 (CIL XVI 163 = IDR I 3) the unit was *c(ivium) R(omanorum)*.

⁶⁷³ Isac 1987, 179–180.

tile stamps in the fort at Cășeu could represent indication on the fort garrison during the first occupation phase⁶⁷⁴. Garrison troops are not certain under Traian for either of the two forts. In this period, the surface of the fortification from Cășeu is by almost one hectare larger than the fort at Ilișua⁶⁷⁵. Nevertheless, *coh. II Britannorum* could have been stationed in any of them and participate, with materials or staff in the construction of the neighbouring fort. Considering the relatively large sizes of the fortification, one may not exclude that the fort at Cășeu might have been quartered *coh. I Britannica milliaria equitata* from the start.

N. Gudea maintains the unit was the garrison of the fort at Romita, where it stationed beside *coh. VI Thracum*, which was *quingenaria*⁶⁷⁶. The author orders *coh. II Brittanorum* stamps discovered in this fort into 11 types with various variants, without being able to analyse them stratigraphically⁶⁷⁷.

Indeed, following the large number of the tile stamps discovered at Romita, it is very probable that the troop was stationed here subsequently. Latest (?) known record on the troop, stamps mentioning its imperial surname *Antoniniana* also come from here⁶⁷⁸. The fortification at Romita has an impressive, 4.20 ha, surface for an auxiliary fort, having accordingly two garrison troops⁶⁷⁹. Since another troop *II Britannorum* is not evidenced within inscriptions or military diplomas, the existence of two troops with the same name is unlikely⁶⁸⁰. In addition, I would like to remind that abbreviation of troop names on tile stamps usually misses out the *milliaria* sign, aslike the case of Romita stamps, its inclusion being rather an exception than a rule⁶⁸¹.

The authors of more recent excavations in the fort at Romita are tempted to order the various tile stamps chronologically, classifying them especially upon letter shape⁶⁸². Such a chronological classification is risky, as it ignores the stratigraphic context. Stamped tiles usually come from of one of the fort gates debris. Even the excavators maintain the the stamp type considered to be 'the earliest' was discovered both at greater depths and upper levels⁶⁸³. Therefore, considering the tiles constant reuse, they are hard to frame chronologically. Furthermore, different acronyms of the troop's name do not necessarily signal a chronological gap, as they might well be contemporary (see *infra*).

The four tiles stamped by cohort *II Britannorum* from Românași, could have reached here as construction material. Nonetheless, COH II BR type stamps⁶⁸⁴, with the R placed on 'head' were not found at Romita or Porolissum. Or, even *ala Siliana* stamp types from Viștea, in the vicinity of its garrison fort at Gilău, are different types from those in the mentioned fort and do not prove the presence of the unit here with certainty⁶⁸⁵.

⁶⁷⁴ Isac 1987, 180.

⁶⁷⁵ Protase, Gaiu, Marinescu 1997, 45–52. The troop from Britannia seems to have been *equitata* in Germania Inferior, its name being abbreviated *coh(ors) II Br(ittonum) m(illiaria) e(quitata)* in the stamps from Vechten, yet there is not further proof it comprised cavalry detachments.

⁶⁷⁶ Gudea 1983, 156; Gudea 1984, 222–3.

⁶⁷⁷ Gudea 1983, 155, pl. 1.

⁶⁷⁸ The majority of stamps of the type emerged in later levels, see Matei, Bajusz 1997, 90–1, Fig. 9.

⁶⁷⁹ Matei, Bajusz 1997, 67 f.

⁶⁸⁰ *Contra* Matei, Bajusz 1997, 97.

⁶⁸¹ We enumerate only a few *milliariae* troops, although the tile stamps do not mirror the fact: *coh. I Britannica*, *coh. III Campestris*, *coh. I Sagittariorum*, etc.

⁶⁸² Matei, Bajusz 1997, 88–89.

⁶⁸³ Matei, Bajusz 1997, 89.

⁶⁸⁴ Macrea, Rusu, Mitrofan 1962, Fig. 20.

⁶⁸⁵ See Marcu 2004, 572.

It is curious that inscriptions or other data recording this unit (composition, movements, etc.) are missing insofar, yet excavations in the fort at Romita targeted one of the gates and less the fort's central part, where one would expect to find inscriptions as proven by the three or four bases from *basilica* observed in the magnetometric measurements plan. Many of the bricks or tile stamps come from the baths near the fort.

If the COH II BRTS type (retrograde S) stamps discovered only at Porolissum may be completed as *coh. II Britannorum Severiana*, then it could mean that the troop was displaced there, but more likely, that it sends tile material⁶⁸⁶.

Coh. I Ituraeorum

Single military diplomas recording *coh. I Ituraeorum* among Syrian troops come from AD 88⁶⁸⁷, respectively AD 109 (AE 1990, 860) and 110 (CIL XVI 57 = IDR I, 2) in Dacia's army. Stamps from Porolissum mentioning this unit are identified in contexts dated in the 2nd—beginning of the 3rd centuries AD⁶⁸⁸. On the other hand, the two stamps from the fort at Romita of same type to one discovered at Porolissum, are associated with earlier levels of the fort and baths⁶⁸⁹. Neither the troop's stationing location, nor the moment when it was transferred to Thracia are certain⁶⁹⁰. In AD 135, the troop seems to be present in Cappadocia, being mentioned among the troops led by Arrian against the Alans, yet it was no longer attested in this province after that point⁶⁹¹.

Coh. VI Thracum

The Thracian unit was part in AD 80 (CIL XVI 158) of Germania army, in AD 84 (CIL XVI 30) and 85 (CIL XVI 31) of the Pannonia army, and later of Moesian troops⁶⁹². In Dacia then in Dacia Porolissensis, it would be mentioned beginning with the AD 110 diploma⁶⁹³. It is hard to specify where in the north-western *limes* area it was garrisoned. Considering the larger number of stamped tiles and bricks from the fort at Romita, the troop could have been stationed there⁶⁹⁴. These stamps were ordered typologically, yet the establishment of chronologies based on stamp letters' shape or combinations is tricky⁶⁹⁵. It is interesting that the CO VI T abbreviation type was discovered only at Porolissum, where they seem to belong to a later context⁶⁹⁶.

⁶⁸⁶ Szilágyi 1946, 56, pl. XVIII/268. Another explanation would be that the reversed S represents in fact the abbreviation for *milliaria*. E. Tóth, maintains related to *coh. I Ituraeorum* that the mirror-figured S, sometimes with extended ends, appearing by the stamps end is in fact a reversed ∞, see Tóth 1978, 50–1.

⁶⁸⁷ CIL XVI, 35. For a detailed history of the troop see Țentea 2004.

⁶⁸⁸ Garbsch, Gudea 1991, 71.

⁶⁸⁹ The troop is considered to be, beside *coh. VI Thracum*, the garrison of the fort at Romita in the earthen enclosure phase dated under Trajan, Matei, Bajusz 1997, 91–93.

⁶⁹⁰ It is mentioned here within inscriptions from Thracia, AE 1897, 123; AE 1907, 50; CIL XI 2113.

⁶⁹¹ Arrian, *Alan*. Holder 2003, 102, 117, Tab. 16.

⁶⁹² CIL XVI, 46; RMD 6.

⁶⁹³ CIL XVI, 163 = IDR I 3. Subsequently appears in the diplomas from AD 114 (RMD IV, 226); 154 (IDR I 17 = RMD 47); 164 (IDR I 18 = RMD 64; CIL XVI, 185 = IDR I 19 and IDR I 20 = RMD 63).

⁶⁹⁴ The 90's excavations identified 22 exemplars, of which five inside the fort, Matei, Bajusz 1997, 72.

⁶⁹⁵ The troop stamps seem to have been discovered at Romita in early levels as well, thus supposing its stationing within the fort from the beginning of the 2nd century AD, Matei, Bajusz 1997, 78.

⁶⁹⁶ Gudea 1984, 221–222.

No inscription recording either the troop or its soldiers was found in Dacia. One may not exclude that the unit left Dacia after AD 164, being probably present in Britannia, as recorded on the lead seals from Brough under Stainmore⁶⁹⁷.

***Coh. I Batavorum* ∞**

The inscription (CIL III 839 = ILS 2598) dedicated by *vet(eranus) ex dec(urione) Florius Virilis* to a centurion from *coh. I Batavorum* ∞ discovered at Romita may prove that the troop or its vexillations were at some point present, although the fact remains uncertain⁶⁹⁸, yet only the centurion's presence there is hard to admit. The case of the Românași fort, near Romita, where this troop is also attested (CIL III 841) is similar.

The Batavians troop was initially part of Pannonia and Pannonia Inferior army, being mentioned in the diplomas from AD 98 (CIL XVI 42), 100/2 (RMD 144), 113 (RMD 86), and signalled starting with AD 130–131 (Weiß 2002, no. 5) or 133 (IDR I, 11 = RMD 35) in the army of Dacia Porolissensis. Here it continues to be attested in the diplomas from AD 151 (Isac 2001, 54), 154 (IDR I, 17; RMD 47) and 164 (CIL XVI 185 = IDR I, 19; IDR I, 18 = RMD 64; IDR I, 20 = RMD 63; AE 1999, 1103).

Probably after mid 2nd century AD, the cohort replaced *coh. VI Thracum*, being displaced from Potaissa once with the quartering here of *leg. V Macedonica*, as supposed by M. Bărbulescu⁶⁹⁹. It is true that the surface of Romita fort, although impressive, is not satisfactory for the full strength of two auxiliary troops, but it would explain the existence of two similarly sized *praetoria*, since the commanders of the garrison troops were of same rank. Once with the troop change, the fort at Romita and its internal planning would receive different shape, the one also suggested by magnetometric measurements plan.

13. SUTOR

The existence of a fort at Sutor, on Almaș valley, was supposed for a long time, first attempts being made by C. Torma⁷⁰⁰. Although several archeological digs were carried out for the purpose of establishing the fort's right location⁷⁰¹, it was identified only in 2002. Thus, the fort is located on Huedin-Zimbor modern road, more to the west than presumed insofar (pl. 14). Following archeological research, latest ending in November 2008, a fort of approximately 165 × 220 m was observed⁷⁰². Its sizes are identical with the fort at Hoghiz where *ala Asturum* was quartered. Hence, it is possible that *numerus Maurorum*, attested at Sutor by numerous tile stanps, might have been equivalent to an *ala quingenaria*. Another variant is that mixed or several troops were garrisoned, similarly to the fort at Romita of larger sizes than the new fort at Sutor.

Based on the large number of discovered stamps, it was supposed rightfully that *numerus Maurorum Optatianensium* was stationed there.

⁶⁹⁷ Bogaers 1974, 455; Holder 1982, 122.

⁶⁹⁸ Some authors maintain the certain presence of this troop at Romita after the arrival of legion *V Macedonica* at Potaissa, where the unit of Batavians is also attested (CIL III 13766, 13767), see Bărbulescu 1987, 36.

⁶⁹⁹ Bărbulescu 1987, 36.

⁷⁰⁰ Torma 1864, 10–1; Gudea 1997d; Ilieș et alii 2002. In general, the authors placed the fort where K. Torma argued its location.

⁷⁰¹ Ilieș et alii 2002. Three sides of the fort were identified in 2006, c. 165.00 m long (or wide).

⁷⁰² Results by a team comprising S. Cociș, C. Ilieș and Al. V. Matei are forthcoming. We thank them for the information they provided.

14. TIHĂU (pl. 16)

Regarding the interior of Tihău fort, the result of archaeological excavations from 1958 consisted in the unveiling of a building in *latus dextrum* or *retentura dextra*. Building A was thus identified two constructional phases⁷⁰³.

However, following magnetometric research and soil resistivity measurements performed in 1999 by a Dutch team led by late J.K. Haalebos, the internal planning of fortification at Tihău is the best known from Dacia⁷⁰⁴. Except for a few details related to the buildings construction technique or the accurate succession of the various buildings phases, the location of all architectonic constructions is known within the fort at Tihău.

Principia

Principia stretches over 5.5% of the fort surface. Single noticeable details are two side rooms flanking the courtyard, while *aedes* is slightly projected outwards.

Separation between *basilica* and the courtyard is visible as a continuous line⁷⁰⁵.

Praetorium

The building located in *latus dextrum* was considered, due to its sizes and location, the commander's quarters. It lies on almost 5% surface, considerable sizes if we consider that the baths (?) partially excavated in 1958, are also an annex of the commander's quarters⁷⁰⁶. It was identified probably by previous diggings, as a number of five rooms were uncovered, two of which were provided with heating system, one ending with in an apse⁷⁰⁷. At least two construction phases were observed.

Barracks

In *praetentura* barracks are oriented *per strigas* and probably *per scamna* in *retentura*, while with two double barracks were identified on each side of *via praetoria*. The two barracks located in *retentura* are obviously double. If all constructions from *praetentura* are deemed barracks, then the structures from *retentura* may be considered stables or barracks accommodating supplemental troops, since a *quingenaria* troop like *cohors I Cannanefatium*, even if *equitata*, requires six barracks, respectively eight barracks and two stables, in case of full strength. Detectable compartments inside these buildings from *retentura* indicate a different purpose than living space. Thus, it is rather clear that each building block was divided longitudinally, yet the two resulting halves are not similarly partitioned, the one from the north-west having a much more complex compartmenting⁷⁰⁸. As a result, I consider that constructions from *retentura* are barracks/stables of the type from the *retentura* of the Gilău fort—stables, storehouses or *fabricae*. Harness items found within this fort seem to confirm the first hypothesis, resulting that the troop of *Cannanefati* was *equitata*.

The archaeological digs carried out by C. Opreanu in 1997 on the southern side between the south-eastern corner and the gate unveiled another building in the enclosure area, deemed as late construction and analogies were provided⁷⁰⁹.

⁷⁰³ Protase 1994, 86–7, presents in detail all rooms of this building. For previous research in the fort at Tihău see also Ferenczi 1957.

⁷⁰⁴ Haalebos 1999; Haalebos 1999a.

⁷⁰⁵ Haalebos 1999a, *passim*.

⁷⁰⁶ Results are not clear in the area of the supposed baths, see Haalebos 1999a, 25–6.

⁷⁰⁷ For the research of 1958 see Macrea et alii 1960, Fig. 23, 385.

⁷⁰⁸ Haalebos 1999, 26.

⁷⁰⁹ Opreanu 1998, 81. Similar buildings exist, as we have seen, in other forts from Dacia Porolissensis.

Troops

Troops attested at Tihău are *cohors I Cannanefatium* and vexillations from *legio XIII Gemina*⁷¹⁰. The buildings from *retentura* and some harness items seem to confirm that *Cannanefati* troop was *equitata*⁷¹¹. The biggest issue is that the troop is attested only in the diplomas from Dacia Porolissensis of AD 164 (RMD 64) or, earlier, in that of AD 154 (RMD 47), being hard to believe that up to that point no discharges were done, in case it would have been present in Dacia under Trajan.

On the other hand, the inscription proving the presence of a *leg. XIII Gemina* vexillation was considered evidence for a vexillation equivalent to a *quingenaria* auxiliary troop, which would probably remain here until the arrival of *leg. V Macedonica* in Dacia and of *coh. I Cannanefatium* at Tihău⁷¹². The inscription was found in the *decumana* gate area⁷¹³, proving its or even the fort construction by legionaries, still is not sufficient proof to confuse the vexillation with the garrison troop equivalent to a *coh. quingenaria*.

15. TURDA

The existence at Turda of an auxiliary troop fort, prior the arrival of legion *V Macedonica*, was supposed for a long time⁷¹⁴.

The fort was located on 'Dealul Zânelor', where the existence of a fortification was certain and from where come a series of Roman weaponry items, thus confirming such establishment⁷¹⁵.

Troops

Troops or their soldiers attested at Potaissa by inscriptions are numerous, yet the single recorded also by tile material are *legio XIII Gemina*, *cohors I Hispanorum* and *cohors I Alpinorum*⁷¹⁶.

Currently, for lack of excavations inside the presumed fort, it is hard to establish which of the troops attested here were the fortification garrison, especially since its sizes are of maximum 1.00 ha⁷¹⁷. As such, a *quingenariae equitatae* or a *milliariae* troop could not have been stationed here at full strength. *Coh. I Alpinorum* is part, after AD 118/119, of Dacia Superior army⁷¹⁸.

⁷¹⁰ Wollmann 1974, 150–3.

⁷¹¹ Haalebos 1999a, 35.

⁷¹² After Macrea, Protase, Rusu 1960, 385, where the *Cannanefati* troop was confounded.

⁷¹³ *Vexillat(io) / leg(ionis) XIII / Gem(inae)*, see Macrea, Protase, Rusu 1960, Fig. 24.

⁷¹⁴ See Nemeti 1999, with entire bibliography.

⁷¹⁵ Nemeti 1999, 195–7.

⁷¹⁶ Nemeti 1999, 194–5.

⁷¹⁷ Information S. Nemeti.

⁷¹⁸ CIL XVI, 90 = IDR I 14; RMD 123

III. DACIA SUPERIOR

The military character of the province of Dacia Superior is proven by the existence of over thirty forts and numerous troops. Therefore, the accurate understanding of the military system including forts and troops is mandatory in order to determine its real purpose. Yet, archaeological excavations in Dacia Superior forts are extremely deficient and the study of auxiliary troops movements from one fort to the other also represents, a goal.

Within this short analysis we shall take into account only auxiliary forts, including those of whose sizes vary from 1 ha to 6.5 ha, without mentioning fortresses or smaller-sized forts of different features compared to a proper auxiliary fort. I shall not examine the forts defensive system, i.e. the rampart, ditches or gates unless where they are the single known elements, being rarely significant for dating constructional phases. In addition, the text shall not include both fortifications inaccurately identified and supposed based only on the existence of tile stamps and fortifications where no archaeological research had been carried out inside. The latter comprise unfortunately large part of the localities of Dacia Superior where a fort was presumed: Bulci, Aradul Nou, Sânnicolaul Mare, Cenad, Szeged, Banatska Palanka, Dupljaja, Grebenac, Vršac, Surducul Mare, Fârliug, Orșova, Mehadia, Călugăreni, Sărățeni, Odorheiul Secuiesc, Sânpaul, Cristești, Orăștioara de Sus, Războieni, Sighișoara, Zăvoi (?). Regarding several of them, I shall discuss the relation with the troop supposed to have been garrisoned. Concerning the troops, I shall provide details only if relevant.

Forts along Mureș river, like Szeged, Bulci, Aradul Nou, Sânnicolaul Mare, Cenad continue to remain a ‘mystery’, the activity of legionary vexillations, especially those of legion *XIII Gemina* in this area being obvious following the discovery of tile stamps and inscriptions. The military character of the area is obvious, yet I have no correct information on the camping sites of these legionary vexillations.

It is hard to specify whether the fortification at Vršac located approximately at 15 km west of the Lederata-Tibiscum road⁷¹⁹, existed indeed, being supposed here following the discovery of inscriptions mentioning *coh. II Hispanorum* and *ala I Tungrorum Frontoniana*⁷²⁰. The cohort is part of the Dacian army, being recorded by the diplomas from AD 109 and 110⁷²¹. The inscription from Vršac which mentions this troop dates from AD 108⁷²². Subsequently,

⁷¹⁹ For the forts in the Banat area, see Nemeth 2005, *passim*.

⁷²⁰ CIL III, 6273 = IDR III/1, 106; IDR III/1, 107.

⁷²¹ AE 1990, 860; CIL XVI, 163.

⁷²² CIL III, 6273 = IDR III/1, 106.

the troop belongs to the army of Dacia Porolissensis, being in AD 154⁷²³ the garrison of the fort at Bologa with certainty. Hence, one may not exclude that it was initially stationed in south-west Dacia, yet it is not certain if it was the garrison of either Vršac or Banatska Palanka forts, where tile stamps of the troop were discovered, yet none was identified yet. *Ala I Tungrorum Frontoniana*, which starting with Hadrian's reign was garrisoned at Ilișua, seems to have initially activated in south-west Dacia, being mentioned on a bronze plate from Pojejena⁷²⁴, while a troop *signifer* was referenced on a stela or altar dedicated to his deceased spouse at Vršac⁷²⁵. This could have happened only between AD 114⁷²⁶, the last mention of the troop within the diplomas from Pannonia Inferior and Hadrian's reign when it is stationed at Ilișua.

A situation common to the forts in south-west Dacia is found at Banatska Palanka, where, considering the many military stamps, the military character of the site is certain. Nonetheless, the fortification is still unidentified.

The forts from Grebenac, located close one to another, were identified on the field, yet only their sizes are certain. We have no data on the garrison troops of such fortifications except for their sizes, the smaller fort being adequate for a *numerus*. D. Protase maintains that the presence of legionary vexillations at Surducul Mare (*Centum Putea* (?)) is possible under Trajan, the fort here, together with the forts at Vărădia and Berzovia being abandoned by the beginning of Hadrian's reign⁷²⁷.

16. BRÂNCOVENEȘTI

The fortification at Brâncovenеști, on the right bank of Mureș River, located on the Dacia's eastern *limes* is set on a 337–431 m high terrace⁷²⁸. Is it sized 177 × 144 m (2.55 ha) (pl. 24). The fort, aligned with the forts at Orheiul Bistriței and Călugăreni, blocks the Mureș valley from east and is according to its sizes, the most important in the area not by accident, considering its location in the large valley of Mureș and an *ala* in garrison.

Although archaeological excavations were performed over a long period between 1970 and 1987, they were only occasionally extended inside the fort, data on the internal planning of buildings being incomplete⁷²⁹. In exchange, epigraphic discoveries and sculptural monuments found were almost entirely published, the majority coming from the 1970–1973 excavations performed in the enclosure area: berm and ditch in the gate *decumana* area⁷³⁰.

The forts strategic position seems to confirm its existence as early as the beginning of the province, yet earliest archeological material dates under Hadrian⁷³¹.

Concerning the internal planning, we find that floor prints pertaining to a timber construction (barrack?) and traces of a post of the outer walls were discovered in *retentura*⁷³².

⁷²³ RMD 47.

⁷²⁴ Petolescu 1995, 48, n. 205.

⁷²⁵ IDR III/!, 107.

⁷²⁶ RMD 87.

⁷²⁷ Protase 1967, 67; Protase 1975, 348.

⁷²⁸ For the history of research see briefly Protase, Zrinyi 1993; Protase, Zrinyi 1994, 78–82; Zrinyi, Petică 2000.

⁷²⁹ The fact is due to constructions and a cemetery dated in the medieval period, see excavations plan at Protase, Zrinyi 1994, Pl. XXV. Unfortunately, the trench widths of only 1 m hindered the establishment of coherent building plans to a large extent.

⁷³⁰ The majority are funerary monuments, after Protase, Zrinyi 1992; Protase, Zrinyi 1994, 110–121. See also Russu 1977.

⁷³¹ Protase, Zrinyi 1994, 52.

⁷³² Protase, Zrinyi 1994, 102–3.

Other trenches dug in *latus* identified the 15.40 m long wall of a ‘rectangular’ supposedly hospital, yet no arguments were provided⁷³³. Single information related to this wall regards the embedding of bricks and *tegula mammata* fragment. Inside the building, pottery and bone fragments were found, too little information to decide on the building type.

Last coins within the fort come from Gordian III and Philip Arabs⁷³⁴, consequently the fort had similar existence to other forts on the *limes*. Yet, first coins date only from Hadrian, a rather awkward fact since within the remainder of the forts, 1st century AD or Trajanic coins are most frequent due to the pays that soldiers received in the Dacian wars aftermath. Hence, considering the last record of the garrison troop, it is possible that fort’s early period dated once with the new reorganization of the province by the beginning of Hadrian’s reign, when in fact, the majority of cavalry troops were transferred to Dacia, like the one at Brâncovenești⁷³⁵. A different explanation of early coins or artefacts lack would be that similarly to the *ala* fortifications from Gilău and Ilișua, a smaller initial fort existed, yet the fact does not entirely explain why coins from the civil settlement that would have been established nearby are missing.

Troop

The troop quartered in the fort at Brâncovenești is *ala I Numeri Illyricorum*. The unit is attested by a stamp found prior the systematic excavations initiated in 1970 (CIL III 6284 = 8074, 7)⁷³⁶ and by two inscriptions. The troop’s name and especially the significance of letter N initially completed under the form *n(ova)* led to controversy⁷³⁷. The single stamp attesting the ALNILYR troop was considered an abbreviation of *a(la) I n(umeri) Il(l)yr(icorum)*, due to A and L, respectively I and N ligatures⁷³⁸, or *a(la) n(umeri) Il(l)yr(icorum)*⁷³⁹. I. I. Russu’s reading of the single inscription in the fort at Brâncovenești recording *ala* is *Inlyricorum*, based on the N and L ligature⁷⁴⁰, although the troop appears again as *a(la) n(umeri) Il(l)yr(i)c(orum)* within an inscription discovered at Apulum⁷⁴¹. The term *numerus* is not used ethnically, but as equivalent for *vexillatio* or simply for designating a military unit⁷⁴². Evidently the use of the term *numerus* for a subunit or military unit is not unexpected, yet the association between *ala* and *numerus* for a troop which did not form as ethnic troop similar to *Palmyrenes*, *Moors* or *Britons* troops is odd. One of the closest analogies is the Greek inscription from Thessaloniki (ILS 9472) recording a *praefectus alae numeri Palmyrenorum Porolissensium*, the troop conversion from an ethnical Palmyrian *numerus* into an *ala* being obvious. Probably this why the *numerus* title is preserved, in order to distinguish between customary *ala* and a troop that becomes *ala* from a *numerus* understood as ethnical troop.

⁷³³ After Protase, Zrinyi 1994, 103.

⁷³⁴ Protase, Zrinyi 1994, 125–7.

⁷³⁵ Due to its strategic location, the excavators of Brâncovenești doubted the fort had not existed under Trajan, Protase, Zrinyi 1994, 141.

⁷³⁶ The stamp housed with the History Museum of Cluj (inv. no. MIC 19 = V. 12896) is republished in Protase, Zrinyi 1975, 62, pl. XXVII.

⁷³⁷ Paulovics 1944, 26. The issue was solved in Russu 1956; Gostar 1968, 475.

⁷³⁸ Protase, Zrinyi 1975, 62.

⁷³⁹ Russu 1977, 99.

⁷⁴⁰ Russu 1977, 99.

⁷⁴¹ Băluță 1987, 169–72; IDR III/5, 585.

⁷⁴² On the use of the term *numerus* designating a detachment, subunit or even military unit see Speidel 1977 with bibliography.

It is hard to believe that a *vexillatio* could have survived under this form from under Trajan until AD 129. In fact, within a previous article, even the excavators wondered if the initial troop of the fort could not have been another or whether the earthen fort was constructed subsequent Trajan's reign⁷⁴³.

It was supposed that the troop was initially matched to the homonym unit from Dacia Inferior stationed in the fort at Hoghiz and attested by several military diplomas (see *infra*)⁷⁴⁴. Or, a recently discovered diploma confirms the existence of this *numerus* in Dacia Superior in AD 136/8 as *equitib(us) et pedit(ibus) qui [milit(averunt) in al(is) III et vexil(latione) or numer(o)] Illyr(icorum)*, therefore confirming the existence of two homonym troops originating from Illyricum and the fact that Brâncovenești fort belonged to Dacia Superior⁷⁴⁵. Horsemen, part of the troop were also mentioned at Apulum⁷⁴⁶ and Roma⁷⁴⁷.

17. BUMBEȘTI

Overseeing the southern entrance to Jiu valley, on the road connecting Oltenia to Transilvania, two forts placed at 800 m distance one from the other (pl. 23) were identified at Bumbești⁷⁴⁸. One of two is 'better' known. Its western part was destroyed by Jiu River, the single undamaged side measuring 167.00 m⁷⁴⁹. The very odd shape of the fortification stands out. The military unit of garrison erecting the stone enclosure by the beginning of the 3rd century AD was *milliaria*, yet the sizes of the fort's southern side is much reduced⁷⁵⁰. A few buildings were partially excavated inside the fortification, however their function is unknown. Their location inside the fort seems atypical.

Troops

Archaeologists performing the excavations supposed, based on the discovered tile stamps, that the fort was used by *coh. IIII Cypria* and detachments of *legio V Macedonica*, *IIII Flavia* or *VII Claudia*. Considering numerous tile stamps attesting it⁷⁵¹, *coh. IIII Cypria* stationed here probably sometime in the 2nd century AD⁷⁵². It is known for certain that by the beginning of the 3rd century AD, *coh. I Aurelia Brittonum milliaria* rebuilt the fortification enclosure in stone⁷⁵³. Still, the towers of the two known gates are not at all projecting outwards, on the contrary, they are very elongated inwards. The situation is interesting

⁷⁴³ Protase, Zrinyi 1975, 64.

⁷⁴⁴ See Russu 1977, 99–100.

⁷⁴⁵ Petolescu, Corcheș 2002, 120–6.

⁷⁴⁶ CIL III 1197 = IDR III/5, 585; IDR III/5, 475 = AE 1987, 829; IDR III/5, 631 = AE 1988, 947.

⁷⁴⁷ CIL VI 3234 = ILS 2209 = IDRE I 54.

⁷⁴⁸ Tudor 1978, 269, 309; Bujor 1959; Bujor 1983; Vlădescu 1986a.

⁷⁴⁹ Archaeological materials from Bumbești-Jiu fort are dated starting with the 2nd century AD, see Marinouiu, Bratu 2000, 27. The excavators consider that the undamaged side is that where *porta praetoria* is located in the middle (CCA 2004 (2005), no. 59), although it also might be *decumana*.

⁷⁵⁰ The side measures less than 50 m up to the preserved gate, much more less even in the case of a *porta principalis*.

⁷⁵¹ Stamps were discovered including in the baths outside the fort, CIL III 14216, 27 = IDR II 179.

⁷⁵² The troop is recorded in Moesia Superior in AD 103/7 and then in AD 109, 110 in Dacia, CIL XVI, 54; RMD 148; CIL XVI, 37. It is supposed that the unit was *quingenaria*, see Spaul 2000, 389; Marinouiu 2003, 58–9. C. C. Petolescu believed that the troop was subsequently displaced north of the Black Sea, where a soldier of cohort *Cypria* was mentioned, without specifying the number, Petolescu 2002, 102, n. 8.

⁷⁵³ CIL III, 14485A; IDR II, 174.

considering the fact the numerous forts from Dacia were dated in the first half of the second century precisely because of the rectangular and not outward projecting towers.

The identification of *coh. I Aurelia Brittonum milliaria Antoniniana*, erecting the stone enclosure of Bumbești fort with *coh. I Ulpia Brittonum*⁷⁵⁴ which was quartered at Porolissum until the second half of the 2nd century AD is possible⁷⁵⁵. To this end, I remind that the troop of Britons, compared to the other military units from Porolissum, is not attested by tile stamps, except for two exemplars dated in an early period⁷⁵⁶.

18. Southwards, in the forts at CĂLUGĂRENI and SĂRĂȚENI archaeological digs targeted their fortification systems⁷⁵⁷. The enclosure of the fort at Sărățeni was researched more extensively, two of the gates being unveiled on the southern and eastern sides of the fort. It is interesting that the gates are located approximately by mid both sides, therefore it is impossible to specify which is one of *portae principales* and which is *decumana* or *praetoria*. Interior buttresses were discovered on all sides where excavations were carried out. A tower, which does not seem to be an interval one due to its rather large sizes compared to the discovered gate towers, was identified in the northern side, closer to the north-eastern corner of the fort. Even odder is the fact that the tower had passageways in and out of the fort. Therefore it is certain that it functioned as a gate, like at Vărădia. It is hard to specify the kind of gate it was, as it was not symmetrical to the one on the opposite side, yet not very much displaced compared to it, the difference from the gate axis being of c. 5.00 m. Therefore, *via principalis* might have connected these gates. Gates by single towers are rather specific to timber structures, yet there are cases when they are erected of stone⁷⁵⁸.

The single building discovered inside the fortification is located near the gate on the western side of the fort, at c. 10.00 m southwards, close to *via sagularis*. Is it rectangular, has no compartments, yet its walls seem very solid. Its sizes are c. 10.00 × 6.00 m (60 m²), yet its function is impossible to recognize.

It is interesting that the single military unit recorded in both forts—by same stamp types⁷⁵⁹—is *coh. I Alpinorum equitata*⁷⁶⁰. The proof that the troop was *equitata* comes from an Apulum inscription where it appears as *c(o)hor(tis) I Alp(inorum) eq[u]?(it)(atae)* (IDR III/5, 480). Both fortifications are sufficiently large to accommodate an *equitata*, even *milliaria* cohort, yet it is impossible to say where the cavalry unit was stationed. It is mentioned by the diplomas of Dacia Superior of AD 119, 136/8, 144 and 179⁷⁶¹. Considering that an inscription from Sărățeni assigns it the surname *Antoniniana* (CIL III 7713 = IDR III/4, 206) as well, its presence in the area seems unmistakable during the 3rd century AD⁷⁶², yet the cohort name

⁷⁵⁴ Marcu 2004, 224–7.

⁷⁵⁵ CIL III, 14485 a; IDR, II, nr. 174. The epithet *Ulpia* disappears from the troop title (see diplomas of AD 164, RMD 63–4). In fact, within the same diplomas, such epithet is no longer present to other troop names as well, see the case of the cohort of Hispanics from Orheiul Bistriței. The imperial surname *Aurelia* could have been granted as honourific title without implying the creation of the cohort *I Aurelia Brittonum* under Marcus Aurelius, see Bersanetti 1940, 105–7; Wagner 1938, 108.

⁷⁵⁶ Gudea 1997c, Fig. 12.

⁷⁵⁷ See Protase 1965.

⁷⁵⁸ Such a tower was discovered by one of *via quintana* extremities in the fort at Wallsend, Hodgson 2003.

⁷⁵⁹ IDR III/4, 212–3; IDR III/4, 220.

⁷⁶⁰ For troops records prior Dacia, see Petolescu 2002, 81–2; Marcu 2004, 572–3.

⁷⁶¹ Eck, MacDonald, Pangerl 2001; Petolescu, Corcheș 2002; CIL XVI 90 = IDR I 14; RMD 123 = AE 1987, 843.

⁷⁶² Petolescu 2002, 82.

did not preserve within the inscription, so we cannot be certain it made reference to it. The troop also appears in the inscription dated under Septimius Severus from Micia, wherefrom we find it participated beside other troops in the erection of a construction (CIL III 1343 = IDR III/3, 77).

Recently, following an investigation in the National History Museum of Transylvania storage, we have noticed that stamps bearing the CPAI abbreviation attributed to cohort I *Alpinorum*, belong in fact to *coh. I Augusta Ituraeorum*⁷⁶³.

Since the majority of these stamps were identified at Călugăreni and no CPALP stamps were discovered here, it is obvious that the fortification was garrison for the Huraens troop.

19. The eathern fort at **CĂTUNELE** oversees Motru valley, yet the troop quartered there is unknown. Based on its sizes, one may argue it was a *quingenaria* troop. Excavations were performed only in the defence system area, hence nothing is known on its internal planning⁷⁶⁴. A similar situation is found in the case of the fortification located north, at **Pinoasa**.

20. CIGMĂU

The fort is located west of village Bobâlna and south of Geoagiu in a place sugestively called ‘Cetatea Urieșilor’ (‘Giants fortress’), on a plateau dominating Mureș valley from east and at 8 km from Geoagiu (pl. 22). The fortification is approximately at mid distance between the fort at Micia (c. 40 km south-west) and Apulum (c. 45 km north). Its irregular size, elongated trapeze, is explicable if we take into account the geographical area of location and the garrison troop type. The fortification was placed on a high terrace of Mureș River, its enclosure following closely the natural land configuration. Due to the fort’s strange shape, narrowing to the east⁷⁶⁵ and of much reduced width compared to the length, we would be entitled to suppose that *praetentura* was destroyed by Mureș floods or by the nearby construction of the county road. The authors of the archaeological excavations and aerial photographs maintain they clearly show that the southern enclosure of the fort was located very close to the entrance into *principia*⁷⁶⁶. A. Pescaru and E. Pescaru carried out in 2000 and 2002 the archaeological diggings⁷⁶⁷. Little is known from the first excavation year, except for researched areas and trenches. Discoveries in the fort’s northern, eastern and western enclosures were important, however we are not told anything regarding the fortification total sizes. Nevertheless, the archaeologists published the results of subsequent digs commendably, revealing almost every technical detail of the identified stone buildings.

Therefore, *praetentura* lacks entirely from the initial plan of the fortification. The fact is odd as fortifications of no classical tripartite plan are found only in 1st century AD, under Claudius, the classical example being the fort at Valkenburg⁷⁶⁸. Or, *retentura* and not the front part of the fort lacks here, like it happens at Cigmău. Thus in the latter case, *via principalis*,

⁷⁶³ Piso, Marcu 2009, *passim*.

⁷⁶⁴ See Tudor, Davidescu 1976, *passim*.

⁷⁶⁵ The authors of aerial photos maintain there is a 30° difference between the short sides, Hanson, Oltean 2003, 8, Fig. 5.

⁷⁶⁶ CCA 2004 (2005), no. 105, 132; Hanson, Oltean 2003, 8.

⁷⁶⁷ The excavations results are published in site reports chronicles, CCA 2004 (2005), no. 105.

⁷⁶⁸ Glasbergen, Groenman-van Waateringe 1974. In the case of the early fort at Eining, exhibiting an awkward internal planning, only *latus praetorii* and *praetentura* seem to have existed Czysz, Dietz, Fischer, Kellner 1995, 434–6, Abb. 127.

one of the most important roads of a fort, becomes marginally *via sagularis*. The single gate identified was *porta principalis sinistra*⁷⁶⁹.

Irregularly-planned forts are corroborated by Vegetius, who reminds that fort plans may be occasionally square, sometimes triangular or circular, according to land peculiarities⁷⁷⁰. Or, this ‘free-shape’ is rather characteristic to late Antiquity, except for a few very early fortifications⁷⁷¹, in contrast with the forts of the 1st—2nd centuries AD or even the first half of the 3rd century AD and Polybios⁷⁷² and Hyginus descriptions⁷⁷³.

Principia

Although there are anomalies regarding the general plan of the fort, the headquarters building has a classical plan (fig. 26). Thus its sizes are of 34 (north-south) × 35 (east-west) m (1190 m²), a significant space rather square⁷⁷⁴. The building has an inner courtyard surrounded by a portico and rooms on three of the sides. The entrance is on the southern side, comprising a sort of 6.00 m wide *vestibulum* flanked by the rooms and portico extremities delimiting the courtyard on this side as well. It is interesting that the western end of this portico, wherefrom theoretically the *vestibulum* was reached, seems to have been blocked at some point, the plan provided by the excavators showing visibly the extension of the eastern wall of the room left of the entrance, closing the portico as well and the attachment of another wall doubling the first in the portico area. The outer walls of the building are 1.20 m wide, while inner walls are 0.70 m wide, rather strangely considering that the *basilica* was very high, therefore it should have had more solid walls.

The inner courtyard paved with a mortar layer is surfaced 13.00 × 18.00 (234 m²)⁷⁷⁵, occupying only 19% of the total surface of the building. This is due to the fairly large sizes of the headquarters building and the addition of a c. 2.70 m wide portico⁷⁷⁶ and several rooms on three of the courtyard sides.

The portico was made of a *stylobat* and three column bases placed at 3.50 m one from the other and sized 0.75 × 0.75 × 0.30 m were incorporated in the western wall. Column bases are small⁷⁷⁷, yet they were placed on a stone base that definitely increased their strength.

Behind the portico, several rooms were set on the eastern and western sides of the courtyard⁷⁷⁸. Thus, a single very long room of c. 12.00 m and three divisions may be observed on the western, respectively eastern sides. The rooms’ length on the eastern side decreases from north to south, the first being c. 8.50 × 2.50 m, the following of c. 3.00 × 2.50, while the last is 0.90 × 2.50. Alike in other cases, one might say that this compartment was a hallway. One may also wonder whether a storey was reached from there. The building walls are rather

⁷⁶⁹ Insofar, the most complete and suggestive fort plan may be consulted from Hanson, Oltean 2003, Fig. 5.

⁷⁷⁰ *Vegetius* I.23 sau III.8.

⁷⁷¹ See Johnson 1987, 254–9, Abb. 174, 175, 177, 178, who maintains that the plan of the forts based on land configuration, which could be often polygonal start under Claudius to look like a ‘playing card’ (p. 259).

⁷⁷² *Polybios* 6.31.10, 6.42.

⁷⁷³ *Hyginus* 21.

⁷⁷⁴ Sizes reported following the analysis of aerial photos are of 32.50 × 32.50 m, Hanson, Oltean 2003.

⁷⁷⁵ CCA 2004 (2005), no. 105.

⁷⁷⁶ Identical sizes at Housesteads, yet no rooms were set on the sides bordering the courtyard, Taylor 2000, Tab. 3, Fig. 10.

⁷⁷⁷ At South Shields column bases are 1 m² (Bidwell, Speak 1994, 62–4), yet they are individual.

⁷⁷⁸ Unfortunately, the excavators did not provide further details on such compartmenting (CCA 2004 (2005), no. 105), yet the plan is sufficiently clear to learn at least the partitioning fashion.

thin to support such a theory. Finally, considering the portico's very small width I do not exclude the possibility that a storey existed. The last room might also have been an accessway into the south-eastern corner of the building and the second room on the eastern side. Such a hypothesis is emphasized by the fact that the mentioned building in the corner did not have an exit or common walls with the portico, but only with neighbouring rooms. Unfortunately, in neither part of the headquarters building were observed entrances. It is obvious that access into that could have been easily made through one of the adjoining rooms, therefore the existence of the hallway for access to a storey is still possible.

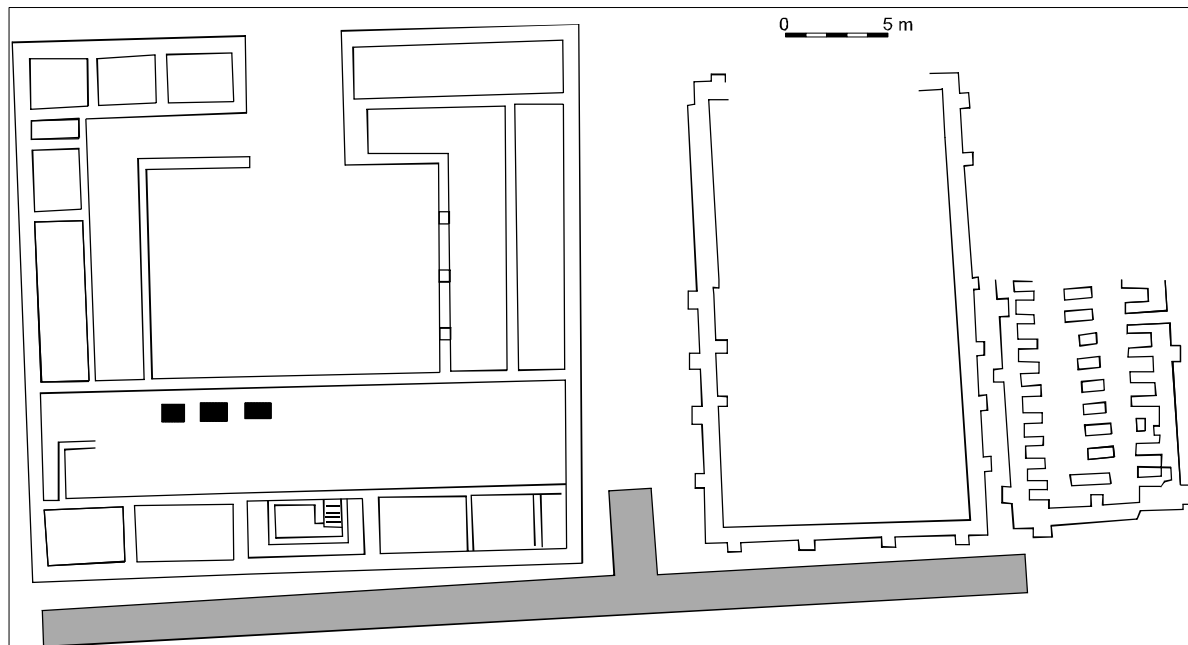


Fig. 26

The situation of the rooms placed on both sides of the entrance into *principia* is also interesting. A single room was placed west of it, similar in shape and sizes to that perpendicular on the one in the western side, being shorter by 2.00 m. Hence, it could have been a storage room. In exchange, the situation east of the entrance is different as three equally-sized compartments, each of c. 3.00 × 2.50 m, were found here, thus adequate for offices.

Compartments around the courtyard could be, as the excavators also agreed, *armamentaria*⁷⁷⁹, yet not all rooms had the same purpose. It is interesting that three of the compartments are rather long, while the other four are smaller, similar to the rooms in the back. Another argument for the two long rooms in the western half of the courtyard usage as storage rooms is the portico blocking in this area, thus providing a different function for a space which evidently was less used⁷⁸⁰. On the other hand, in the south-west corner, beside smaller compartments, the hallway existed as well. It would have been interesting and probably rare to restore the headquarters building with a storey only on a single side of the courtyard, yet one may not exclude that this was the case at Cigmău. *Contra*, one may argue that no construction structural differences were identified between the two courtyard wings.

⁷⁷⁹ CCA 2004 (2005), no. 105.

⁷⁸⁰ It is possible this new 'partition' was thus a store room.

Basilica is sized 32.50×5.00 m⁷⁸¹ (162.50 m²), lying on 13% of the building total surface. Passage from courtyard to the *basilica* was probably made by arches, whose bases must have been placed, like the case of the courtyard *stylobat*, on the wall, visible in plan, separating the courtyard from the hall. The single column base preserved is located in the extension of the three column bases incorporated into the western wall of the courtyard, at the intersection of this *stylobat* with the southern wall of basilica. Along the eastern half of the southern wall of basilica, three monument bases (probably statues also) sized 1.70×1.20 m were identified during excavation.

It is curious that basilica walls are not thicker than those of the building compartments, thicker being only the outer ones, in this case on the building short sides. Or, the basilica width is much smaller compared to other basilicas from forts⁷⁸², therefore the roof weight would have been carried by these 0.70 m thick walls as well, even though *basilica* exceeded, theoretically, the height of other parts of the construction and the greatest stress for the roof support was carried by the basilica long walls. In fact, in the northern part it was the front wall of the rooms in the back. As proof, the wall was reinforced by compartments behind it.

In the eastern part of the basilica traces of a poorly made wall, deemed *tribunal* by the excavators were identified⁷⁸³. Nonetheless, the *tribunal* does not seem to connect with the eastern outer wall of the headquarters building, as it would have been normal, but the perpendicular wall runs southwards from less than 1.00 m (?) of respective wall and seems to corner with another wall running east-west. Straight traces for access into the tribunal were not identified here either.

Back rooms. Two rooms each, sized approximately 3.50×5.50 m were set on both sides of the *aedes*. An *opus signinum* floor was noticed only in the one east of *aedes* and that in the north-western corner⁷⁸⁴. It is odd that the the last two rooms west of *aedes* were separated by a brick wall for unknown reasons, since other brick constructions did not seem to have existed at Cigmău. It is more interesting that farther west, another similar wall parallel to the first existed, thus creating an area of 3.50×1.50 m in the western limit of the building. Its similarity with the first mentioned, proves it was a common partitioning wall. However, which could be the reason for this compartmenting? In the case of the space from the south-east opposite corner of the building, I suppose it functioned as hallway, without being able to specify whether it provided also upstairs access, but it definitely eased passage to the two adjoining rooms. In the case of the small room in the north-west corner, this was invalid simply because it was the last partition in of the back rooms row, while the design of a hallway to reach the eastern room was unpractical and useless. Or, if it was intended to create an intermediary access space, the Romans would have placed it between the two rooms on the western side, their inner sizes remaining the same. I do not agree that this space corresponded to those *excubitoria* of the *aedes* guards, yet if this was the case, this tiny guard room would have been closer to the *aedes*. For such reasons, I believe this space was used for access to a storey. The Roman's decision to create overlaps in the front of the eastern half and in the western half of the back rooms is interesting. The space from upstairs might have covered all

⁷⁸¹ Obviously by mistake CCA 2004 (2005) no. 105 records the 65×32.5 m sizes.

⁷⁸² See comparative sizes from forts in Britannia where basilica widths frame within 7.00–9.00 m, Taylor 2000, Tab. 3.

⁷⁸³ We do not understand the significance of this wall definition as 'support for an *over-tight* timber floor' (CCA 2004 (2005), no. 105), yet the archaeologists may be right on the assignment made.

⁷⁸⁴ CCA 2004 (2005), no. 105.

rooms, access being in this case rather difficult. It is hard to explain why the Romans needed additional storey, since the headquarters building was considerably sized.

The excavators are also deserving for having discovered the room under the *aedes*, rarely identified in the forts from Dacia⁷⁸⁵. It was sized 2.00 × 4.00 m (8.00 m²) framing within the upper limit of surfaces such rooms occupied⁷⁸⁶. Access to the underground room was made by a staircase comprising five stone stairs placed by the western end of *aedes*⁷⁸⁷.

Somewhere behind the headquarters building, aerial photographs identified a building which may be deemed *praetorium*, yet its plan is difficult to restore⁷⁸⁸. This structure axis is displaced by c. 15.00 m westwards from the north-south axis of the headquarters building. Finally, the photos only outline two long and narrow structures running east-west, the space between them being occupied by another similar construction. Their c. 40.00 × 7/8.00 m sizes seem appropriate to barracks or stables rather than the commander's quarters.

Horrea

The excavations in the fort at Cigmău identified two storehouses places west of the headquarters building (fig. 26)⁷⁸⁹. These structures are not perfectly parallel with the headquarters building, the north-east corner of the first *horreum* being at c. 8.00 m distance from the opposite corner of the headquarters building, while the south-east corner of the granary is at only 5.00 m from the headquarters building. Almost adjacent to the first *horreum* follows the second, running this time parallel to the first. Proportions between the two sides of the granary in the western vicinity of the headquarters building are of 1.65 : 1.00, rather large for a *horreum*, being of 29 (north-south) × 17.50 (east-west) (507.5 m²), with almost double width compared to a normal *horreum*. Or, double *horrea* are often found especially in Britannia, like the case at Hardknott, Templeborough, South Shields, Housesteads, Benwell or High Rochester⁷⁹⁰. The difference between them and the one at Cigmău is that in the case of the latter, no compartmenting was noticed. The wall foundation, 0.60 m deep, is made of cobbles mixed with mortar, while the elevation is made of tufa⁷⁹¹. Exterior buttresses measure 1 × 0.50/0.60 m, being placed at c. 2.50 × 4.00 m one from the other. Considering the granary sizes, this distance is relatively extended compared to 1.50–3 m found in general, yet the building walls seem thicker than the headquarters building exterior walls measuring 1.20 m, therefore thick enough to carry the roof. This conclusion is emphasized by the plan of the second granary which, much narrower than the first, had a lighter roof. Buttresses placed at unusual large distances of 6/7 m prove that walls were thick enough to support the roof.

Since 'buttresses' were identified in the interior of the eastern side⁷⁹², a heightened floor might have indeed been in place, on the so-called buttresses as proven by their very large lengths of 1.20 m. In fact, archaeologists supposed the existence of such heightened floor. It was stated that 'a level of same tufa which probably carried the floor bolsters, also allowed the

⁷⁸⁵ CCA 2004 (2005), no. 105.

⁷⁸⁶ Bidwell, Speak 1994, Table 3.2.

⁷⁸⁷ CCA 2004 (2005), no. 105.

⁷⁸⁸ Hanson, Oltean 2003.

⁷⁸⁹ CCA 2004 (2005), no. 105, 132.

⁷⁹⁰ At least one wall or pillars for longitudinal support existed by mid storehouse, Gentry 1976, 7. Sizes of the storehouse at Cigmău are rather large, yet no larger than the double granary of 42.70 × 18.30 m from Benwell, Taylor 2000, Table 5.

⁷⁹¹ CCA 2004 (2005), no. 105.

⁷⁹² CCA 2004 (2005), no. 105, 132.

necessary vent of the room' was noticed inside the storehouse⁷⁹³. Obviously, either small walls or floor-carrying pillars were made of such tufa.

The second *horreum*, located in the near vicinity of the first, is sized 28.50 (north-south) × 10.50 (east-west) m (299.25), of c. 2.7 : 1 proportion. This time, the construction is typical both as plan and sizes. It does structurally differ from the first, yet it is much narrower and inside, on the longitudinal axis, posts for floor support placed at intervals of c. 0.80 m one from the other were noticed⁷⁹⁴. In front of them, a series of buttresses sized 1.20 × 0.60 m were attached, which, proven their length, were also designed to carry the floor. Regarding ventilation made by under the floor, a single interruption somewhere by mid western wall of the granary may be observed in plan.

Horrea from the fort at Cigmău occupy an unusually large total surface of 806.75 m², although fort sizes are also very large.

Another wall of 0.90 m wide, made of quarry stone bound with mortar was noticed in 2004 at 10.75 m east of the headquarters building⁷⁹⁵. It was considered the western limit of another *horreum*, whose width was of c. 12.75 m⁷⁹⁶. I believe it is hard to establish the functionality of this room, since the identified walls might not represent the outer limits of a building. Besides, the 'massive floor... of gravel and mortar'⁷⁹⁷ is not indicative of a *horreum*, whose floor is almost always suspended. Additionally, another *horreum* at Cigmău is difficult to explain, since evidently enough storage space was provided by the two mentioned *horrea*.

During all excavation campaigns, burn traces or even traces of timber posts were noticed, without specifying other planimetries or technical details⁷⁹⁸.

Troop

The troop attested by a series of tile stamps and inscriptions in the fort at Cigmău consists of *pedites Britannici*. The unit is mentioned in the diploma from AD 103/107 (CIL XVI 54) issued for the troops in Moesia Superior and then in Dacia within the two diplomas from AD 110⁷⁹⁹, in Dacia Superior within the diploma of AD 157 (CIL XVI 107 = IDR I 15) and that of 179 (RMD 123)⁸⁰⁰. All diplomas mention them as *pedites* and the majority record them as *singulares*⁸⁰¹. Probably that Illyrian soldier of *ala I Batavorum, ex n(umero) sing(ularium)* (CIL III 7800 = IDR III/5, 522) was possibly one of the *pedites* at Cigmău⁸⁰².

The troop is also attested by a series of tile stamps discovered still at Cigmău, displaying the abbreviations NB, NSB, NPS, SPB or NBC⁸⁰³.

⁷⁹³ CCA 2004 (2005), no. 105.

⁷⁹⁴ CCA 2004 (2005), no. 105.

⁷⁹⁵ CCA 2004 (2005), no. 105.

⁷⁹⁶ The building width is initially considered of 12.75, and following digs by trenches north of the first trench of 2004, of 10.60, CCA 2004 (2005), no. 105. The excavators believe it is a *horreum*, probably due to buttresses, yet their precise location is not clear to us.

⁷⁹⁷ CCA 2004 (2005), no. 105.

⁷⁹⁸ See for instance last research in the fort, CCA 2004 (2005), no. 105.

⁷⁹⁹ CIL XVI 57 = IDR I 2; CIL XVI 163 = IDR I 3.

⁸⁰⁰ See also Piso, Benea 1984.

⁸⁰¹ Except for the diploma of July the 2nd, 110 (CIL XVI 163 = IDR I 3).

⁸⁰² C. C. Petolescu recognizes in this *numerus* those *equites singulares* (personnal guard of the legates), although no inscription or stamp mention them as *numerus*. For evidence on such guards see Petolescu 2002, 145–6.

⁸⁰³ CIL III 1633,14; CIL III 8075, 32; IDR III/3, 227; Szilágyi 1946, 57, pl. XVIII, no. 275.

The slow evolution towards a *numerus* is proven by the troop title within the diploma from AD 179 recording it as *vexillatio peditum singular(ium) Brittanicianorum*⁸⁰⁴ and ends immediately after, in AD 186, when one inscription dedicated to the Nymphae records it as *numerus*⁸⁰⁵. The troop was probably *milliaria* as the altars dedicated by two troop tribunes to the Nymphae at Germisara seem to show⁸⁰⁶. In fact, the sizes of the fortification at Cigmău emphasize such a theory, the garrison being even insufficient to occupy the entire fort, yet its entire internal planning is unknown and free spaces probably existed, like for instance in the fort at Ellingen, where the fort garrison comprised, coincidentally, *pedites singulares* of Raetia⁸⁰⁷.

The last record on the troop in the fort at Cigmău is an altar dedicated to Philip Arabs recording them as *n(umerus) sing(ulariorum) Brit(annicianorum) Philippiani*⁸⁰⁸.

21. One of the few *alae* from Dacia, *ala I Bosporanorum*, is present in the **CRISTEȘTI** area, fort on which we have no certain information. The cavalry troop is attested for the first time by mid 1st century AD in Syria⁸⁰⁹ and subsequently in Moesia⁸¹⁰. Later, after AD 100 the unit seems to have been quartered at Odiavum, in Pannonia⁸¹¹, being then mentioned in the diplomas of Pannonia Superior of AD 112, 113 and 116⁸¹². It is possible that the troop was transferred in Dacia immediately after AD 118/9⁸¹³. The troop is definitely present in Dacia starting with Hadrian's reign, being evidenced for the first time in AD 136/8⁸¹⁴ and then in 144, 157, 158 and 179⁸¹⁵. In Dacia Superior the unit is firstly attested at Micia by a few inscriptions mentioning two *praefecti* of the troop⁸¹⁶ and at Germisara where a decurion is referenced⁸¹⁷. For this reason it was supposed that the troop was initially stationed at Micia⁸¹⁸, although the military effectives from Micia seems to have been established by the beginning of Hadrian's reign, the basic garrison being *ala Hispanorum*. Tile stamps of the troop were discovered only at Cristești⁸¹⁹. Based on a stamp here, the troop was considered *milliaria*⁸²⁰.

⁸⁰⁴ For the use of the term *vexillatio* see Speidel 1975, 219, 221–3. It is used to refer to the use of the term *numerus* for designating a detachment, subunit or even military unit, see Speidel 1977 with bibliography.

⁸⁰⁵ Gostar 1956, 69–77.

⁸⁰⁶ Piso, Rusu 1990, 16–7, no. 11 = AE 1992 1487. In the second case, the authors clearly confirm that this *numerus* consisted of 1000 soldiers, as shown by the iteration appearing after the mention C. Valerius Valentinus function *trib(unus) leg(ionis) XIII G(eminae) An[t(oniniana)] / item trib(unus) n(umeri) sing(ularium) Brittan[nicianorum ...]*, Piso, Pescaru, Pescaru 2004. Previous opinions argued these troops were regularly led by legionary centurions, see for instance Dietz 1983, 518. For *singulares* in general, see bibliography at Dietz 1983, 516 or Speidel 1978.

⁸⁰⁷ Czysz, Dietz, Fischer, Kellner 1995, 436–9, Abb. 130, 131 (reconstruction).

⁸⁰⁸ CIL III, 12573 = AE 1967, 411 = IDR III/1, 214. Fact which could mean that at some point, it was no longer the governor's guard, see Dietz 1983, 516–7.

⁸⁰⁹ CIL III 6707 = ILS 2510 = IGLS I 140 = AE 1922, 109.

⁸¹⁰ AE 1925, 70; CIL X 1258, Wagner 1938, 18 sqq; Beneš 1978, 6, no. 5.

⁸¹¹ Lőrincz 2001, 15, Kat. no. 54.

⁸¹² AE 1997, 1782; RMD 86; CIL XVI 64.

⁸¹³ Gudea, Zrinyi 1977, 224 sq; Piso, Benea 1984, 279.

⁸¹⁴ Petolescu, Corcheș 2002.

⁸¹⁵ CIL XVI, 90 = IDR I 14; CIL XVI 107 = IDR I 15; CIL XVI 108 = IDR I 16; RMD 123 = AE 1987, 843.

⁸¹⁶ CIL III, 1344 = IDR III/3, 76 (PME V 14); IDR III/3, 107 = AE 1930, 12 (PME C 186).

⁸¹⁷ CIL III 7888 = IDR III/3, 246.

⁸¹⁸ Gudea, Zrinyi 1977, 223–32; Piso, Benea 1984, 279

⁸¹⁹ Stamps are of ALIB, ALBOS, ALBOSPOR, AIBO, ALABO, ALEBOSPO type (CIL III 12630 = IDR III/4, 152–7), Gudea, Zrinyi 1977. In the case of the last stamp, a ∞ seems to have existed.

⁸²⁰ E. Birley argues that the troop did not become necessarily *milliaria* prior the 3rd century, without disputing its change, Birley 1966, 56. See also Gudea, Zrinyi 1977, 226. Yet, see *contra* Russu 1972, 65–6; Piso, Benea 1984, 279.

Another inscription attesting a *praefectus* of the troop was found still at Cristești⁸²¹. The diploma from AD 158, whose holder was in fact a former knight of the troop, was lost at Cristești as well. Thereafter, I believe that this *ala* was stationed at Cristești from the very beginning. In Dacia the troop is attested, conversely to other provinces, under the form *Gallorum et Bosporanorum*, being probable that Gall detachments were attached once with the troop transfer to Dacia. The single diploma wherein return is made to the previous title is that of AD 179, therefore, probably at least the inscriptions above mentioned, which did not record the *Gallorum* ethnicon, may be dated after AD 158, yet *ala Hispanorum* is present at Micia including in the 3rd century AD (see *supra*), hence it is hard to suppose the troop displacement from Cristești to Micia⁸²².

22. DROBETA

The fort at Drobeta (pl. 19) was evidently constructed in order to protect a vital strategic area, being located by the eastern limit of the Mehedinți Mountain Chain, wherefrom the Danube lowlands begin. The fortification was erected close to the Roman bridge over the Danube, on a high plateau of almost 20 m level difference.

The plan of the fort at Drobeta is undoubtedly the best known from entire Dacia Superior, if not from entire Dacia. Nonetheless, the perfect symmetry, practically the western half of the fort is the mirror copy of the eastern one, may seem odd, as no analogy could be found. Cases when *praetentura* or *retentura sinistra* are identical with *praetentura* or *retentura dextra* are rare, yet even rarer are cases when in *latus dextrum*, respectively in *latus sinistrum*, constructions are identical as plan. Obviously, numerous changes in the Drobeta fort hampered archaeological research, hence I am sure that the analysis of the buildings inside the fort must be very cautious.

First archaeological research were carried out by Cezar Bolliac, then by G. Boissière who identified for the first time several phases of the fort: Trajanic, Constantinian and Byzantine⁸²³. Subsequently, between 1896–1899, Gr. G. Tocilescu and then Al. Bărcăcilă⁸²⁴ performed first systematic researches, the first publishing a plan and the discovered inscriptions. Gr. Florescu was the first who provided a coherent plan of the fort, following a single excavation campaign⁸²⁵. Gr. Florescu, R. Florescu and M. Davidescu diggings in the First World War aftermath revealed more occupation and repair phases than previously noticed, later phases constructions disturbing the area very much.

It is strange that all scholars dealing with the fort at Drobeta or with *coh. I Antiochensium* concluded that the troop erected the fortification, although the inscription on which such statements were based was fragmentary, recording partially the emperor's name and the troop title (IDR II 14 = AE 1959, 309) only⁸²⁶. It nevertheless proves that the troop constructed something important, if not the fort itself, probably one of the main buildings.

⁸²¹ IDR III/4, 135; AE 1912, 74; 1967, 402 (PME C 11). At Apulum, another inscription mentions a knight of the troop transferred from *numerus Illyricorum*, CIL III 1197 = IDR III/5, 585.

⁸²² Only in the case of one of the two *praefecti* a dating under Hadrian/Antoninus Pius is supposed, after PME V, 14.

⁸²³ For the history of research, see Tudor 1978, 274 with bibliography.

⁸²⁴ See Bărcăcilă 1932, Bărcăcilă 1938.

⁸²⁵ Florescu 1931. For discoveries at Drobeta see Florescu 1965; Florescu 1965a; Florescu 1967; Florescu 1970.

⁸²⁶ The inscription was read as follows: [*Imp(erator)*] *Caes(ar) di[vi Ner- / vae f(ilius)] Nerva Tra[ianus / Aug(ustus) Ger]m(anicus) Dacic(us) p[ont(ifex) / max(imus) trib(unicia)] potest(ate) co(n)s(ul) [p(ater) / p(atriciae) / ... per co]h(ortem) I Antio[ch(ensium)]...*], without being certain that respective troop erected the fort at Drobeta.

Via sagularis is 2.50 m wide, made of 10 cm thick gravel layer⁸²⁷. *Via praetoria* and *via principalis* are 5.75 m wide and flanked by a portico. It consisted of 70 × 70 cm bases placed at 3.00 m distance one from the other, the portico depth being of 3.20 m. A series of chapters, stone posts and marble statues fragments were discovered in the area, thus pointing to a portico with statues. I am not sure to what extent this phenomenon is characteristic to *via principalis*, as this area seems to be the single one researched⁸²⁸. *Via decumana* is rather narrow and has no flanking portico, while *via quintana* is almost inexistent. The consistency of the roads is unexpectedly precarious, D. Tudor arguing they were made from a gravel layer of only 10–15 cm thickness⁸²⁹.

Via quintana does not seem to have existed or, besides, the structures behind the headquarters building are too close to the constructions from *latus*, thus the two buildings oriented *per scamna* north of the headquarters building appear to be part from *latus*. In exchange, the distance between these structures and the barracks in their north is rather large, adequate to even a *via quintana*.

Principia

The headquarters building (fig. 27) is stone-made in the known phase, has classical plan, occupying 6.34% of the fort total surface, the ratio length/width being of almost 1 : 1.

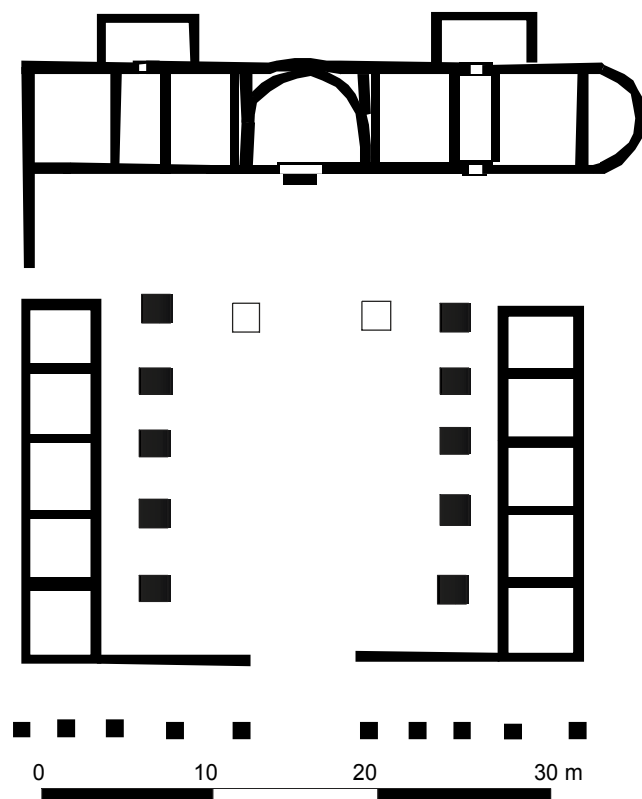


Fig. 27

The entrance does not seem to be made by a *tetrapylon*, as not even a portico existed in this courtyard part, but by a 5.90 m opening in the front wall of the headquarters building. Thus, the span becomes unusually large. Such simple openings only in the front wall of similar buildings from Britannia forts are of c. 2.50 m. In case a portico existed also along *via principalis*, a monumental entrance was probably no longer required. An entrance in obvious direct connection with the portico in front was possible, with a gable roof, slightly higher and perpendicular on the portico roof, carried by the two column bases in front of the entrance. They seem to be larger than column bases from the rest of the ambulatory⁸³⁰. In case in front of the headquarters building, a *basilica exercitatoria* (see *infra*) was located then clearly, a much elevated entrance was not further required.

⁸²⁷ Tudor 1978, 276.

⁸²⁸ In plan, only column bases from this area were smut (Tudor 1978, Fig. 73), hence I don't know how certain is this portico along *via praetoria* as well.

⁸²⁹ Tudor 1978, 276.

⁸³⁰ A similar, yet much more complex entrance, may be seen in the reconstruction of the headquarters building at Xanten, Horn 2002, Abb. 70.

The inner courtyard is flanked by two side porticoes. Nonetheless, the open space occupied 427.50 m², hence 39% of the total surface of the headquarters building, whilst the usual percentage was of 25%. The courtyard was paved on its entire surface⁸³¹. It was surrounded on the eastern and western sides by five rooms each, equally sized of c. 3.30 × 3.35 and identified as *armamentaria*. Their interpretation as *armamentaria* of the fort is uncertain, especially since we have no information on the discoveries inside them. I am not sure to which entrance makes D. Tudor reference, who maintains, upon the inner courtyard description that ‘an enormous blocks base, designed for an equestrian statue is noticeable by the entrance’⁸³². It might have existed somewhere in the courtyard border or even in its middle, alike Roman forums⁸³³. D. Tudor and C. M. Vlădescu decided a storey existed over the rooms in the courtyard sides, providing no indication on their assumption⁸³⁴.

Access to the **basilica** was made by three arched-entrances supported by the bases identified in northern courtyard and by the ones by the northern ends of the portico surrounding the courtyard. The four column bases which carried the entrance arches were 1.40 × 1.40 m, while the column diameter was 0.70 m⁸³⁵, therefore extremely solid to support a high superstructure, even without internal prop. The structure occupies 15% of the stretched surface of the headquarters building, being probably provided with a *tribunal* on its eastern side, sized 5.00 × 6.00 m⁸³⁶. The latter was not by mid short eastern side of the basilica, but adjacent to the room from the eastern limit of the back compartments row corresponding to the strongroom, its eastern limit being the building outer wall itself. The reason for which the tribunal was set this fashion is the result of placing a 2.35 m wide entrance on this side, between the courtyard and the basilica southern limit. Similar entrance on same location was found on the opposite side⁸³⁷.

Back rooms. The *aedes* provided with apse and heightened floor, which was reached by way of a few stairs, was located by mid side. There isn’t any indication that another room existed under the *aedes*, as one would have expected, or to the constructional technique of the walls. Other two, equally-sized rooms flank the central room, yet their surface is not specified. Onwards, one may notice two narrower compartments and behind them other two rooms, the one in the east being attached an apse. If the normally-sized rooms require no explanation, the function of the two ‘hallways’ located on both sides of the *aedes*, between the secondary rooms, clarification is needed. Such compartmenting might have theoretically provided access to the adjoined rooms, probably access to a storey or functioned as *excubitoria*. Another peculiarity of the rooms in the back from Drobeta fort is the attachment, by their short northern ends, opposite to the entrance, of spaces as long and narrow as proper hallways (?)⁸³⁸. It is

⁸³¹ After Vlădescu 1986, 15

⁸³² Tudor 1978, 277. C. M. Vlădescu states it is brick made and 0.40 m high, quoting Bărcăcilă 1932.

⁸³³ See for instance Trajan’s statue base in the middle of the forum from Ulpia Traiana Sarmizegetusa (Etienne, Piso, Diaconescu 2004, 131 sqq) similar to the *quadriga* statue in Trajan’s Forum from Rome.

⁸³⁴ Tudor 1978, 277; Vlădescu 1986, 14.

⁸³⁵ Tudor 1978, 277.

⁸³⁶ D. Tudor characterised the structure as a later room, Tudor 1978, 277. Tribunals structure is almost constantly of poor quality compared to the neighbouring rooms or the outer wall of the enclosure, hence D. Tudor probably noticed accurately that the walls here were different structurally, yet it does not necessarily imply subsequent erection.

⁸³⁷ Entrances on both sides are usual for many forts of the Empire, see Johnson 1987, 129, Abb. 92, 99 (the forts at Lambaesis and Chester).

⁸³⁸ As resulted from plan, see Tudor 1978. Fig.73.

certain that the hallway in the eastern half of the headquarters building gave access to neighbouring rooms as the room in the headquarters building eastern extremity had no access from any other part, towards *basilica* having a common wall with the tribunal. Correspondingly, one may suppose that the similar hallway in the west part fulfilled same aim. Nonetheless, the reason that the annexes were constructed in the northern part of the building, also reached by the mentioned hallways remains to be explained. Most likely, upon their sizes, they might have sheltered the staircase to a storey. However, to be certain, the excavations should have identified the staircase base, the single case when a storey was positively identified, at least over part of the back rooms being that of the fort at Housesteads⁸³⁹. Inconveniently, such access stairs were often timber-made, hence, almost impossible to identify by excavation.

The distance between column bases forming the portico bordering *via principalis* seems much reduced compared to the distance between the other bases, appearing even crowded⁸⁴⁰. This distance reduction might have been required for the support of a more solid superstructure placed in front of the entrance into the headquarters building. It could have been identical with *basilica exercitatoria* known from analogies with other forts of the Empire and evidenced by inscriptions. In fact, even the entrance wall into the headquarters building had a very large span and lacked the portico inside and it might have been the outer northern wall of the drill hall. A portico similar to that of Drobeta, extending on the entire length of *via principalis*, by its mid in front of the headquarters building and also over *via principalis*, forming a *basilica*, is found in the fort at Künzing⁸⁴¹.

Praetorium

In the fort central part, *horrea* are placed on both sides of the headquarters building (fig. 28) (see *infra*), and other two buildings, identical in plan and almost similar sizes are noticeable behind these store houses. They are surfaced 23.80 × 14.80 m (352.24 m²) (*latus dextrum*), respectively 23.80 × 18.50 m (440.30 m²) (*latus sinistrum*). Their plan is classical consisting of a central courtyard, of 8.00–9.00 m wide, surrounded on three sides by a series of rooms in the back being four, five rooms on one side and other four on the other side. Nonetheless, the plan of the structures from Drobeta is only apparently similar to *praetoria*, as the latter, civil houses by excellence, observe the plan of the Mediterranean-type house and usually of the ‘peristyle house’ with central courtyard flanked on all sides by rooms, some having evidently a much more complex planimetry⁸⁴².

The excavators from Drobeta characterise the two structures near *horrea* as officers and subordinates houses⁸⁴³. Since other buildings that could have been deemed *praetorium* were not found within the entirely researched fort at Drobeta, the authors of the research could be right, irrespective of all deficiencies of the buildings plans. In fact, being private dwellings, such constructions tend to have most flexible plans⁸⁴⁴. A planimetry almost identical with the buildings from Drobeta was noticed to a structure from *latus sinistrum* in close

⁸³⁹ Bidwell, Speak 1994, 74

⁸⁴⁰ See plan in Tudor 1978, Fig. 73.

⁸⁴¹ Schönberger 1975, Abb. 4.

⁸⁴² For a series of buildings plans, see Johnson 1987, 153–4, Abb. 101.

⁸⁴³ See in Tudor 1978, 277.

⁸⁴⁴ At Housesteads a L-shaped *praetorium* initially existed (Johnson 1987, 156), while at Vindolanda an initial U-shaped one (Birley, Blake, Birley 1997, Fig. 17), both changing into peristyle-house type plans.

vicinity of the headquarters building from the fort at Hofheim, being considered, for lack of clear evidence, either accommodation for the commander of certain vexillations, or hospital or store house⁸⁴⁵. Significantly, its identification with a *praetorium* was excluded, since a building with a very complex plan discovered in *latus dextrum* definitely fulfilled such function.

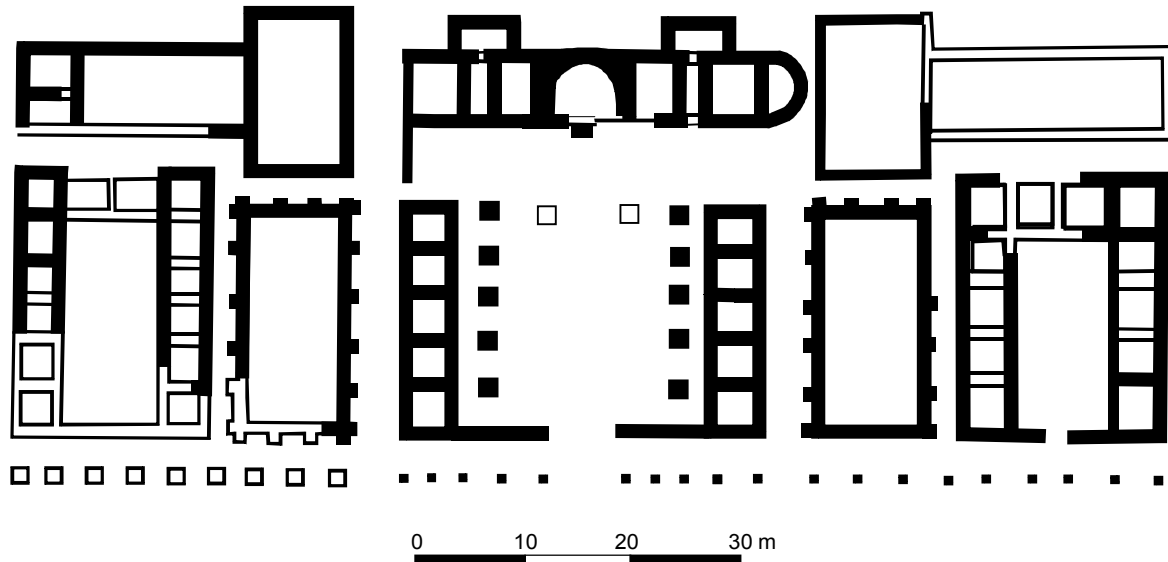


Fig. 28

One of the buildings from Drobeta occupies c. 3% of the fort total surface, the length/width ratio being c. 1.50. Access into the two buildings was made from *via principalis* by the portico whose shed roof was carried by the front wall of the rooms neighbouring *via principalis* and extended southwards, being carried by afferent poles forming the ambulatory.

These buildings location is also relatively unusual, although analogies were identified. Or, where other buildings existed in the part from *latus* where the commander's quarters was set, the forts were larger⁸⁴⁶, which is not the case at Drobeta. Even though the commander's quarters are not always in the central part of the fortification, they are positioned behind the headquarters building, being almost always in its close vicinity, with few exceptions when the officer's house was set in *praetentura*⁸⁴⁷.

On the other hand, the buildings sizes are not usual either, the surfaces minimum being c. 750–800 m²⁸⁴⁸. In Drobeta's case, both buildings occupy a surface of 792.54 m², thus fairly normal, yet it is impossible that same commander dwelled them concurrently. If the commander's house mirror the officer's rank⁸⁴⁹, then at Drobeta he might not have been famous.

Where more than two troops are attested within a fort, there is usually a single commander's quarters⁸⁵⁰. For two *praetoria* within forts, evidence is little convincing,

⁸⁴⁵ The construction has three rooms in the back and four on both sides of the courtyard and a series of deep wholes (cellars) inside certain rooms, Baatz, Herrmann 1982, 354, Abb. 297; Nuber 1986, 228, Abb. 1.

⁸⁴⁶ A *praetorium* is located in *latus praetorii dextrum*, behind a *horreum*, in the forts at Mumrills, Balmuildy or Birrens, Johnson 1987, Abb. 205, 206, 208.

⁸⁴⁷ See Johnson 1987, 159.

⁸⁴⁸ See arguments in Snape, Bidwell 1994, 269.

⁸⁴⁹ Johnson 1987, 161.

⁸⁵⁰ See for instance the case of the entirely researched fort at Strageath, Britannia, Frere, Wilkes 1989. It is true that there are forts where the use of the headquarters building by two troops seems obvious, an inscription from Niederbieber recording that the western side of the headquarters building was used by

although there are fortifications where more than one building with central courtyard surrounded by rooms existed at the same time, yet they might have had other functions⁸⁵¹.

Horrea

Two *horrea* (fig. 28) sized identically, 23.00 × 12.00 m (276.00 m²), were identified aligned with the rest of the buildings north from *via principalis*, on both sides of the headquarters building, each lying on c. 1.6% of the fort total surface⁸⁵². It results that they occupy a total surface of 506 m² and a rather large percentage of over 3%⁸⁵³ explicable by the Drobeta fort position, harbour by the Danube and implicitly a probable supply base. In one of the occupation phases from the fort at Strageath, *horrea* occupy 3.7% of the fort surface and therefore were related to the campaigns of Agricola in Scotland⁸⁵⁴.

The location of these *horrea* within the fort is rather unusual, since another two buildings lie between them and the *intervallum* area. Frequently, *horrea* are erected in close vicinity to the gates, for easy access. Both *horrea* were provided with buttresses to the exterior of almost all walls, four on the short and six on the long sides. Exceptions are the front wall of the store house from *latus*, which had not buttress and the eastern wall of the same store house, which lacks the last two buttresses along the wall, the remaining four being placed symmetrically with the ones in the opposite side.

No wall breaches were observed, consequently one may suppose that entrance into *horrea* was made from their short sides, as customarily⁸⁵⁵, although the distance between these buildings and the surrounding ones seems to be little⁸⁵⁶. In fact, this is confirmed by the store house with no buttresses against the short side from *via principalis*.

The interior of the constructions is characteristic to other structures of same functionality, being undivided, and especially to other *horrea* from Dacia, where no traces of usually heightened floor, posts, pillars or floor supporting walls were signalled⁸⁵⁷.

Barracks

Barracks (fig. 29) with relatively clear plans are found in pairs on both sides of *via praetoria*, oriented *per scamna*, with the officer's room projected outwards (south). Dimensions of almost 350 m² frame within the maximum concentration percentage found with auxiliary forts⁸⁵⁸, yet the buildings partitioning is different. Barracks flanking *via principalis* are practically placed in mirror alike all the other constructions from the fort at

numerus Divitiensium, while the eastern by *numerus Brittonum*, see for other several examples Johnson 1987, 139. In Britannia, beside the usual *praetoria*, buildings resembling a *praetorium* were identified in *praetentura dextra* of the fort at Hod Hill and in *praetentura sinistra* of the fort at The Lunt, Baginton, see Johnson 1987, 160–1.

⁸⁵¹ See briefly Johnson 1987, 160–1.

⁸⁵² It is certain that the structures noticed in the Column scene quoted by D. Tudor (Tudor 1978, 277, Fig. 7.1) as clearly proving the two *horrea* in the fort at Drobeta, has nothing to do with the buildings from *latus* since the fort corner is depicted, without being certain if it was that of Drobeta. It might have been a fortification on the other Danube bank.

⁸⁵³ The usual surface of the store houses represented c. 1.5–2.00% of the total fort, Gentry 1976, 27, Tab. 1, 2.

⁸⁵⁴ After Frere, Wilkes 1989, 123

⁸⁵⁵ Johnson 1987, 171.

⁸⁵⁶ The largest interval, of only 5.00 m, seems to be between these buildings and *principia*, Tudor 1978, 277.

⁸⁵⁷ Johnson 1987, 164–5.

⁸⁵⁸ Davison 1989, 7, 80.

Drobeta. One barrack from *praetentura sinistra*, respectively *dextra* is divided, as expected, into ten *contubernia*, while the other two are compartmented into five *contubernia*, the last non-separated upon *papiliones* and *arma*.

Also, the officer's rooms projection is rather curiously—southwards—oriented to all barracks. Habitually, officers' rooms are, according to legionary barracks, oriented either back-to-back in the case of double barracks or facing each other in the case of individual barracks and rarely like in the *praetentura* of the fort at Drobeta. The different compartmenting fashion of the barracks is inexplicable, as only two of the six buildings whose plans resemble the structures aimed at accommodating soldiers are partitioned like a common barracks. The two are from *praetentura* in the close vicinity of gate *praetoria*. They belong to type A described by D. Davison as the most common within the Empire⁸⁵⁹.

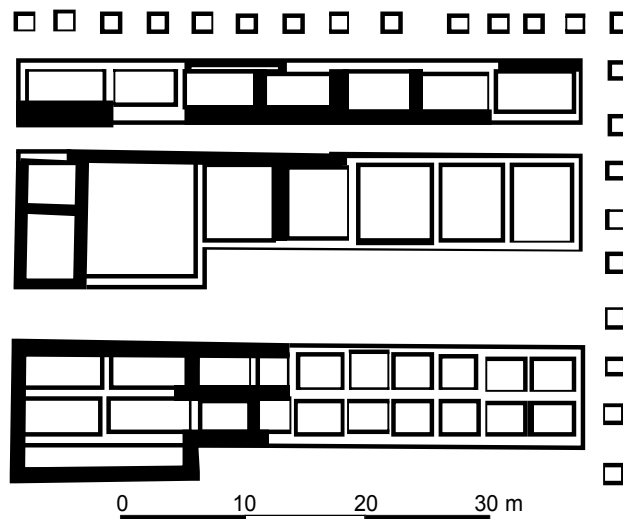


Fig. 29

In both cases there are eight *contubernia*, whose sizes are unknown, the ones in the close vicinity to the officer's room being larger⁸⁶⁰. The officer's room is sized⁸⁶¹ c. 13.00 × 10.00 m (130 m²) and is located by the ends of *via sagularis*, while the *contubernia* rows are of c. 30.00 × 8.00 m (240.00 m²). As such, the officer benefited of 35% surface of each of the two barracks near *porta praetoria*, high percentage comparable to those found in the forts from Britannia during the Flavian and Antoninian periods⁸⁶². The space occupied by officers in the barracks from *praetentura dextra* is divided into five compartments, the northern one, in extension of the barracks verandah, being based on its sizes, only a hallway, the others being of equal sizes. Within the barracks from *praetentura sinistra* the surface occupied by the officer was partitioned into six rooms of approximately equal sizes.

The following A type barracks from *praetentura sinistra* and *dextra* south of the first, placed also *per scamna*, were divided as mentioned into five (*praetentura dextra*), respectively four rooms (*praetentura sinistra*). These compartments did not seem to be subdivided, the surface being yet almost identical with the barracks described above. Considering the c. 9.00 × 9.00 m dimensions of each division, I believe that the described rooms must have been formed in fact of several rooms, evidently similar to those identified in the barracks south of them. Regarding the barracks located in *praetentura sinistra*, the space designed for officers occupies the same surface as those similar from the above described barracks, yet the compartmenting is different. Thus, in *contubernia* (?) extension a space of c. 9.00 × 9.00 m formed, and being it another space subdivided into two sectors⁸⁶³. The first seems to be of c. 9.00 × 4.00 m, while

⁸⁵⁹ Davison 1989, Fig. A.

⁸⁶⁰ For various functions such *contubernia* fulfilled, see Davison 1989, *passim*.

⁸⁶¹ The buildings surface was measured based usually on the plan provided in Tudor 1978, Fig. 73. These data are relative, depending on the accuracy and precision of the fort plan.

⁸⁶² The percentage was usually of 20–29%, Davison 1989, 92.

⁸⁶³ We should not forget that in Britannia, for instance, many of the spaces designed for centurions or decurions total only c. 9.00 × 9.00 m, even smaller values in the forts on Hadrian's Wall, after Davison 1989, 85.

the other is divided again in two spaces of c. 9.00 m lengths and smaller widths. Other two transversal subdivisions of very small sizes as well, were set in the verandah extension. It is hard to decide on the functions of these partitions, the largest being probably designed for living, yet such dwelling comprised kitchens, small stables, latrines, etc. Similarly to this barracks, on the other part of *via praetoria* was located a barrack with an almost mirrored planimetry. The officer's space was compartmented into three parts, the first and largest division was square and measures c. 10.00 × 10.00 m (100.00 m²) and the other, c. 4.00 × 4.00 m and 3.00 × 3.00 m, thus resulting again a c. 125–130 m² surface. As such, the officer benefited of c. 35% of the building surface. The reason for which only five *contubernia* were identified requires elucidation, this time each being c. 6.00 × 5.00 m, reduced in size compared to the previous barracks. Although smaller spaces are under discussion, it may be supposed that each of the compartments was partitioned into four divisions, probably of inequal dimensions, in order to create enough space in *papilio*.

Other two barracks sized c. 46.00 × 9.00 m (414 m²) also having the officer's rooms projecting southwards were flanking *via decumana*, oriented *per scamna* and compartmented into five *contubernia*. These *contubernia* seem to have similar sizes to those of the barracks from *praetentura* described above, so they could have been divided in four compartments, resulting a total of 10 *contubernia*. Nonetheless, in the barracks from *retentura dextra* the space closer in size to the officer's room is almost half the other widths, while a similar room is found also in the barracks from *retentura sinistra*, located in the opposite end of the officer's room. I suppose that these two narrower spaces represent in fact the normal width of *contubernia*, the other being divided in two transversal spaces per barracks, resulting a total number of nine *contubernia*. These buildings are, as it may be noticed, simple barracks, yet the soldiers dwelling areas seem to be slightly wider and longer (by c. 7.00 m) compared to the correspondents from *praetentura*, therefore the rooms designed for soldiers dwelling become more spacious compared to those from *praetentura*. This phenomenon is the direct result of the surface reduction occupied by the officers' rooms. No compartments were noticed inside them and have normal sizes of c. 10.00 × 10.00 m (100 m²). In fact, comparative to other forts, they occupy 25% of the entire surface of the barracks⁸⁶⁴.

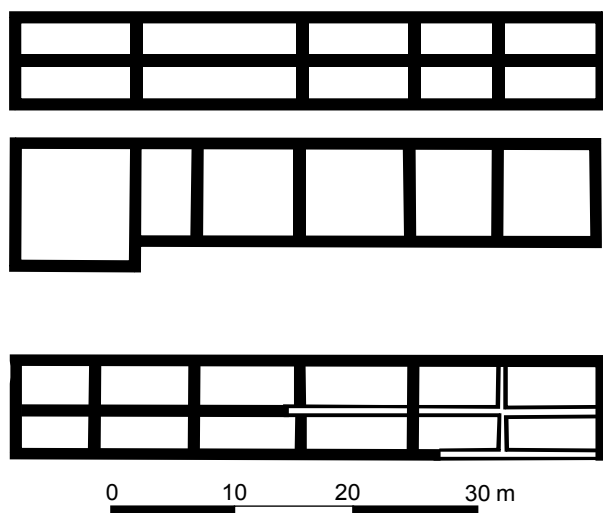


Fig. 30

The structures from *retentura* (fig. 30) on both sides of gate *decumana*, north of the above mentioned rooms, have c. 46.00 × 7,00 m (322 m²) sized barracks, yet the officers' rooms are not projecting outwards like in the other cases. They are divided only into inequal five (*latus dextrum*), respectively six compartments (*latus sinistrum*), each compartment being divided, like the *contubernia*, into two parts of equal surfaces.

The buildings resemble thus to a B type barrack⁸⁶⁵, although not all compartments were identified. The officer's rooms have lengths similar to those from the barrack

⁸⁶⁴ Davison 1989, 85.

⁸⁶⁵ Davison 1989, Fig. A.

placed behind them, yet are not outwards projected, being compartmented longitudinally in two equal spaces. Their approximate sizes are of 10.00 × 7.00 m, thus occupying slightly over 20% of the barracks surface.

Other two structures somewhat similar to those described above are also placed in *retentura*, behind the buildings from *latus*, however, if they are barracks, then the space designed for officers, located towards *via sagularis* as well, is partitioned into four subdivisions relatively equal in size. Should one disregard the officer's room, other four, respectively five almost equally sized compartments were identified. Precisely due to such sizes, one should admit the existence of other compartments, probably being nine *contubernia*.

Although we would expect a veranda to the barracks with the officers' rooms outward projecting, such structures were not identified at Drobeta⁸⁶⁶.

To conclude, the fort at Drobeta probably comprised a total of ten barracks, adequate number for quartering a *milliaria peditata* troop. Without taking into account minor differences between the barracks located in *praetentura*, three barrack types were identified⁸⁶⁷. Two barracks, with the officers' room projected as much as the veranda are in fact type A, while the other two are similar to types B or J in D. Davison's organization⁸⁶⁸. Which is though the explanation for barracks differentiation? Often, differences between the barracks planimetry within the same fort was explained as the result of mixed garrisons⁸⁶⁹. At Drobeta though, if there were different troops and if each troop would have had a certain barrack type, it would mean that three such troops had to exist, according to the number of distinct barrack types. On the other hand, within the forts where the officers' rooms by the end of the barracks are different in size, rank differences between officers were considered, and as such the decurion, for instance, would occupy a more comfortable space than the centurion, and as well, legionary centurions compared to those of auxiliary troops⁸⁷⁰. Hence, we would notice that where such rank differences existed, mirrored by the planimetry of the rooms by the barracks ends, *contubernia* occupied by legionaries would have been more comfortable than those of auxiliaries, while those designed for cavalry, more comfortable compared to those accommodating infantry. Yet, inside the fort at Drobeta the situation is confusing, as, where the officers' rooms are more spacious *contubernia* are smaller, while within the barracks from *retentura* where *contubernia* are rather large, the officer's room is limited. It does not necessarily depend on building sizes, those from *retentura* being slightly longer than those in *praetentura*. Finally, such length differences result from the missing portico along *via decumana*, which allowed extension by few meters of the structures in this area.

Other buildings

Constructions in the central area, behind the so-called commander's buildings, have a rather ambiguous shape in order to be deemed barracks, as they are too short and the officer's

⁸⁶⁶ Although this situation may seem odd, there are other examples of barracks of same type with no verandah, like those at Strageath (Flavian phase), Bar Hill and Gelligaer or other whose portico was destroyed, like the case at Newstead, Haltwistle Burn and Watercrook, Davison 1989, 75.

⁸⁶⁷ By barrack types I do not necessarily understand major differences in the barracks general plan, but also dimensional differences, like between the barracks from *praetentura* and those with the officer's rooms outwards projecting from *retentura*, even though they do not belong to the same type. Such elements are relevant for planimetric differentiation.

⁸⁶⁸ Davison 1989, Fig. A.

⁸⁶⁹ Davison 1989, 185 sqq.

⁸⁷⁰ Davison 1989, 9–11, 82–6.

rooms is projected on both sides, both northwards and southwards, a fact hard to interpret. Such officers' rooms, projected in both directions were identified in a few *ala* forts, yet barracks had normal sizes, the two spaces being designed for the two decurions commanding each a *turma*⁸⁷¹. Or, in the case of the buildings from Drobeta, accommodation of two *turmae* was impossible, hence the spaces by the ends were not meant for officers. In this case, without any analogies, single indication on the establishment of the building function would be provided by the discoveries inside, which unfortunately would remain unknown. The interpretation as store houses is uncertain⁸⁷².

The two extended buildings from *praetentura*, near *via principalis*, sized c. 45.00 × 4.00 m, partitioned in several equal compartments, could be store houses⁸⁷³, stables⁸⁷⁴ or even workshops. One would expect, as mentioned above, several storage areas, the use of such buildings for stabling is problematic, since the basic troops from Drobeta do not seem to be *equitatae*⁸⁷⁵. Another function could be of dwellings for *immunes*, a similar construction being found in the fort at Hofheim, yet in *retentura dextra*⁸⁷⁶. However, until further detailed archaeological excavations all is speculative.

Troops

Beside legionary detachments partaking civil works in the fort and bridge⁸⁷⁷ over the Danube, numerous at Drobeta, the basic troops are *coh. I Antiochensium*, *coh. III Campestris* and *coh. I sagittariorum*. At least the last two cohorts are *milliariae*, the fort at Drobeta, of only 1.69 ha, being therefore rather reduced to accommodate such garrison⁸⁷⁸. The first of the mentioned troops that stationed at Drobeta seems to be *coh. I Antiochensium*. The unit is mentioned only within the diplomas from Moesia Superior—starting with AD 78 until AD 161⁸⁷⁹, probably participating in the Dacian wars and the construction of Drobeta fort⁸⁸⁰, obviously beside legionaries.

One may suppose that in the 2nd century AD, the basic garrison of the fort at Drobeta was *coh. III Campestris*, a troop mentioned in the diplomas from Dacia as early as AD 109 and 110⁸⁸¹. The last diploma which records the troop also in the army of Dacia is from AD 179⁸⁸². Meanwhile, within the diplomas from AD 160 and 161⁸⁸³, the unit appears as part of the

⁸⁷¹ Type I to D. Davison, see Davison 1989, 73.

⁸⁷² Hassall 1983, 103.

⁸⁷³ Hassall 1983, 119; Frere, Wilkes 1989, 129.

⁸⁷⁴ Hassall 1983, 118.

⁸⁷⁵ Nevertheless, *coh. I sagittariorum* seems to be *equitata* during the 3rd century, IDR II, 10 where the troop is mentioned as *Philippiana milliaria equitata*.

⁸⁷⁶ A similar construction, yet comprising a verandah, was uncovered at Pen Llystyn, being deemed hospital, although inside metallurgical prints, i.e. fireplaces and crucibles were discovered, Nuber 1986, 228, n. 9, Abb. 1, 21. For other interpretation of these buildings function, see Johnson 1987, 212, Abb. 145.

⁸⁷⁷ In the bridge area, bricks with the stamps *legio VII Claudia*, *coh. I Cretum*, *II Hispanorum* and *III Brittonum* were found, IDR II, p. 17.

⁸⁷⁸ Part of the troop could have been stationed in the fort at Transdrobeta, on the other bank, information C. C. Petolescu.

⁸⁷⁹ RMD 2; RMD 55.

⁸⁸⁰ AE 1959, 309 = IDR II, 14.

⁸⁸¹ AE 1990, 860; CIL XVI, 57 = IDR I 2.

⁸⁸² Piso, Benea 1984.

⁸⁸³ CIL XVI, 111; RMD 55.

Moesia Superior army. The explanation seems to be valid also for the cohort *V Gallorum* mentioned above⁸⁸⁴. This troop is displaced from Drobeta to Porolissum, being replaced by the end of the 2nd century AD by *coh. I sagittariorum*⁸⁸⁵.

The *sagittarii* cohort was associated with *coh. I Aelia sagittariorum* ∞ *equitata*, recorded in Pannonia Superior diplomas of AD 133, 146, 148, 149⁸⁸⁶, numerous inscriptions and military stamps from Pannonia Superior, especially from Klosterneuburg⁸⁸⁷. The *sagittarii* unit is also mentioned in Germania, at Bingen⁸⁸⁸. In Dacia the troop is present most probably at Drobeta, where it left a series of tile stamps and epigraphical monuments⁸⁸⁹. Other troop stamps were discovered in the forts at Zăvoi and Tibiscum as well⁸⁹⁰. According to J. Spaul, the troop movement starts from Germania at Bingen, after which is present in Pannonia at Klosterneuburg for great part of the 2nd and the first half of the 3rd centuries AD, and subsequently, for a shorter period of time at Drobeta, in Dacia Superior⁸⁹¹. However, arguments pleading in favour of two distinct troops of *sagittarii* are quite obvious: in all military diplomas, stamps and inscriptions mentioning the troop in Pannonia Superior, the unit bears the imperial surname *Aelia*, probably evidencing it was established under Hadrian⁸⁹², while the stamps and inscriptions from Germania and Dacia record the troop by the abbreviations *coh(ors) I sag(ittariorum)*, *coh(ors) I sagitt(ariorum)* or *c(ohors) I s(agittariorum)*. Stamps with the CIS acronym from Zăvoi and Tibiscum emerge in early occupation levels of the forts⁸⁹³. Additionally, the unit dedicates an altar to emperor Marcus Aurelius at Tibiscum, in AD 165⁸⁹⁴, thus approximately during the time it was evidenced in Pannonia⁸⁹⁵. The troop is present at Drobeta from the very beginning of the 3rd century AD and not from mid same century as argued by J. Spaul⁸⁹⁶, as proven by stamps mentioning the imperial surname *Ant(oniniana)*⁸⁹⁷. Hence, I suppose that the troop from Dacia, initially present at Tibiscum, probably at Zăvoi as well, and at Drobeta during the 3rd century, is identical with that in Germania, but different from the similarly named troop from Pannonia Superior⁸⁹⁸.

⁸⁸⁴ Piso, Benea 1984, 284; Piso 2001, 230.

⁸⁸⁵ Piso 2001, 230. For the troops history, see also Petolescu 2002, 92–5, 120–1.

⁸⁸⁶ CIL XVI, 76, 178, 96, 97. For most recent evidence on the troop correcting J. Spaul, see Țentea, Matei-Popescu 2004, 291–3.

⁸⁸⁷ Spaul 2000, 480.

⁸⁸⁸ CIL XIII, 7512, 7513, 7514, 7515, 11692a.

⁸⁸⁹ Benea 1976, 80, fig.2/1–4, 3/1, 2–5. The troop is most certainly present at Drobeta also during the 3rd century AD, as proven by the imperial epithets Antoniniana, Gordiana or Philippiana recorded by tile stamps or inscriptions (IDR II 106; CIL III 6279 = IDR II 23; IDR II 10). Three *sacer(dotes) c(o)ho(rtis)* are mentioned by another novel inscription, Petolescu 2002, 120 n. 10.

⁸⁹⁰ IDR III/1, 251, 252. Piso, Rogozea 1985, 213–4; Petolescu 2002, 120.

⁸⁹¹ Spaul 2000, 481–2. W. Wagner discusses the two military units separately, considering *coh. I Sagittariorum* was present only at Drobeta in the 3rd century AD, Wagner 1938, 182–3.

⁸⁹² Certainly, troops wearing certain imperial *nomina* did not necessarily form under respective emperor, as the title might be granted as simple honourific title, see Bersanetti 1940, 105–7. As such, the similar case of the infamous *coh. I Ulpia Brittonum* from the AD 106 diplomas (IDR I 1), established under the Favians and not under Trajan.

⁸⁹³ Benea, Bona 1994, 37. It is hard to argue this in the case of Zăvoi, which was never researched archaeologically.

⁸⁹⁴ IDR III/1, 130.

⁸⁹⁵ *Coh. I Sagittariorum* is evidenced at Klosterneuburg by two inscriptions dated in AD 159 and 230, AE 1977, 616; CIL III, 5647.

⁸⁹⁶ Spaul 2000, 481–2.

⁸⁹⁷ IDR II, 106.

⁸⁹⁸ Same conclusion in Țentea, Matei-Popescu 2004, 292.

At Drobeta, it appears with Gordiana and Philippiana epithets, thus attesting its presence here until late 3rd century AD⁸⁹⁹.

23. INLĂCENI

The fortification from Inlăceni, identified on ‘Cetate’ site close to the current village is located at approximately 30 km south the fort at Sărățeni. Dimensions of the stone-walled fortification are 142 × 146 m (2,07 ha) (pl. 25). Single certain data on the internal planning come from the central fort part⁹⁰⁰.

Principia

The shape of the headquarters building (fig. 31), sized 29 × 16.30 (472,7), is interesting as it apparently lacked the inner courtyard⁹⁰¹ thus consisting only of *basilica* and four rooms in the back. The 2.3% proportion of the total surface is extremely small. A courtyard evidently existed due to the building position and the great distance from *via principalis* to the building façade. *Portae principales* are not perfectly symmetrical, yet the distance between the western limit of the basilica and the probable route of *via principalis* is of c. 20.00 m. In fact, the building orientation is slightly displaced from that of the fort, so it was clearly constructed depending on *via principalis*, hence it was in its close vicinity.

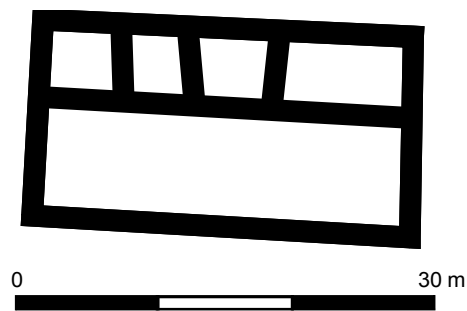


Fig. 31

Therefore, the courtyard would have been sized c. 20.00 × 26.50 m (530 m²), while the entire headquarters building of c. 26.50 × 35.00 m (927.50 m²), stretching on a normal c. 4.6% of the fortification total surface.

In the back, four rooms were identified, an interesting fact since an odd number of rooms were encountered elsewhere⁹⁰², usually placed in equal numbers on both sides of the *aedes*. In this case, two rooms are located north of *aedes* and only one south. The central room is not set precisely on the building axis, being displaced by c. 1.00 m southwards. Thus, side rooms in the northern part are of approximately 4.70 × 4.90 m and 3.70 × 4.90 m and that in the south of c. 9.00 × 4.90 m. It is therefore apparent that the last room must have been compartmented.

Horrea

The two buildings south the headquarters building were considered store houses based only on their location. There is no element that would make us believe they were *horrea*, as even buttresses absolutely necessary for buildings with no internal compartments of the type are missing. Moreover, their orientation is rather unusual, being practically perpendicular on the headquarters building. Or, in almost all cases, such store houses are parallel to the headquarters building axis. We should also notice that, compared to the headquarters building, these buildings are not oriented according to *via principalis*, their sides being parallel

⁸⁹⁹ CIL III 6279 (= ILS 3154; IDR II 23); IDR II 10.

⁹⁰⁰ See Gudea 1979.

⁹⁰¹ Dimensions are approximate, slightly different if measured from plan, see Gudea 1997d, 59–60.

⁹⁰² Except for the headquarters building at Porolissum, although the odd number is the result of other rooms addition to the initial plan.

to the fort sides. Therefore, I wonder if such constructions were not previous to *via principalis* of the stone fort and implicitly to *principia*, the building being set upon a road which belonged to the fort's timber enclosure, where gates *principales* should have been symmetrical. Following archaeological excavations, no chronology element became obvious.

The structures sizes (fig. 32) are of 20.00 × 13.00 m (260 m²), respectively 20.00 × 7.70 m (154 m²), a c. 2% proportion of the fort surface, usual sizes being around this number. The length/width ratio is in one case 1 : 1.5 and 1 : 2.60 in the other, rather curious differences for two buildings serving same purpose.

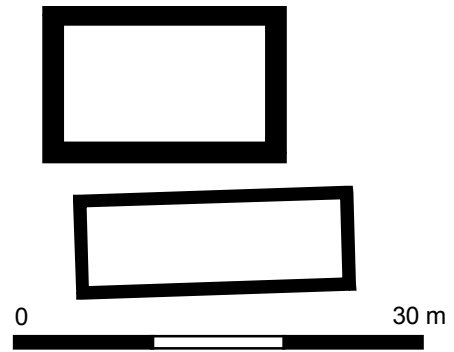


Fig. 32

Troops

During the first half of the 2nd century AD, the garrison of the fort at Inlăceni was probably *coh. VIII Raetorum*, a *quingenaria* and *equitata* troop, therefore suitable for the fort sizes. Prior mid 2nd century AD, the unit is transferred to Teregova, being replaced by another *coh. quingenaria* and *equitata*⁹⁰³, *III Hispanorum*⁹⁰⁴. Accordingly, the troop began to be recorded within military diplomas, the first being from AD 144 and then from AD 157, 158 and 179⁹⁰⁵. The troop is mentioned in numerous inscriptions discovered exclusively at Inlăceni, being present here also during the 3rd century AD, as proven by the emergence of the imperial surnames *Antoniniana* (?)⁹⁰⁶, *Severiana Alexandriana* (?)⁹⁰⁷, *Gordiana*⁹⁰⁸ and *Philippiana*⁹⁰⁹. At Inlăceni its title is also abbreviated on a few tile stamps⁹¹⁰. Another stamp, exhibiting a curious ligature, found west of the fort at Inlăceni is very interesting⁹¹¹. The stamp begins with the ligature and is followed by H III. The first sign represents a sort of reversed 8 without being entirely visible. Therefore, IDR III/4 editors complete the abbreviation as COH III, mentioning concurrently it is the single stamp where COH, instead of C, appears before H. However, the ligature reading as CO is rather unlikely. Considering the writing could have been retrograde, the ligature is the last and not the first sign. Therefore, it should represent signs that could appear after H. If other stamps would be taken into account, an ISP or SP

⁹⁰³ The troop is evidenced as *equitata* by inscription IDR III/4, 277 = AE 1978, 698; IDR III/4, 280, while a troop decurion is mentioned in IDR III/4, 283 = AE 1958, 311; 1988, 974.

⁹⁰⁴ Numerous *praefecti* of the troop are attested, see for all inscriptions the notes from Petolescu 2002, 115, n. 5–15.

⁹⁰⁵ CIL XVI, 90 = IDR I 14; CIL XVI 107 = IDR I 15; CIL XVI 108 = IDR I 16; RMD 123 = AE 1987, 843.

⁹⁰⁶ IDR III/4, 267 = AE 1988, 971.

⁹⁰⁷ IDR III/4, 265 = AE 1988, 970. Epithets are considered to be *Antoniniana*, yet since the text was erased, C. C. Petolescu decided it was *Severiana Alexandriana*, Petolescu 2002, 115, n. 2.

⁹⁰⁸ IDR III/4, 277 = AE 1978, 698.

⁹⁰⁹ IDR III/4, 269 = AE 1988, 973. The inscription does not mention the troop name, although it might have been the cohort of Hispanics.

⁹¹⁰ Usually, the abbreviation is CIIIIHISP, AE 1912, 71 = IDR III/4, 301. Nonetheless, similar stamps are also signalled, yet without the last P (IDR III/4, 302), yet it may be caused by the stamps fragmentation. Such stamps were also discovered by Niegobaur (see comment in IDR III/4, p. 237) at Mihăilești, a village north from Miercurea Ciuc and at c. 85 km east of Inlăceni, outside the forts line on the eastern *limes* of Dacia.

⁹¹¹ IDR III/4, 302.1.

ligature would have been in place here; the H and I ligature is possible with this stamp sign, although letter P would be harder to distinguish. Less likely, yet not excluded, the sign could be ∞ as *milliaria* symbol. The latter seems most plausible, yet one should bear in mind the approximately 10 inscriptions mentioning *praefecti* as troop commanders, one even when the troop wore the epithet *Gordiana*. As such, the ligature is most likely related to the proper troop name.

Other tile stamps record *coh. I Alpinorum* again⁹¹², garrison of Sărățeni or Călugăreni forts, nearby, probably partaking certain civil works or repairs.

24. The fort at **MEHADIA** is located on the road to Tibiscum, north of Orșova, positioned in the place named ‘Zidină’ at 3 km north of the village, on a plateau between the national road Caransebeș-Orșova and river Belareca. The earliest archaeological evidence date by mid 2nd century AD, yet, considering its strategic position, it might have been erected under Trajan as well. First and most numerous epigraphic discoveries coming from here or Herculane, were made north of the fort, in the location of a medieval fortress, the area named ‘Biserica ungrească’ or ‘Biserica spartă’, being reused as construction materials. First archaeological research were carried out prior the First World War by general N. Cena, who discovered the famous inscription dedicated to Iulia Mamaea (IDR III/1, 76) and subsequently in the 40’s by M. Macrea, I. I. Russu, N. Gostar and Y. Ghenovici-Marinescu teams. Later, research was resumed by D. Benea and her team from the University of Timișoara, furthered with interruptions until last years⁹¹³. Unfortunately, for several reasons, site reports published lately provide almost no details on the internal planning of the fort. Evidently, the establishment of occupation phases in the enclosure area is beneficial, yet, without a plan that would mirror the situation described by the research team from Timișoara, the archaeological situation is hard to understand.

The fort is sized 116.00 × 142.00 m (1.65 ha), yet we possess no clear data on its interior.

The troops evidenced here are *coh. VIII Raetorum*, *coh. III Delmatarum* and detachments of *legio XIII Gemina* and *legio V Macedonica*. The last two military units appear connected, explained by the military unrest under Marcus Aurelius, in fact the cause for legion’s *V Macedonica* movement to Dacia. Other authors relate the association of these legions to military operations during Gallienus’s reign⁹¹⁴. The cohort of *Raeti* is present here probably to participate in certain civil works⁹¹⁵, the troop being the garrison of the fort near Teregova (see *infra*). The cohort that leaves most material traces at Mehadia is cohort *III Delmatarum*, consisting of stamps on bricks and tiles, as well as inscriptions mentioning troop soldiers⁹¹⁶. The troop is for the first time mentioned in the army of Dacia Superior by the diploma from AD 179⁹¹⁷. *Coh. III Delmatarum* seems to have been established under the

⁹¹² IDR III/4, 299.

⁹¹³ For previous research see Macrea 1949 and Macrea et alii 1993. For results of the last years see CCA 2002 (2003); CCA 2003 (2004). Single clear data come from the first site report, recording that several kilns were identified in the enclosure area, yet no buildings are referenced.

⁹¹⁴ Moga 1985, 72.

⁹¹⁵ IDR III/1, S.120; Marcu 2004, 581.

⁹¹⁶ IDR III/1, 99, 100; IDR III/1, 76, 77, 81, 87.

⁹¹⁷ The authors suppose that the troop was transferred here due to the Marcommanic wars, Piso, Benea 1984, 265–267, 280.

Flavians⁹¹⁸, being mentioned by the military diplomas from Germania and then Germania Superior of AD 80 until AD 134 and, also, attested by tile stamps from various areas in Germania Superior⁹¹⁹. At least in the 3rd century AD, the troop is mentioned as *milliaria* and *equitata* by one inscription where it bears the surname *Alexandriana* and *Valeriana Galliana*⁹²⁰. Or, the fort at Mehadia, of 1.65 ha, is rather small even for a *milliaria peditata* troop. In fact, the single troop commander attested at Cologne is a *praefectus*⁹²¹. Therefore, it is supposed that either troop vexillations were garrisoned in close sites as early as the beginning of the troop's stationing in the area or the unit was present 'understrength'⁹²². I mention the 1.30 ha fort from Hardknott as analogy, where, coincidentally, still a *coh. Delmatarum* was stationed, yet the IIII, which was *equitata*. P. Bidwell assumed this fort was too small, therefore parts of the troop were stationed at Ravenglass as well⁹²³.

I am not certain on the troops' precise transfer from Germania to Dacia, yet it might have taken place around mid 2nd century AD. Since stamps recording the *Raeti* troop at Teregova emerge from the last occupation level, one may not exclude that the troop was initially stationed at Mehadia, moving subsequently to Teregova and being replaced by *coh. III Delmatarum* after mid 2nd century AD.

25. MICIA

According to its strategic location, the fort at Micia (pl. 20) is, beside the one at Tibiscum, one of the most important military centres of Dacia, as proven by the fortification sizes and the number of soldiers it garrisoned⁹²⁴. The surface it occupied is remarkable, 360.00 × 181.00 m (6.51 ha)⁹²⁵, being more extended than even the 'large' fort at Tibiscum, while the 1.98 length/width ratio is also surprising. The dimensions and plan of the earthen fort supposed to have existed prior are unknown⁹²⁶. A smaller fort probably existed previously since *ala*, known to be quartered in the fort is mentioned only from mid 2nd century AD.

Although archaeological excavations were numerous, the single known interior construction, partially researched, was a *horreum* from *latus dextrum*⁹²⁷. The building is sized 22.85 × 12.70 m (290 m²) and has 0.95 m thick walls. Its floor was initially supported by transversal walls, placed at 1.35–1.45 m distance ones from the other, rather large for a timber floor. Yet, the 0.65–0.70 m thickness of the walls was great enough to carry large girders. Subsequently, the floor was replaced by another carried by stone poles and bricks. The 0.85 m distance between the poles allowed timber floor prop.

Beside excavations, results could have been provided by aerial photographs, yet the relatively recent⁹²⁸ indicate, north to the current European road, only building ends or inner roads. If buildings, they are the extremities of four structures, oriented *per scamna*, distinguished on c. 20.00 m lengths and 20.00 m widths. Upon shape and order, one in the exten-

⁹¹⁸ Wagner 1938, 132–3; Spaul 2000, 305–6 with epigraphical evidence. The attestation from Pannonia (AE 1914, 100) used by W. Wagner, is uncertain, see Kraft 1951, 174.

⁹¹⁹ CIL XVI, 158; CIL XVI, 36; CIL XVI, 62; RMD 90; CIL XVI, 80; AE 1975, 621; CIL III, 12433–6.

⁹²⁰ IDR III/1, 76.

⁹²¹ AE 1896, 101. Obviously, it does not necessarily indicate that troop effectives comprised 1000 soldiers.

⁹²² Marcu 2004, 578.

⁹²³ Bidwell, Snape, Croom 1999, *passim*.

⁹²⁴ For bibliography on Micia, see Petculescu 1981; Petculescu 1983; Alicu 1998.

⁹²⁵ For previous research see Floca, Mărghită 1970.

⁹²⁶ C. Daicoviciu identified the earthen fort by a trench, Daicoviciu 1931, 169–70.

⁹²⁷ Described in detail in Petculescu 1987, no. 3.

⁹²⁸ Hanson, Oltean 2003, Fig. 2.

sion of the other and according to their width, these structures seems to be double barracks. The handiest analogy available is the *ala* fort at Heidenheim where two barracks, of which one was double, were unearthed in *praetentura sinistra*, the last being also c. 20.00 m wide⁹²⁹.

Troops

The military units garrisoned in the stone fort at Micia are *ala I Hispanorum Campagonum*, *coh. II Flavia Commagenorum* and *numerus Maurorum Miciensium*. *Ala* is mentioned for the first time within the diploma of Pannonia Inferior of AD 114⁹³⁰ and then in those issued for Dacia Superior in AD 136/138, 144, 157 and 158⁹³¹. Based on an inscription from Apulum⁹³² it was supposed that the troop was at least at some point *milliaria*⁹³³. N. Gudea and M. Zahariade disagree⁹³⁴, yet if we consider the very large sizes of the fort at Micia, one may not exclude that the unit was indeed *milliaria*, although no province with two *alae milliariae* is known. Obviously, only fort sizes cannot be an argument themselves⁹³⁵, yet considering that *coh. II Flavia Commagenorum* was *quingenaria*, even if *equitata*, and even if the Moors were over 500 soldiers, one would expect that the *ala* in question would be of 1000 men or that beside these troops other effectives existed in the fort at Micia. The cavalry troop was probably, as early as the first half of the 2nd century AD, quartered at Micia, replacing probably under Hadrian, *ala I Ituraeorum sagittariorum*⁹³⁶ recorded in Dacia by the AD 109 and 110 diplomas⁹³⁷, yet returning shortly after to Pannonia Inferior, where it was attested by the AD 98 diploma⁹³⁸ and then the diplomas from AD 135 and 139⁹³⁹.

The fact that *ala Hispanorum Campagonum* was garrisoned in the fort at Micia is obvious following the discovery of several inscriptions⁹⁴⁰ and tile stamps⁹⁴¹ recording its presence including during the 3rd century AD⁹⁴²

Another inscription from Micia, dated under Septimius Severus, seems to attest the construction here of a basilica belonging to the same *ala Campagonum* (CIL III 1343 = IDR III/3, 77)⁹⁴³. The same inscription mentions other numerous troops which apparently

⁹²⁹ Filtzinger, Plank, Cämmerer 1976, 292–7, Abb. 117.

⁹³⁰ RMD 153.

⁹³¹ Petolescu, Corcheș 2002, 120–122; CIL XVI, 90, 107, 108. J. Spaul mentions the troop in a diploma given for Pannonia Inferior, unpublished, dated in AD 114, see Spaul 1994, 74. Within the diploma from AD 119, the troop is not mentioned with the title *Campagonum*, being possible that its homonym, *ala I Hispanorum* was present in Dacia, transferred subsequently to Dacia Inferior, and, thus, first record on the troop at Micia would come from AD 136/138.

⁹³² CIL III, 1193 = ILS 2746.

⁹³³ See discussion at Spaul 1994, 75–6, n. 5.

⁹³⁴ Gudea, Zahariade 1980, 63.

⁹³⁵ See for instance Breeze, Dobson 1969, *passim*.

⁹³⁶ A troop veteran is known at Micia (CIL III, 1382 = IDR III/3, 75). Evidently, it does not prove the troop presence at Micia.

⁹³⁷ RMD 148; CIL XVI, 57 = IDR I 2; CIL XVI 163 = IDR I 3.

⁹³⁸ CIL XVI, 42.

⁹³⁹ AE 1999 1352 = RMD IV 151; CIL XVI 175.

⁹⁴⁰ IDR III/3, 56, 57, 59, 60, 65, 75, 77, 172, 183.

⁹⁴¹ IDR III/3, 38a, 196.

⁹⁴² The troop name has attached epithets like *Antoniniana* or *Philippiana*.

⁹⁴³ CIL editors, although render row 7 as O BAS AL CM, do not complete the BAS abbreviation, CIL III 1343. On the other hand IDR III/3 complete 77 as *a[l]ae Ba[t(avorum mil.) Al(ae) Cam(pagonum)* concluding that a larger number of troops could not have been brought here unless following serious military situation, IDR III/3, p. 93–4. IDR editors might be right, yet respective inscription, considering

participated in the erection or revetment of the same construction⁹⁴⁴. It is indeed, hard to believe that so many troops could be quartered at Micia only to partake construction works, especially since one of them was displaced from rather large distance⁹⁴⁵. Whatever the reasons, it is certain that the monument requiring such repair was important.

Earliest evidence on the troop certain presence at Micia come from under Hadrian, when *coh. II Flavia Commagenorum* dedicated an altar to the emperor (IDR III/3, 51 = CIL III 1371). The troop was initially present in Moesia Inferior, being attested in the diplomas from AD 96, 100 and 103/7⁹⁴⁶, participating also in the Dacian wars⁹⁴⁷. Later on, the cohort would make part of the new province, recorded in the diplomas from Dacia of AD 109, 110 and the diplomas of Dacia Superior of AD 123, 136/8, 144, 157 and 179⁹⁴⁸. The most interesting of the diplomas is obviously the first, issued for troops from two provinces, whose holder is a Syrian soldier of this *Zaccae Palaei* troop.

A single attestation comes from outside Micia, the cohort abbreviation being found on a tile from Cladova (Arad county)⁹⁴⁹. The locality is on the road from Micia and Tibiscum at a distance of c. 75 km from the first. Considering the relative vicinity of this locality to Micia, I suppose that the troop participated with tile material at a public construction or, less probable, that a vexillation was present for the same purpose in the area. In fact, considering the distance of 150 km it is not excluded that another smaller fortification was established on the road between Micia and Tibiscum, occupied by vexillations of the troops located in neighbouring forts. Evidently, other Roman settlements, villas or public edifices existed on this road, yet another fortification located precisely by mid distance between the two important forts was required. Moreover, Cladova was located by the intersection of a road initiating from Bulci on Mureş River to Tibiscum with a road connecting Micia to the fort at Tibiscum, crossing today's Lugoj.

The majority of the troop evidence come from the fort at Micia⁹⁵⁰, with epigraphic items dated starting with Hadrian until the 3rd century AD, when the troop bears epithets like *Severiana*⁹⁵¹ or *Phillipiana*⁹⁵². The troop is evidenced as *sagittaria* as early as the diplomas of first stationing years in Dacia, while other inscriptions from Micia mention it as *equitata*⁹⁵³. The many troop *praefecti*⁹⁵⁴ prove that the troop was *quingenaria*.

the formula *sub cur(a) Iul(ii) Tere(n)tiani*, must evidently refer to the construction or reconstruction of an edifice. Hence, other authors completed row 7 as *bas(ilyca) al(ae) C(a)m(pagonum)*, Torma 1865, 133; Petolescu 1974, 370–1; Petolescu 2002, 73.

⁹⁴⁴ For a restoration of the troop names see IDR III/3, 77.

⁹⁴⁵ Among mentioned units, appear all troops known at Micia: *coh. II Flavia Commagenorum*, *numerus Maurorum Tibiscensium* and *ala Campagonum* and other from neighbouring forts like Tibiscum: *coh. I Vindelicorum* and *numerus Maurorum Tibiscensium*. Yet, a *coh. I Alpinorum* moves from eastern Dacia Superior appearing precisely at Micia. It is in fact a list of the troops in Dacia Superior, Piso 1991, 146.

⁹⁴⁶ AE 1977 722 = RMD 6; CIL XVI 146; CIL XVI 54.

⁹⁴⁷ Strobel 1984, 128.

⁹⁴⁸ Pferdehirt 2004, nr. 22; RMD 148 = AE 1990, 860; IDR I 3 = CIL XVI 163; Petolescu, Corcheş 2002, 120–6; IDR I 14 = CIL XVI 90; IDR I 15 = CIL XVI 107; Piso, Benea 1984 = AE 1987 = RMD 123.

⁹⁴⁹ Hügel 1996, 73–8.

⁹⁵⁰ For the troop tile stamps discovered at Micia, see Petolescu, Mărghitan 1974, no. 32–5; Petolescu 1976, no. 3; Gudea 1976, no. 1; IDR III/3, 197; Petolescu 1984, no. 233 = AE 1983.

⁹⁵¹ IDR III/3, 46 = AE 1903, 66

⁹⁵² CIL III 1379 = IDR III/3, 58.

⁹⁵³ IDR III/3, 138 = AE 1903, 65 = ILS 9273. A troop decurion is also mentioned in CIL III 1355 = IDR III/3, 105.

⁹⁵⁴ For the cohort prosopography see Spaul 2000, 404 and Petolescu 2002, 97–9.

The unit civil works activity is proven by inscriptions recording that the troop baths were remade⁹⁵⁵, a significant fact that might prove that each troop benefited of its own facilities. Unfortunately, baths were excavated in few forts, and, to our knowledge, fully researched fortifications with several troops in garrison, which had several baths, are unknown.

The Moors are definitely attested at Micia by the beginning of the 3rd century AD.⁹⁵⁶ and in Dacia Superior under Antoninus Pius by the military diploma from AD 158⁹⁵⁷. We do not know which of the Moors units should be identified with those of AD 158, it is certain though that they appear at Micia for the first time in AD 205, being attested as *Mauri Mic(ienses)* (AE 1944, 74 = IDR III/3, 47), without being yet organized as *numerus*. This first record is important also because it clearly proves that the Moors were useful not only for border police activities,⁹⁵⁸ but also in constructions, participating in their erection, as mentioned by respective inscription: *Mauri Mic(ienses) et Iul(ius) Evangelianus, praefectus), templum deorum patriorum vetustate conlapsum sua pecunia) et opera restituer(unt)*. Soldiers of the troop still are mentioned subsequently at Micia, this time as *numerus*,⁹⁵⁹ while at Potaissa (Turda) probably a troop decurion, which proves that the unit was at some point also *equitata*⁹⁶⁰.

Considering the *Antoniniana*, *Alexandriana*, respectively *Philippiana* imperial surnames worn by the Hispanic *ala* and the mentioned cohort, their presence is certain in the fort at Micia during the 3rd century, beside the irregular troop of Moors.

26. The position of the fort at **ODORHEIUL SECUIESC** is unknown, yet the discovery of *C I VB* stamps type made specialists suppose the existence of a fort in this location⁹⁶¹. Another stamp was discovered in Ozd area, on Târnava River, at c. 150 km west of Odorheiul Secuiesc⁹⁶². *Coh. Ubiorum* is mentioned for the first time in the diplomas of Moesia Inferior of AD 75, 78, 97, 99 and 105⁹⁶³. The cohort shall have attached numeral I only within Dacia Superior diplomas starting with AD 136/8, 144, 157 and 179⁹⁶⁴. Prior Dacia Superior mentions, the troop appears probably in one diploma from Dacia Inferior dated between AD 120–130, without numeral⁹⁶⁵. One of the possibilities for the troop emergence in Dacia Inferior is, according to the authors issuing the diploma, a border change between Dacia Inferior and Dacia Superior. Thus, Odorheiul Secuiesc would have been part of Dacia Inferior

⁹⁵⁵ CIL III 1374 = IDR III/3, 45 ‘...balneas coh(ortis) II Fl(aviae) Commag(enorum) vetustate dilabsas restituit...’

⁹⁵⁶ IDR III/3, 47 = AE 1944, 74. For other evidence on the Moors troop, see Petolescu 2002, 134 sqq.

⁹⁵⁷ See on Moors Southern 1989, 93–4.

⁹⁵⁸ For interpretation of the Moors role within irregular troops of the Empire, see Southern 1989, 92–3.

⁹⁵⁹ CIL III, 6267 = IDR III/3, 166; CIL III 7872 = IDR III/3, 176.

⁹⁶⁰ The fragmentary inscription renders N M and the left half of another M (CIL III 7695), therefore P. Southern is right when identifying this *numerus* with the one at Micia, Southern 1989, 136.

⁹⁶¹ CIL III 8074, 25; IDR III/4, 262.

⁹⁶² IDR III/4, 132.

⁹⁶³ Pferdehirt 2004, no. 1; Eck, MacDonald, Pangerl 2002a, no. 1; Weiss 1997, 233; CIL XVI, 44; Pferdehirt 2004, no. 11; Petrovsky 2005, 40–3. From when the troop was stationed in Moesia Inferior, another tile stamp is signalled at Capidava (AE 1997, 1330) and few inscriptions mention a prefect and other soldiers, CIL X 6015; PME, I 54, Bălțeanu 2000, 39, no. 1.

⁹⁶⁴ Petolescu, Corcheș 2002, 120–6; CIL XVI, 90 = IDR I 14; CIL XVI 107 = IDR I 15; RMD 123. The inscription from Băile Herculane dedicated by a troop prefect (CIL III 1571 = IDR III/1, 63) dates from during stationing in Dacia.

⁹⁶⁵ Eck, MacDonald, Pangerl 2001, 38–42, no. 3. Inscriptions from Dacia also mention a soldier at Apulum (CIL III 1187 = IDR III/5, 494).

from the start and subsequently from Dacia Superior⁹⁶⁶. If it were so, then the stamps from Odorheiul Secuiesc and Ozd date from post AD 136/8 or little prior, when the troop is attached the numeral. Hence, it is not certain that the troop was stationed, when it was part of Moesia Inferior or Dacia Inferior armies, in the fort at Odorheiul Secuiesc, or that the border between Dacia Inferior and Dacia Superior changed at some point⁹⁶⁷. Or, Odorheiul Secuiesc was initially part of Dacia Inferior, then from Dacia Superior, so the troop was quartered here from the beginning⁹⁶⁸.

27. The fort at **OLTENI** is located on Dacia Inferior and Dacia Superior border, yet we do not know to which province belonged the troop whose presence was signalled here. Therefore, it is possible that the fort was part of Dacia Inferior. Should the *C IIII BET* abbreviation⁹⁶⁹ on tile stamps be completed as *c(ohors) II Fl(avia) Bess(orum)*, it is probable that the fortification belonged to Dacia Inferior, since the troop was part of this province army.

The shape and sizes of the fortification from Olteni are unusual following probably the land configuration (pl. 26)⁹⁷⁰.

28. The fort at **ORĂȘTIOARA DE SUS** is located north the former Dacian fortress from Costești in the place named ‘Piatra Grădiștii’, north-east of Glemenea top⁹⁷¹. First data on the fort sizes are rather clear, although different authors give different sizes⁹⁷². From the beginning of the 20th century, ‘Apa Orașului’ stream damaged the fortification as confirmed by the excavations from 1957⁹⁷³ and 1964⁹⁷⁴ which targeted the defence system. Only the north-west corner of the fort and part of the western and northern sides are preserved.

Numerus Germanicianorum exploratorum was probably stationed in the Orăștioara de Sus fortification⁹⁷⁵. Single datable proof recording this *numerus* inside the fort is the altar dedicated to Diana in AD 176/7⁹⁷⁶. A funerary stela discovered in the fort attests an *expl(orator) domo Agrip(pinensi)*⁹⁷⁷. The troop is also mentioned in one inscription from

⁹⁶⁶ It could have happened little prior AD 130, yet no later than 140, Eck, MacDonald, Pangerl 2001, 40–1. After the discovery from AD 136/7 it is certain than not prior 136/8.

⁹⁶⁷ See for this border change Eck, MacDonald, Pangerl 2001, 40–1, but also Petrowszky 2005, 42.

⁹⁶⁸ Information I. Piso.

⁹⁶⁹ See discussions on these stamps in AE 1967, 409 = 1975, 725 = IDR III/4, 318. In Piso 1999, 84 reads IIII ?BEL –. See also Russu 1972, 68; Vlădescu 1983, 38; Gudea 1997, 62; Gudea 2001 (with bibliography). It was supposed the abbreviation of an unknown troop name *coh. IIII Baetasiorum* (see Gudea 2001a, *passim*). Yet, the single unit composed of *Baetasii*, as tribe from Gallia Belgica, is evidenced as *coh. I Baetasiorum* in the first half of the 2nd century AD in Britannia, see Spaul 2000, 236. For identification of the troop from Olteni with *coh. II Flavia Bessorum*, see Petolescu 2002, 85.

⁹⁷⁰ See Székely 1980.

⁹⁷¹ History of research and bibliography on oldest mentions of the fort are summarized in Ferenczi 1951, 108–9.

⁹⁷² A. Fodor maintains that they are 356.50 × 133.00 m and J. Niegabaur of 181.90 × 153.00, later H. Daicoviciu and I. Glodariu confirming J. Niegabaur measurements, Daicoviciu, Glodariu 1973, 18, n. 6.

⁹⁷³ Gostar 1959, 350–353.

⁹⁷⁴ The gate span on the fort western side was identified, consisting of 4.05 m interruption, formed by ‘the (enclosure) wall bend in right angle... on a length of 4.40 m’; no towers were identified, Daicoviciu, Glodariu 1973, 79–80.

⁹⁷⁵ Gostar 1972. For *exploratores* and their functions see briefly Speidel 1970, 148, n. 70.

⁹⁷⁶ CIL III, 12573 = AE 1912, 304 = IDR III/3, 262.

⁹⁷⁷ IDR III/3, 263.

Micia dated under Septimius Severus⁹⁷⁸. A Thracian *miles* of the troop, *Zeno Tarasis*, is recorded by a funerary inscription from Apulum⁹⁷⁹. In all mentioned inscriptions, the troop name appears with the abbreviation *n. Germ*, read as *n(umerus) Germ(anicianorum)*. Also, abbreviation from tile stamps discovered at Orăștioara de Sus is of NGE, NG or NGER type⁹⁸⁰, the read name being *Germanicianorum*⁹⁸¹.

It was supposed that the troop is identical with the one attested in Germania (CIL XIII 8683), Thracia (CIL III 14207) and probably the one in Mauretania⁹⁸². Indeed, the mentioned inscriptions record the troop as *n(umeri) e[xpl(oratorum) G]erm(anicianorum)* and *n(umeri) expl(oratorum) [G]ermanicianorum Ger(maniae) inf(erioris)*⁹⁸³, the troop name being thus certain. Whether the troop is indeed the one which would be present in Dacia, requires clarification. The fact that the troops from Germania Inferior, Mauretania, Thracia and Dacia Superior are identical is proven by the presence at Orăștioara de Sus of one Iulius Secundus *explorator* from *Colonia Agrippina*⁹⁸⁴ and the NGE stamp, the last letter being considered abbreviation for *exploratores*⁹⁸⁵. Or, *numeri Germanicianorum* from Germania Inferior and Superior appear under a different name, while the troop from Orăștioara was never recorded with the *exploratores* title, and if it were, I don't see why this title would be placed by the name end since with the rest of the troops, it appears in front of either the ethnic name or the official troop title⁹⁸⁶. Moreover, evidence of those *numeri* from Germania comes especially from the 3rd century AD⁹⁸⁷. Finally, the name reconstruction based only on the NGE stamps is doubtful, being most likely *n(umerus) Ge(rmanicianorum?)*⁹⁸⁸. In fact, should we judge the troop from Orăștioara de Sus upon its *exploratores* quality, we would expect this *numerus* to have been the garrison of a border fort⁹⁸⁹. *Exploratores* are, as their name implies, scouts, being always positioned in the army front, and within the fort, closest to the gates⁹⁹⁰. Nonetheless, the geographical location of the fort at Orăștioara may justify *exploratores* troops.

⁹⁷⁸ CIL III 1343 = IDR III/3, 77.

⁹⁷⁹ IDR III/5, 615 = AE 30, 1910, 179–80; 1972, 487; Wagner 1938, 206.

⁹⁸⁰ *N(umerus) G(ermanicianorum) E(xploratorum)* or only *N(umerus) G(ermanicianorum)*, CIL III 8074, 29b = AE 1972, 487; 1974, 548.

⁹⁸¹ Gostar 1968a;

⁹⁸² W. Wagner argues that the troop temporarily stationed in Thracia and Mauretania (Wagner 1938, 206); however, G. Alföldy doubted the latter possibility, Alföldy 1968, 80. M. P. Speidel does not subsequently dispute over border incursions of the *exploratores* in Germania Superior, yet they were detached there for a short period between AD 253–255, Speidel 1983, 69–70.

⁹⁸³ In both cases they are a veteran and a soldier tomb stones.

⁹⁸⁴ IDR III/3, 263.

⁹⁸⁵ Gostar 1972. Other authors doubted the term *exploratores* in the abbreviated troop name, Daicovicu, Glodariu 1973, 80, n. 19.

⁹⁸⁶ Similar idea to H. Daicovicu, I. Glodariu (Daicovicu, Glodariu 1973, n. 19) or M. P. Speidel, although the latter did not doubt the *exploratores* quality of the troop from Orăștioara, Speidel 1983, n. 6. The single troop in whose case *exploratores* appear by the end of the name is *coh. IX Batavorum* (CIL III 11918), attached subsequent its establishment, see Southern 1989, 111. For the title of other troops see also Stein 1932, 260–9.

⁹⁸⁷ See Stein 1932, 264–5.

⁹⁸⁸ Same variant is provided also in AE 1972, 487

⁹⁸⁹ Units of *exploratores* were always on the border, often in most important strategic points, see Speidel 1983, 74–5; Southern 1989, 114.

⁹⁹⁰ Arrian, *Ektaxis* I, 1; Hyginus 24; Vegetius 3, 6.

The reading *Germanicianorum* may be accurate, although no inscription mentions the entire name, since the tombstone of the same Iulius Secundus is very elaborate and his name is Roman⁹⁹¹. Thus, it is hard to believe he was part of the *Germani* outside the borders⁹⁹².

On the other hand, N. Gostar attempts to prove that the troop was established once with the Dacian wars and even to identify it among the troops mentioned by Hyginus. Or, neither the Germans, nor *exploratores* from troops in Germania or elsewhere, were included among the troops of *nationes* listed by Hyginus⁹⁹³.

Regarding the troop size, if we bear in mind the (2.5 ha?) fort surface, it is quite large. Yet, single evidence on a troop commander records a *leg. V Macedonica* as *praepositus centurion*⁹⁹⁴. Since the troop had similar status to the neighbouring *pedites singulares Britannici*, not being *nationes* troops, clearly, if they were numerically similar, it would have been led by a tribune alike the troop from Cigmău. Nevertheless, by analogy with similar troops from Germania and no further arguments, M. P. Speidel believes that all units of the type were *milliariae*⁹⁹⁵. Considering the fort sizes and the importance of the area for the surveillance of Orăștiei Mountains, surely additional troops were required, most appropriate being probably legionaries, the fort being at c. 65 km from Apulum⁹⁹⁶.

Regarding the fort chronology, a *titulus honorarius* erected to honour Commodus⁹⁹⁷ and a coin from Elagabal⁹⁹⁸, discovered in north-west fort corner berm, respectively the northern rampart are noteworthy⁹⁹⁹.

⁹⁹¹ Regarding Iulius Secundus, M. P. Speidel did not doubt its relation to *exploratores* troops from Germania, yet, argues that it is unlikely he had moved to Dacia together with his troop, see Speidel 1983, 64–5. Contrary to W. Wagner, the author believes that Iulius Secundus began his military service under Trajan and died during his or Hadrian's reign, yet this supposition is based on the fact that the troop should have been present from the beginning of the fort at Orăștioara, with the purpose of surveilling Orăștiei Mountains. Moreover, evidence for an early dating of Iulius Secundus's stela is the fact that the troop from Orăștioara would relinquish the *exploratores* title rather early, after Gostar 1972, 241–7. Still, this and the fact that the troop ever wore the *exploratores* title are uncertain. In fact, *exploratores* term seems to be initially associated to legionaries and auxiliaries and only from the end of the 2nd, 3rd and 4th centuries AD to *numeri*, see in detail Stein 1932, 261 sqq; Speidel 1970, 148; Southern 1989, 110–4.

⁹⁹² Undoubtedly, the *Germanicani* title is connected, like the case of *pedites Britannici*, to the province whose name is used and not to populations outside Empire borders, see Stein 1932, 261; Speidel 1983, 65.

⁹⁹³ However, N. Gostar maintains that also (*Germanicani*) *exploratores* appear mentioned in Hyginus (24, 29, 30, 43) and that beside other mentioned *nationes*, they are found in the army of Dacia immediately after the conquest, hence these troops partook the Dacian wars, Gostar 1979, n. 4. Th. Mommsen argues that *nationes* and *numeri* troops originated from the troops mentioned by Hyginus, dated as contemporary to the Dacian wars, Mommsen 1884, 219–34. Conversely, I remind that *nationes* troops from Dacia seem to be part of the province army only from under Hadrian, and some even later, alike the rest of the *numeri*. Regarding Hyginus the term *Germanicani* is not mentioned at all. Hyginus mentioned *exploratores* indeed in the paragraphs quoted above by N. Gostar, yet not among the *nationes*, as shown by the author, but among the auxiliaries, between *classis* and cohorts *equitatae milliariae*, Hyginus 30.

⁹⁹⁴ IDR III/3, 262.

⁹⁹⁵ *Numerus exploratorum Divitensium* was led at some point by a prefect (CIL XIII 6814) similar in rank to an *ala milliaria* prefect, in the fourth *militia*, Speidel 1983, 73.

⁹⁹⁶ Archeological excavations within the fort revealed including a few *leg. XIII Gemina* tile stamps, IDR III/3, 265.

⁹⁹⁷ IDR III/3, 261.

⁹⁹⁸ Gostar 1959, 352.

⁹⁹⁹ Gostar 1959, 351–2.

29. POJEJENA

The fort at Pojejena is located left the Danube, hence it was theoretically part of Dacia, subsequently of Dacia Superior (pl. 18)¹⁰⁰⁰. Confirmation may be found in the history of the troop garrisoned there.

Principia

The identification of the headquarters building (fig. 33) in *latus* is regular, yet, its asymmetrical position compared to the east-west central axis of the fort, aligned to *via praetoria* is anomalous. Additionally, the existence of barracks in the headquarters building close vicinity, in *latus sinistrum*, is unusual for an auxiliary fort of the 2nd or 3rd centuries AD. As *via praetoria* lacked in this area confirms it was the central part of the fort. The situation here is extremely interesting, yet, archaeological excavation status prevents us theorize.

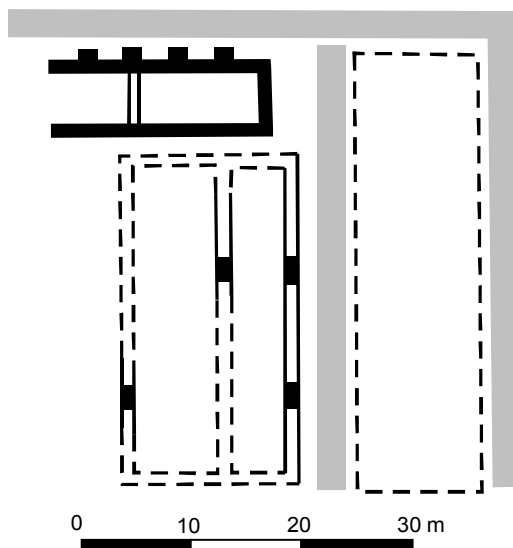


Fig. 33

However, an explanation is possible if we take into account the location, dimensions and features of this fort. The Danube vicinity and the presence of *coh. V Gallorum* (see *infra* on its similarity with the twin cohort from South Shields, Britannia) make me believe that the fortification at Pojejena had a similar function with that of the South Shields fort¹⁰⁰¹, in other words, of harbour and supply base¹⁰⁰². Therefore, the internal planning of the buildings, supposing more than usual *horrea* existed here, would seem strange. This would explain the central anomaly and the structure deemed headquarters building would be in fact something else, probably a store house.

Data regarding the barracks and the *horreum* from *latus* are insufficient for detailed analysis. It can only be inferred their sizes were adequate to such building types. The lack of buttresses on the eastern long side of the *horreum* is rather peculiar.

I do not believe that inside a Roman fort, like the Pojejena fortification, a temple, in this case a *mithraeum* could 'function' and no analogy is known thereafter¹⁰⁰³.

Troop

The probable garrison of the fort at Pojejena was *coh. V Gallorum*, a troop mentioned for the first time in Dacia in the diplomas from October 14th, 109 (AE 1990, 860) and July 2nd 110 (CIL XVI 163 = IDR I 3), recorded by a few tile stamps (IDR III/1, 23), one inscription mentioning a Q. Petronius Novatus (IDR III/1, 11 = AE 1972 490) and a second inscription where Q. Vibius Donatus is the prefect of an unnamed cohort¹⁰⁰⁴. It is odd that an identically

¹⁰⁰⁰ For a few data on the fort at Pojejena see Gudea, Uzum 1973; Gudea 1975a; Gudea, Bozu 1977a; Gudea, Bozu 1979.

¹⁰⁰¹ Obviously, a troop does not always determine the fort function, yet its camping here cannot be accidental.

¹⁰⁰² On several alterations of the headquarters building during various functioning phases of the fort at South Shields see Bidwell, Speak 1994, 16–20.

¹⁰⁰³ After Gudea, Bozu 1977; Gudea, Bozu 1977b; Marcu 2007a, *passim*.

¹⁰⁰⁴ The authors of IDR III/1, p. 40 suppose, probably on good grounds, that this was *coh. V Gallorum*.

named troop appears in the diploma from Tokod, also dated on July 2nd, 110 (CIL XVI 164). The diplomas from AD 110 mention beside *coh. V Gallorum* other two military units as part of Dacia and Pannonia Inferior armies¹⁰⁰⁵. Opinions concerning the simultaneous presence of the Galls troop in both diplomas maintain that the unit would either be divided or that two distinct troops existed¹⁰⁰⁶. It is hard to agree with the latter, as this would have been the case of the other units mentioned by both diplomas. Or, the four units mentioned above could have moved or sent vexillations to Pannonia Inferior following conflict conditions. Although this variant is plausible, latest research confirms the existence of two *V Gallorum* cohorts, one being the garrison of the South Shields fort in the second half of the 2nd century AD. It still remains to be seen whether the troop mentioned in the diplomas from Britannia of AD 122 (CIL XVI 69), 135 (CIL XVI 82), 127 (Nollé, Roxan 1997, 270, n. 25) and maybe 158 (Spaul 2000, 168) is one and the same with the unit in Pannonia Inferior. Beside these diplomas, the Galls cohort from Britannia is also recorded on a series of stamps, bricks and inscriptions¹⁰⁰⁷. It is significant that the troop role in the fort at South Shields was to ensure harbour and goods from sea to province transfer protection. Therefore, the twin unit from Dacia, garrisoned in the fort at Pojejena, fulfilled the same task as its homonym from Britannia. The single difference between the two units resided in their structure, the one from Britannia being *quingenaria equitata* with certainty. Although the Galls unit from Dacia Superior does not ever appear as *equitata*, considering the sizes of the Pojejena fort, one may suppose it comprised horsemen.

Subsequently, the *V Gallorum* appears in the diplomas of Moesia Superior from AD 156/7 (Chiron 2002, 420), 155/9 (AE 1998, 1617), 158/9 (ZPE 126, no. 4), 160 (CIL XVI 111) and 161 (RMD 55) and then in the Dacian diploma from AD 179 (RMD 123). I. Piso and D. Benea, the editors of the last mentioned diploma, assume that the Moesia Superior legate extended his authority north of the Danube under Antoninus Pius¹⁰⁰⁸, which would explain the Galls cohort among the troops from Moesia Superior, without having to move south of Danube¹⁰⁰⁹. Nevertheless, the cohort tile stamps were found south of Danube, more exactly at Tekija (*Transdierna?*)¹⁰¹⁰, on river's right bank, evidence of troops' frequent mobility. The last mention of the troop comes still from Moesia Superior, at Carataş (Diana), this time bearing the imperial surname *Antoniniana*¹⁰¹¹.

We cannot be precise on the period when the Galls cohort stationed at Pojejena, certain stamps of legions *VII Claudia* and *III Flavia Felix* dating in the 3rd century AD (?)¹⁰¹². On the other hand, classic stamps of such legions were discovered inside the fort, yet their date cannot be narrowed. In fact, archaeological excavations inside the fort, beside being performed on small scale, targeted firstly the last occupation phase, thus accounting for the late character of several artifacts.

¹⁰⁰⁵ These troops are *coh. I Thracum c.R.p.f.* and *coh. I Montanorum*. C. C. Petolescu argues that also *ala I Flavia Augusta Britannica* from Dacia is mentioned by both diplomas (Petolescu 2002, 67), yet in fact they are two different Briton *alae*, the one from the Pannonian diploma bearing the *Flavia* surname (CIL XVI, 164).

¹⁰⁰⁶ See discussion in Petolescu 2002, 66 sqq.

¹⁰⁰⁷ For those at South Shields see Bidwell, Speak. 1994, 155 sqq. For evidence see briefly Spaul 2000, 168.

¹⁰⁰⁸ Piso, Benea 1984, 284; Piso 2001, 230.

¹⁰⁰⁹ After Piso, Benea 1984, 284; Piso 2001, 230.

¹⁰¹⁰ Gudea 2001, 73–74.

¹⁰¹¹ AE 1994, 1511. Petolescu 2002, 108.

¹⁰¹² D. Benea and D. Protase maintain that the LEGVIICLC [*leg(io) VII Cl(audia) C(uppis)*] and LEGIIIF stamp types, without the second F are late, Benea 1983, 98; Protase 1995, 112.

30. RĂZBOIENI

The most important auxiliary troop from Dacia—*ala I Batavorum* ∞—was stationed in too little researched archeologically Războieni-Cetate fort, the troop name also borrowing its name to the neighbouring *vicus*¹⁰¹³. The fort is located by mid distance between Apulum and Napoca, at 100 km farther. Single archeological research were carried out in 1995 and 1996 by a research team from Cluj, when two trenches were dug on the northern and eastern fort sides, covering part of its interior¹⁰¹⁴. Although the excavators argue that at least three of the sides are noticeable in the field, the approximate sizes of the fortification are not provided. The available plan shows that the fort was c. 175.00 × 220.00 m (3.80 ha). It is true that only two sides of the enclosure were identified archeologically. The fort must have been large as similar surfaces are specific to 500 men-made up cavalry forts. For instance, the fort at Gilău is 3.03 ha, the one at Ilișua 3.31 ha and that at Slăveni 3.50 ha. I passingly mention that *miliariae* cavalry troops' fortifications were between 5.30 and 6.00 ha¹⁰¹⁵. Therefore, the difference between them and Războieni is too great to consider real the sizes of the latter.

Archaeological digs consisted of two trenches, dug perpendicularly on the northern and eastern sides of the fort¹⁰¹⁶. Beside enclosure phases, identified by both trenches, the archaeologists noticed three phases of the approximately 5.00 wide *via sagularis*. Behind this *via*, parts of a building deemed barracks were excavated inwards¹⁰¹⁷.

The barracks

Technical details on the structure investigated south of *via sagularis* are fairly concise and numerous and two occupation phases of the 'barracks' were noticed, two of timber and one of stone¹⁰¹⁸. Seven timber walls, certain of a rather ambiguous structure belonged to the earliest phase. Thus the two walls (named P1, P2) placed at 0.35—0.40 m distance one from the other¹⁰¹⁹ are located in close vicinity to the first *via sagularis*, being, seemingly, covered by the southern end of the second *via sagularis*. They were 0.30 m wide, hence proper walls were noticed and not their hole, which evidently had to be larger. Hence, the c. 1.00 m depth of these structures seems very interesting. It is very curious that such walls appeared like a wall foundation in profile, the walking level being somewhere by their upper limit, hence the 0.30 m width makes impossible such observation¹⁰²⁰. Further on, at 2.00–2.10 m southwards, another 0.25 m wide wall (P4) was found, perpendicular on the archaeological trench, which it

¹⁰¹³ The inscription (IDRE II 411) from Apamea in Syria proves the existence in Dacia of the *ad Vatabos* locality, probably Războieni (after IDRE p. 428), although it is not the single locality where Batavians stationed. For instance, the location of *coh. I Batavorum* station is uncertain.

¹⁰¹⁴ Bota, Ruscu, Ruscu, Ciongradi 2004.

¹⁰¹⁵ Aalen (6.07 ha); Heidenheim (5.28 ha); Rottweil (5.80 ha) or Frankfurt am Main = Hedderheim/Vida (5.20 ha), see Filtzinger, Plank, Cămerer 1976, 201, 292, 483, Abb. 48, 117, Taf. 74. In the last case, it is true that a 500 soldiers cavalry troop was supposed, camped beside another cohort, Baatz, Herrmann 1982, 279–80, Abb. 208.

¹⁰¹⁶ Although the authors numbered trenches in text S I (eastern side) and S II (northern side), the plan registers S 1 (northern side) and S 2 (eastern side), after Bota, Ruscu, Ruscu, Ciongradi 2004, 291–2, Pl. 1.

¹⁰¹⁷ Bota, Ruscu, Ruscu, Ciongradi 2004, Pl. 3.

¹⁰¹⁸ Due to the lack of archaeological material, phases chronology could not be established, Bota, Ruscu, Ruscu, Ciongradi 2004, 293–5.

¹⁰¹⁹ In order to simplify, we adopt the excavators numbering of digs. In drawing, the walls seem to be attached, suggesting rather a double wall or a post hole of two walls, without knowing if simultaneously, see Bota, Ruscu, Ruscu, Ciongradi 2004, Pl. 3.

¹⁰²⁰ See for construction techniques Hanson 1982.

crosses east to west only on a 1.40 m length, interrupting at 60 cm from the western limit of the trench. This time, the wall print appears lower compared to that of the previous walls, being also shallower than theirs¹⁰²¹. The print of another wall, sized 1.20 × 0.20 m was observed in plan between the mentioned structures, running parallel to wall P4, without reaching the trenches edges. This wall is impossible to contend. Another c. 0.15 m wide wall (P6) was observed perpendicular to wall P4 course, without intersecting it, along the western edge of the trench and slightly blocked by it. The wall seems to be interrupted on a 1.35 m portion and runs again intersecting the walls near *via sagularis*. The authors consider the interruption represented an entrance¹⁰²². They also conclude that the wall corresponded to the western limit of the ‘barracks’¹⁰²³. The compartments continue at 4.00 m southwards wall P 4 by another 0.20 m wide wall P5¹⁰²⁴. It is transversal on the trench width, running east-west, parallel to the other walls and perpendicular on wall P6. Another wall (P 7), exhibiting similar features to the above described wall was identified at approximately 4.00 m southwards, partially covered by the southern limit of the archaeological trench and a later wall. The destruction of this first phase of the building following intended (?) fire was noticed stratigraphically and a levelling clay layer of 20–30 cm thickness was placed over this occupation horizon in order to construct the second timber phase¹⁰²⁵. Regarding the building planimetry, it is impossible to say whether wall P 6 was or not the building limit. I could agree with the excavator’s supposition that the structure was a barrack, without being certain though. Thus, I wonder how this building orientation was imagined. If running east-west, then it was either a c. 100 m long barracks, the distance to the eastern enclosure of the fortification or two barracks placed one in the extension of the other existed. Evidently the first case is excluded, such sizes being impossible to attribute to barracks. The second case also seems inappropriate, as the barracks would be placed *per strigas*, rare yet possible case. Placement of two barracks one in extension to the other is specific to fortresses, whose sizes are very large. Furthermore, if it were so, the archaeological excavation could not have discovered the western limit of the barracks, simply because on its short side no entrances were identified. We also question the barrack planimetry and compartments, since three rooms, one beside the other, were found. These rooms are, as mentioned, c. 2.10 m wide and the following two c. 4.00 m. The first compartmenting is not suitable to *papilio* or to *arma*, yet it befits a portico or verandah, seldom placed along a barrack. The different construction fashion of these northern limit walls supports such theory. Here the walls thickness reaches 30 cm and I assume therefore they are post trenches and a verandah did not require a different type of support. The adjoining of these two trenches (P1 and P2) might represent the portico reconstruction at a certain point, being little narrowed or widened. Hence, it is obvious that the most probable orientation of the building is indeed *per strigas*¹⁰²⁶, a western limit of the building being possible, as the excavators believed. Yet, in this case, the entrance the authors

¹⁰²¹ It may be easily noticed in trench, although the authors maintain the opposite within the text, arguing its print may be seen at 10 cm higher than the others and that the depth is similar to that of wall P2, Bota, Ruscu, Ruscu, Ciongradi 2004, 293, Pl. 3.

¹⁰²² Bota, Ruscu, Ruscu, Ciongradi 2004, 293.

¹⁰²³ Bota, Ruscu, Ruscu, Ciongradi 2004, 293.

¹⁰²⁴ The wall width prevents us believe it was the wall ‘posts hole’ as specified in Bota, Ruscu, Ruscu, Ciongradi 2004, 293.

¹⁰²⁵ Bota, Ruscu, Ruscu, Ciongradi 2004, 293. I mention that this layer is extremely difficult to establish in profile for lack of contexts numbering.

¹⁰²⁶ I mention that the fort, hence neither the buildings orientation are not certain.

discussed was not made from outside into a room, but into a portico. The entrance into the first compartment (*arma*) was made by the interruption of wall P 4, as an entrance-adequate 60 cm span remained between it and the perpendicular wall P 6 extremity.

During the following occupation levels, the walls running along *via sagularis* preserve same course with slight differences. The most significant change consists in the discontinuance of the verandah north of the building, enlarging *via sagularis*¹⁰²⁷. Another difference is found in the construction technique of what the authors name 'walls or post holes'. During the second phase of the building, the walls post holes¹⁰²⁸ are sized 0.50–0.70 m, except for wall P 10 which is, in fact, blocked by the trench southern edge. This time a first compartment of c. 4.50 × ? m and a second of c. 3.00 m × ? were delimited. In the latter case, the post hole print of another wall (P11), longitudinal to the trench and perpendicular on walls P9 and P10, which it intersects was noticed in the eastern limit of the trench. It is not excluded that the barracks (?) orientation changed. If unchanged, I don't see why *papilio* becomes smaller than *arma*. This might have been explained if horses would have been accommodated in *papilio*, yet no mention of horse waste pits is made.

The last occupation phase identified is considered the 'stone phase', although little details regarding the walls construction technique were provided. This would have been evidently beneficial, since few stone barracks are known. We learn that the walls foundation consists of a layer of pebble bound with mortar and that the elevation preserves only one row (?) of schist stone¹⁰²⁹. 'Walls' are 0.60–0.70 m thick, those running east-west having approximately same course with the previous phase walls trenches, except for the one in the northern limit of the construction, which is c. 70 cm inward withdrawn. Thus, the surface of the first partition becomes of 4.00 m, the following being identical to the one in the previous phase. It is interesting that longitudinal (to the trench) compartmenting was no longer identified in the second, but in the first room. A 'wall' of same course with wall P6 of the first phase, without intersecting 'wall Z1' thus forming another c. 1.70 m entrance (?) was noticed.

Troop

Arguments in favour of Războieni fort chronology are few, the cavalry troop records being the most important. It was initially stationed somewhere in Pannonia Superior, attested by the diploma from AD 112 (AE 1997, 1782), the tile stamps from Puzsta Almas (CIL III 4666), while a troop *praefect* is recorded by an inscription from Adianum (CIL III 13434). B. Lőrincz maintains that the troop stationed until the beginning of Hadrian's reign at Vindobona, wherefrom it would be transferred to Dacia Superior¹⁰³⁰. The unit is attested here by the AD 136/8, 144, 157, 158 and 179 diplomas¹⁰³¹, a series of tile stamps from Războieni¹⁰³² and inscriptions recording soldiers at Apulum¹⁰³³.

Hence, we may suppose that the fortification at Războieni was constructed by the end of Trajan's reign or, more probably, by the beginning of Hadrian's reign, when several cavalry

¹⁰²⁷ It may be observed from the trench profile, see Bota, Ruscu, Ruscu, Ciongradi 2004, Pl. 3.

¹⁰²⁸ This time considered as such, Bota, Ruscu, Ruscu, Ciongradi 2004, 293.

¹⁰²⁹ On the provided profile, a single row of cobbles or stones could be noticed, Bota, Ruscu, Ruscu, Ciongradi 2004, 294.

¹⁰³⁰ Lőrincz 2001, 15, no. 2, Kat. 510. See also Piso, Benea 1984, 278.

¹⁰³¹ Petolescu, Corcheș 2002, 120–6; CIL XVI 90 = IDR I 14; CIL XVI 107 = IDR I 15; CIL XVI 108 = IDR I 16; RMD 123.

¹⁰³² IDR III/4, 78, 79 (here the stamps read *a(la) p(rima) B(atavorum) Ant(oniniana)*, after Petolescu 2002, 64).

¹⁰³³ CIL III 7800 = IDR III/5, 522; AE 1987, 829 = IDR III/5, 475.

troops are brought in Dacia¹⁰³⁴. The presence of the unit within the fort at Războieni also during the 3rd century AD is proven by stamps which seem to indicate the surname *Antoniniana*¹⁰³⁵. Beside stamps evidencing an *ala*, several tile stamps of legions from Apulum and Potaissa were also discovered¹⁰³⁶.

31. On the c. 150 × 133 m (1.99 ha) fort at **SÂNPAUL**¹⁰³⁷, we benefit of little information. Discovered tile stamps indicate that a *numerus Maurorum S(?)*, whose name was abbreviated on tile stamps as N M S (?) (retrograde), presumably stationed here¹⁰³⁸. Since the Moors were present in Dacia only starting with Antoninus Pius's reign, the 2nd century AD was considered the fort's construction 'date'¹⁰³⁹. C. Timoc's judgment, according to which the Moors troop would bear the title *n(umerus) M(aurorum) S(alinensium)* consequent surveillance of the salt mines from Sânpaul, is not entirely excluded, yet hard to prove. In fact, same idea is argued elsewhere, assuming that the letter comes from *Saldae*, the locality, deriving its name from *Saldenses*, population attested by Ptolemy¹⁰⁴⁰.

I am not sure that the troop and fort had not belonged to Dacia Inferior, yet upon its geographical position, more probably to Dacia Superior, close to Odorheiul Secuiesc and aligned to Sighișoara.

32. The fort at **SIGHIȘOARA** functioned, seemingly, only in the first half of the 2nd century AD, the civil settlement developing at some point on the fortification place. Regarding military units, the single stamp discovered mentions *legio XIII Gemina*. The sizes of the fort are 180 × 133 m (2.4 ha), suitable therefore to an *ala* or a *coh. milliaria equitata*.

33. TEREGOVA

The fortification at Teregova is located north of the fort at Mehadia. It was identified with *Ad Pannonios* on *Tabula Peutingeriana*, although the distance from Mehadia, respectively Teregova to Tibiscum indicates rather *Gaganae*¹⁰⁴¹. Single archaeological excavations were carried out in 1969¹⁰⁴², 2001, 2002 and 2004, identifying firstly the characteristics of the fortification system and parts of two buildings¹⁰⁴³. On three of the fort sides the enclosure preserves up to c. 1.50 m high, its south-western side half and especially the south-west corner of the fortification being impressive, the preserved height being up to

¹⁰³⁴ Among, *ala Siliana* and *ala I Tungrorum Frontoniana*, detached in Dacia Porolissensis (see *supra*).

¹⁰³⁵ Petolescu 2002, 64.

¹⁰³⁶ Information I. Piso.

¹⁰³⁷ For bibliography see also in IDR III/4, 193–4 or Timoc 2000.

¹⁰³⁸ IDR III/4, 254.

¹⁰³⁹ Gudea 1997, 61.

¹⁰⁴⁰ Gostar 1954, 607–10. An additional argument would be that the stamp from Craiova lacks letter S, IDR II, 173.

¹⁰⁴¹ Information I. Piso.

¹⁰⁴² The area of the eastern enclosure was researched by narrow trenches, identifying the wall and ditch afferent to the stone enclosure, Gudea 1973, 97–101.

¹⁰⁴³ CCA 2002 (2003), no. 205; CCA 2004 (2005), no. 225. Excavations from 2002 consisted of a relatively long trench dug perpendicularly on the eastern enclosure and partially inside the fort. Thus the structure and chronology of the enclosure was established, results from the interior being promising, CCA 2001 (2002), no. 207. Unfortunately, the following years showed that the layers inside the fortification were extremely poorly preserved, CCA 2002 (2003), 325–7; CCA 2004 (2005), no. 225.

2.00 m. Unfortunately, subsequent a level analysis we noticed that large part of the Teregova fortification interior is practically missing, the soil current level being largely under the earliest occupation level of the fort, although it was not visible at first sight. In case future digs would be performed, single results from large part of the fort inside would consist of the foundation trenches of the first two occupation phases' timber walls. Single areas only partially damaged by floods are the fort extremities, from the *intervallum* area, preserved over a larger spread in the fortification north-western half.

Inside the fortification, diggings targeted so far a spread near the eastern enclosure, with parts of *via sagularis*, a road perpendicular on it and of two buildings being found. *Via sagularis*, of 3.00 m average width underwent three revetment phases. This small street consistency comprised a very compact pebble layer, mixed with medium sized cobbles. The thickness of each of the three small streets is of c. 15–20 cm. Gutters were noticed only during the second use phase of the small street, which is by c. 20 cm higher than the first *via sagularis* and slightly displaced towards the *agger*. A second c. 2.00 m wide and 30 cm thick road perpendicular on the direction of *via sagularis* was found in 2002¹⁰⁴⁴. The single identified gutter is south from the road, measuring c. 95 cm. The space between this *via* and the building identified to the south is c. 3 m.

A third road, whose structure also consisted of compact pebble was found perpendicular on *via sagularis* as well, yet the pavement was made of bricks and reused tiles, being at first sight very similar to a floor. Its width is 3.00 m and has 40–50 cm thickness, being used in all occupation phases of the fort, yet the small street revetments could not be clearly distinguished. This road ran east-west starting from *via sagularis* from, being the intermediary space between the two buildings identified at Teregova to this point. The distance between *via* and the buildings is insignificant, the constructions being practically adjacent to the road.

Interior buildings

A building with c. 8.50 m total width and unclear length was discovered north *via sagularis* and west of the small street perpendicular on it. The structure had three phases, being made, during the first two, of wattle and daub and provided with 20–25 cm walls placed in c. 40–50 cm wide and over 50 cm deep post trenches. In the third timber and daub phase, the walls had almost 1.00 m foundation, made of three-four cobble rows. Unfortunately, the last phase walking level seems to have been entirely lost to floods¹⁰⁴⁵. During all phases, walls are following same course, the second construction phase of the building being in fact a repair of the first, consisting of walls revetment and walking level hightening¹⁰⁴⁶. This phase ends due to fire, without knowing if it was purposefull or the result of hostilities. In the south-western corner of the barracks, a circular kiln of 1.00 m diameter and c. 25 cm thick walls was identified. In close vicinity of the described kiln, a larger sized kiln of c. 2.50 m diameter and 50 cm wide walls was iniatilly discovered. Inside the kiln, obviously part of its structure, three bricks and other two brick halves placed recumbent one beside the other at c. 30–40 cm distance from the kiln wall inner edge were found¹⁰⁴⁷. Inside same room, yet in the north-

¹⁰⁴⁴ It was assumed *via principalis* (CCA 2002 (2003), no. 205.), yet the road thickenss does not correspond to the fort main road. The entire width of the latter was not found.

¹⁰⁴⁵ It was believed initially that the destruction was caused by amateur archaeologists, CCA 2002 (2003), no. 205.

¹⁰⁴⁶ For a detailed description of the walls see CCA 2002 (2003) and CCA 2004 (2005).

¹⁰⁴⁷ An identical kiln was found in a room from the fort at Exeter, Bidwell 1980, Fig. 41.

western corner, a small 50 cm diameter fireplace, which practically cuts the P2 and P3 walls holes, was discovered. Obviously, not all kilns are cotemporary, the two in the room corners being the earliest stratigraphically.

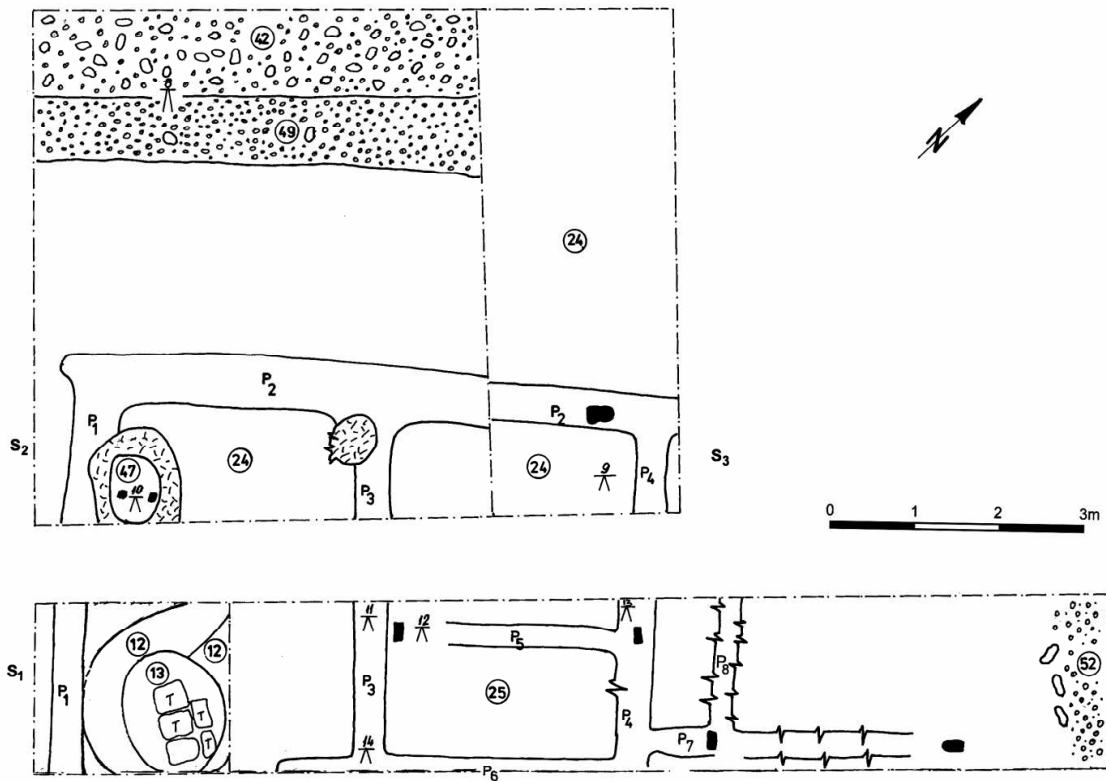


Fig. 34

Initially, the first two excavation campaigns unearthed a row of three apparently sized 4.00×3.50 subdivisions, placed approximately north-south, of a building deemed barracks. Subsequently, east of the first row was noticed another row, representing structures that might have been *contubernia*. Nonetheless, the 2004 diggings did not identify the structure southern end from *via sagularis*, the excavation not being perfectly perpendicular and failing to precisely start from the 2001 and 2003 trench S1 edges. Within this spread of the researched surface, two walls of the last occupation phase were partially identified, with a base comprising cobbles not bound with mortar which evidently carried a timber superstructure. The observed *via sagularis* limit represented the eastern extension of what was previously named Z 2, the wall discovered during the first campaign of 2000's¹⁰⁴⁸. The other wall is perpendicular on the first and represents the eastern limit of the entire edifice. In previous years, it was noticed that although the building walls had same alignment during all phases, the post hole of the timber wall in the southern limit were displaced by half meter towards *via sagularis* compared to the wall on sill wall. Thus, since the southern limit of the last occupation phase was precisely on the trench edge, it was impossible to identify the extension of the wall trench from the southern limit of the previous phase. Among the compartments that seem to have existed east of those mentioned, the first, partially delimited by the sill wall, was clearly identified. The distance between the dug trenches was c. 1.00 m, hence both identified one and the same

¹⁰⁴⁸ See the campaign from 2002, CCA 2002 (2003), no. 205.

structure¹⁰⁴⁹. The first room in the building southern limit did not seem to be divided, since the east-west wall (P 6), which should have represented the partition, was uncovered only on half of its length. It was hard to identify, yet in trench it was clear that the wall trench extending from north ended sharply¹⁰⁵⁰. In the northern compartment, this wall was evidently the longitudinal wall running by mid construction. Hence, the first room, sized c. 8.00 × 3.50 m, was originally heated with the aid of the fireplace and kiln in the corners, and later by the larger kiln from mid southern side. Farther northwards, approximately equally-surfaced compartments typical for *contubernia* divided into *papiliones* and *arma*, would have been normal. However, situation is confusing here as well. In 2002, another partition wall (P 5) interrupted on c. 70 cm a distance, thus forming an entrance, was noticed in the second room of the building western half¹⁰⁵¹. Therefore, other two small rooms sized c. 2.30 × 3.50 m (8.05 m²), respectively 1.60 × 3.50 (5.60 m²) resulted. The last is obviously an access hallway to the western room, by the mentioned entrance. Onwards, circumstances further complicate since the occupation layer is increasingly hard to distinguish due to flood destruction and even wall trenches are hardly noticeable.

Hence, *contubernia* are not clear, thus neither the general orientation nor the edifice purpose are certain. The barracks (?) could be placed either *per strigas* or *per scamna*. I suppose, upon rooms' location, that if the structure were barracks, then the officer's rooms would have been placed in this area. Unfortunately, in the relatively large area of 3.00 m between the building and the road in the north, no archaeological element was observed. The usual width of barracks verandahs with other forts of the Empire is between 1 and 2.5 m, thus it might be assumed here as well. However, if officer's rooms are set in this area, usually by the barracks end from *via sagularis*, they are not projecting outwards, therefore the portico could not have been north of the building. It is certain though, that the structure was not alongside *via sagularis* as presumed¹⁰⁵², but perpendicular on it.

Another building was positioned behind the road paved with brick fragments¹⁰⁵³. From the construction layout, a single room, almost complete and the beginning of another in extension of the first, to the north were unveiled. The building western extremity was not identified here either, yet considering the c. 9.10 m distance between the fort's enclosure wall and the trench edge, it is very likely that its limit was under the trench margin. Therefore, the timber-walled room was sized c. 3.00 × 3.20 m. There is no certainty that the phases of the buildings placed on both sides of the paved road corresponded, as east of the road no clear print of the last phase walls could be identified, probably due to floods disturbing this area as well. However, both the interior stratigraphy and the walls construction technique seem to be identical on both sides of the road during the first two timber phases.

Specific to the demolition layer of the second occupation phase, east of the paved road were observed a dark soil alveolate shaped layer, comprising fragments of burnt daub and sherds, replacing previous layers on a portion, a partition wall and partially the south-west corner of the building¹⁰⁵⁴. Additionally, another late chronological element in the form of an

¹⁰⁴⁹ A partition wall (P3) observed initially in 2002 (CCA 2002 (2003)) extends in the surface excavated during 2004 (CCA 2004 (2005)).

¹⁰⁵⁰ We believe this ditch was initially extended here by Romans default, CCA 2002 (2003), no. 205, pl. 1.

¹⁰⁵¹ For details see CCA 2002 (2003).

¹⁰⁵² CCA 2002 (2003), no. 205.

¹⁰⁵³ CCA 2004 (2005).

¹⁰⁵⁴ The context is similar to waste pits identified in mixed barracks of auxiliary forts, yet their filling (Sommer 1995, *passim*) is different to that from Teregova.

over 1.00 m diameter pit, eliminating all elements of previous phases, was noticed in the vicinity of the discussed pit. It was filled with cobbles and brick and tiles fragments. Few sherds and two coins dated under Hadrian, respectively Antoninus Pius belong to this context.

Unfortunately, other certain datable materials were not found at Teregoava, except for a coin issued in the 1st century AD, found on the first phase floor of the building west of the paved road.

The walls construction technique

It is hard to specify anything on the construction technique of the building last phase. It clearly consisted of a timber superstructure carried by a base formed of cobbles bound with earth. However, in 2004, especially in the building east of the road paved with bricks, a few very suggestive construction details surfaced. Thus, it became obvious that during the first two occupation phases, walls were entirely made of timber, the construction technique of both buildings being probably that of posts placed in post trenches. Regarding this structure, easily visible in excavation, the posts, respectively the walls are adjacent to the eastern limit of the post trench. Thus, the wall facing the road was supported by the interior edge of the room, while the opposite was supported by its exterior edge. It is one of the most diffused construction techniques, the stability of a post carried at least in one part by compact, un-dug soil being safer¹⁰⁵⁵. Since excavations failed to identify post holes and trenches prints, it is not excluded that the partition wall (P8), creating a subdivision, was made of sleeper beams carrying the uprights.

Due to little available time, trenches were not fully excavated, so it was impossible to establish the accurate position of the posts, however, when carried out, posts were placed at c. 1.00 m one from the other. The relation between walls P11 and P12 clearly confirms that this construction was equipped with posts placed in post trenches. It was noticed that the walls trenches did not intersect, nearing at c. 20 cm distance. This would have been possible only if the building structure consisted of posts placed in trenches, the extension of trench P12 into P11 not being required. For building stability, it did not happen in the corners of constructions where thicker posts were necessary to carry the two intersecting walls. It may be definitely observed in the south-western corner of the building west of the paved road.

The similarity of walls construction techniques of the two buildings is confirmed by the kilns positioning in the south-western corners of the structure west of the paved road. They are erected in building corners, yet their walls prints practically cut the timber walls trenches. Unfortunately, due to flood damages, we could not observe the walls effective structure, like in the case of the building east of the paved road. Still, they were definitely adjoined to the outer edge of post trenches, otherwise the kilns would have been made in or through the walls, most unlikely. The single portion of burnt wattle and daub wall observed in the building west of the paved road was P 3, clearly placed on the edge of the trench found when deepening¹⁰⁵⁶.

Troop

The main military unit attested here is *coh. VIII Raetorum*¹⁰⁵⁷. The troop is mentioned in Dacia by the diplomas of AD 109, 110 and 179¹⁰⁵⁸ and seems to be present under Hadrian at

¹⁰⁵⁵ Hanson 1982.

¹⁰⁵⁶ Archaeological digs were performed by a team composed of I. Piso, F. Marcu and A. Ardeț.

¹⁰⁵⁷ See Macrea 1960a.

¹⁰⁵⁸ CIL XVI, 57 = IDR I 2; CIL XVI, 163 = IDR I 3; RMD 123. The troop does not seem to be recorded within the diploma of Nova Zagora from AD 144 (CIL XVI 90 = IDR I 14), as shown by J. Spaul (Spaul 2000, 287), see for correction Țentea, Matei-Popescu 2004, 291.

Inlăceni where it is recorded by an inscription from AD 129 (IDR III/4, 263 = AE 1960, 375). Here, the cohort is mentioned as *quingenaria* and *equitata*. The single *coh. VIII Raetorum* stamp discovered in the excavations from 2001, was identified on the third *via sagularis*, hence on what was deemed last occupation phase of the barracks. Additionally, following 2004 excavations, other 10 tile fragments bearing the *coh. VIII Raetorum* stamp surfaced, yet this time, they were part of a small street paved with brick and tile fragments, being therefore reused¹⁰⁵⁹.

I presumed above that the troop of *Raeti* could have been probably stationed initially at Mehadia, as tile or stamped brick fragments evidencing it at Teregova were discovered either in secondary position or reused for the pavement of the road identified in 2004. Therefore, it is hard to decide whether the troop stationed here or in the fort at Mehadia after leaving the fort at Inlăceni.

Within the last occupation horizon identified also on *via sagularis* was found another tile stamp having incised the letters MAG, a unit still unknown, which could have been present in the fort at Teregova during its last occupation phase.

34. TIBISCUM

The situation from Jupa-Tibiscum where a total number of five forts (pl. 21), obviously not all contemporary, were identified, is very interesting. Initially, by the beginning of the 2nd century AD, probably between the two wars, a 60.00 × 60.00 m (fort I) fortification existed, followed in the same area by another fort sized 110.00 × 101.00 m, initially of timber and earth and then of stone (fort II). Within site reports, D. Benea and P. Bona take into consideration the dating elements as well, thus reaching the conclusion that the existent fortification was erected under Trajan and remade under Hadrian¹⁰⁶⁰. In the 90's, at a distance of 15.00 m south of the southern side of the 'small' stone fort, a spread of the enclosure of another fort extending south-west (fort III) was identified¹⁰⁶¹. Archaeologists maintain this fortification is one and the same with that found in 1984, observed under the western enclosure of the 'large' fort at Tibiscum, deeming factual the contemporaneity of forts I, then II, with fort III¹⁰⁶². The existence of the second fort was considered certain although the archaeological excavations identified only part of the enclosure. By mid or in the second half of the 2nd century, the two neighbouring forts were incorporated and replaced by a larger size fort (fort IV)¹⁰⁶³. The southern side of the large fort was destroyed by river Timiș.

The complex situation from Tibiscum is added a novel element, when a new fort (fort V), located on the other bank of river Timiș, at c. 600 m distance eastwards the already known

¹⁰⁵⁹ Only one stamp could be entirely restored out of two tile fragments, the name being abbreviated as COH VIII R, alike previous stamps.

¹⁰⁶⁰ For previous bibliography see Bona, Petovszky, Petovszky 1982, 311. The monograph of the forts at Tibiscum is evidently beneficial, yet the text understating is often hindered by the lack of corresponding plans and dimensions, Benea, Bona 1994, 32, 36. The construction of the small stone fort is dated under Hadrian based on towers shape. Or, the towers rectangular shape, even though not outward projecting, is not an accurate dating element, being characteristic to the second century in general and even to the beginning of the 3rd century (see the fort at Bumbești). In fact, even within the complex at Tibiscum the towers of the large fort gates, erected most early in the second half of the 2nd century are similar to the gate towers of the smaller fort.

¹⁰⁶¹ I am thankful to E. Nemeth for this information.

¹⁰⁶² Benea, Bona 1994, 37. For previous research at Tibiscum see contributions from Bona, Petrovsky, Petrovsky 1982; Bona, Petrovsky, Petrovsky, Rogozea 1982; Bona, Rogozea 1985.

¹⁰⁶³ The archaeologists consider the fort was erected under Antoninus Pius, probably by the end of his reign, Benea, Bona 1994, 38. See also Marcu 2009.

forts, was discovered¹⁰⁶⁴. According to the information provided by the excavator, A. Ardeț, the new fort endured for a short while sometime during the 2nd century AD, being replaced by the civil settlement¹⁰⁶⁵. Since archaeological digs are insufficient, it is hard to say which was the garrison troop and if the recently discovered enclosure belongs to a fort or to part of the second civil settlement enclosure in the area.

The dating of the forts at Tibiscum is doubtful as the excavators considered the fortifications chronological succession according to forts numbering, yet this situation is not at all certain¹⁰⁶⁶.

Regarding the internal planning of these forts, except for the large fort (fort IV) single elements known are in connection to fort II. Thus, the archaeological excavations of the 80's identified the main roads inside the fortification, part of the headquarters building and parts of a few barracks. The plan of the headquarters building could not be specified as it was sondaged only in the first courtyard area. As *via principalis* enlarges considerably in front of the headquarters building¹⁰⁶⁷, we may suppose here a *basilica exercitatoria*, although other identification elements or a coherent building layout do not exist. Accommodation barracks were found in *praetentura dextra*, respectively *retentura dextra* of the fort. These constructions are made of wattle and daub, the walls framework being made of timber posts placed probably in individual holes. The widths of the three identified barracks vary between 6.20–7.50 m. Unfortunately, further details concerning these barracks are not available and publications did not provide any plan.

The 4.50 m (*via praetoria* and *decumana*) or 3.90 m (*via principalis*) widths of the roads inside fort II are usual.

Hence, single constructive elements referring to the interior of the small fort with stone enclosure come from *retentura dextra* barracks. Post holes of three barracks placed *per scamna* were observed. First of the barracks is located at 9.50 m from the northern enclosure wall and is 7.15 m wide¹⁰⁶⁸. It is timber-made, with posts placed in individual holes at a distance of c. 2.00 m one from the other. Further southwards, after a 1.00 interval where an alley existed, a second barrack, this time 7.50 m wide, was noticed made according to the same technique as the first¹⁰⁶⁹. Parallel to it, after a paved interval of another 2.70 m, the third 6.20 m wide barrack is located. The excavators consider the barracks length of c. 42.00 m, because the distance between their short eastern sides and *via decumana* is 1.60 m. Nonetheless, the single plan available with measuring grid¹⁰⁷⁰, clearly shows either that the building sizes are not real or the grid is reduced to half of real dimensions¹⁰⁷¹.

¹⁰⁶⁴ After Ardeț, Ardeț 2004, 38 sqq., Fig. 1.

¹⁰⁶⁵ The internal planning of the fort is also described, yet information is partial and plans unsatisfactory, Ardeț, Ardeț 2004, 45 sqq. It is not at all certain this is the fort *retentura*, or that timber uprights trenches belong to barracks, without knowing further technical details on sizes, for instance.

¹⁰⁶⁶ I believe the excavators were influenced by the discovery succession of the forts, without considering other stratigraphic criteria.

¹⁰⁶⁷ Benea, Bona 1994, 35.

¹⁰⁶⁸ Benea, Bona 1994, 35.

¹⁰⁶⁹ Benea, Bona 1994, 35–6.

¹⁰⁷⁰ In Gudea 1997d, No. 17. Neither plan provided by the excavators indicates this measuring grid, while the 110.00 × 101.00 m sizes of fort III are mentioned only in the introductory chapter, see Benea, Bona 1994, 18, Fig. 4, 5, 7.

¹⁰⁷¹ Probably, both building sizes and the measuring grid are erroneous, obvious if we attempt correlation between provided sizes and sizes from the plan, see Gudea 1997d, 33.

The brick with AIM stamp or the MASY abbreviation imbrice, of civil character, were found in secondary position¹⁰⁷², as such it is useless to establish the fort garrison based only on them.

First systematic excavations in the large fort were initiated in 1984, targeting primarily the western enclosure¹⁰⁷³ and continue intermitantly until the present¹⁰⁷⁴.

Regarding the street network of fort IV, single information regard *via sagularis* and *via principalis sinistra*, which was 7.75 m wide¹⁰⁷⁵. Due to the large fort form, the main road length, reaching c. 150 m is unusual, *via principalis dextra* being evidently even longer. *Via sagularis* is c. 4.80 m wide.

Fort IV. Principia

The sizes of the headquarters building are 31.50 × 36.00 (1134 m²), adequate to these construction types¹⁰⁷⁶, yet the proportion it occupies from the total surface of the fort is unusual, being of only 1.87%, while the length/width ratio is of 0.87. Headquarter buildings with the long side on basilica's direction and not the opposite were identified in rather few forts from other provinces. One of the earliest timber buildings exhibiting this shape is that from the Neronian fort at Nanstallon, in southern Britannia, yet the excavators failed to explain the reason for which the building looked that way, as the fort had common sizes and shape¹⁰⁷⁷. At almost a century distance, a similar building is constructed in the fort at Mumrills, on the Antoninian Wall¹⁰⁷⁸. However, the building plan corresponds to the fort plan, shaped like a flat playing card, attached to the Antoninian Wall. Moreover, at Mumrills the reverse prolongation of the headquarters building is given especially by the attachment of very long seemingly undivided spaces on the structure sides and back.

The entrance consists of a simple opening in the building front wall, thus forming an inner as wide as the entrance lobby by the location a portico inside the courtyard at some point, the open space of the first courtyard remaining practically reduced to this lobby. The excavators argue that during a first phase, the inner walls of the rooms bordering the courtyard are not related to the front wall of the building and therefore the entrance would consist of 21.60 m wide span, located between the side rooms¹⁰⁷⁹. Archaeologists maintain that the front wall of the building was attached between the rooms flanking the courtyard at later date¹⁰⁸⁰. The authors drew this conclusion based on the fact that the walls did not seem to be erected at the same time, alike almost all known headquarters buildings, yet this does not represent a different chronological element. More precisely, the headquarters building construction started with the *aedes*, the most important room of the building, progressing with the other rooms in the back and other parts of the building. Therefore, the difference the archaeologists noticed at Tibiscum does not necessarily have a chronological relevance. On

¹⁰⁷² Benea, Bona 1994, 33.

¹⁰⁷³ Benea, Bona 1994, 38.

¹⁰⁷⁴ The last site report was published in CCA 2003 (2004), no. 95.

¹⁰⁷⁵ Benea, Bona 1994, 42.

¹⁰⁷⁶ A detailed description of the building was made in Benea, Bona 1994, 44–9.

¹⁰⁷⁷ Fox, Ravenhill 1972, 56 sqq. A. Johnson cannot explain the 'odd' shape of the building, Johnson 1987, 272.

¹⁰⁷⁸ Johnson 1987, Abb. 205.

¹⁰⁷⁹ Benea, Bona 1994, 44, Fig. 19. This situation is very curious by its uniqueness, yet it is unlikely. As proof, the bases of the portico walls do not start in the entrance area, but after a few meters interval, meaning that the portico started theoretically inwards having no support in the area of the building gable.

¹⁰⁸⁰ Benea, Bona 1994, 44.

both sides of the entrance, the walls have dissimilar lengths, in the southern part being by c. 1.20 m shorter. For this reason the span is not placed on headquarters building axis, being displaced southwards. Curiously, the excavators noticed that this entrance corresponded to the southern lobby of gate *praetoria*¹⁰⁸¹. Flanking the span, two bases of 2.00 × 1.10 m were investigated, suggesting they represented a massive arch bases¹⁰⁸². It would have been useless should the entrance be a simple opening into the front wall. Therefore, the portico bordering the inner courtyard probably ran behind the front wall as well, access being made at least through the portico¹⁰⁸³. The larger sizes of the column bases from the entrance are justified, the roof being here higher.

The inner courtyard, sized 15.00 × 21.60 m (324 m²) is flanked by porticoes and rooms on two sides. It occupies 28%, yet subtracting the porticoes width, we obtain only 14%¹⁰⁸⁴ the common proportion being 25%.

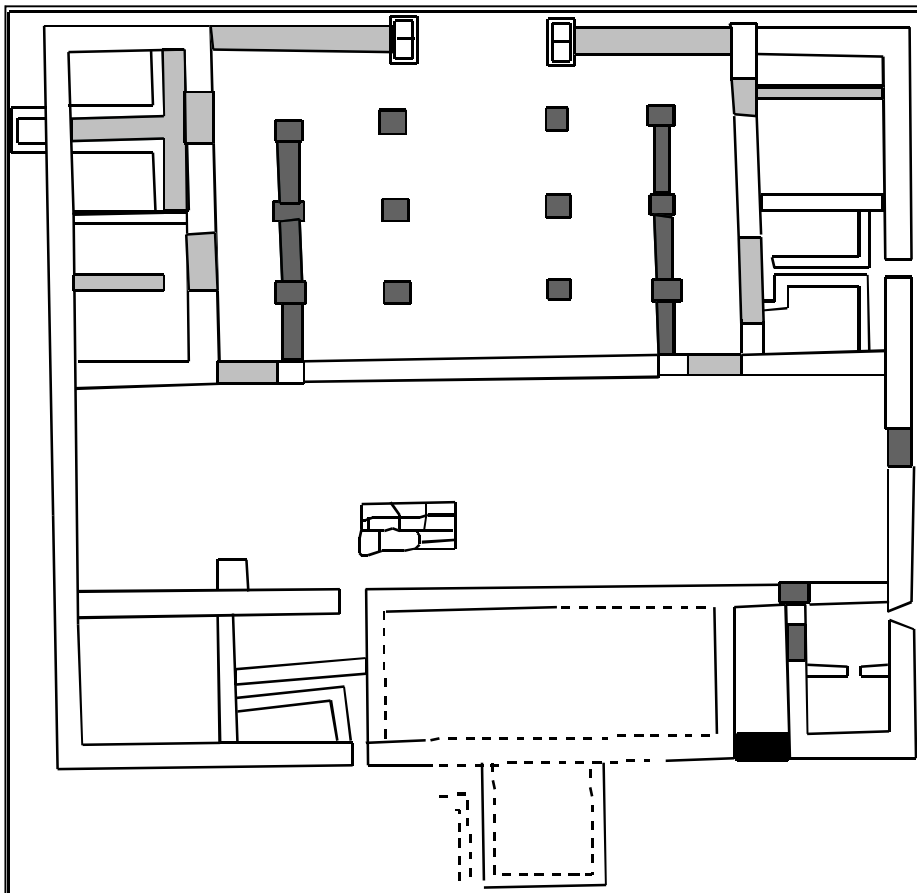


Fig. 35 a

¹⁰⁸¹ Thus, the authors date the accomplishment of the portico and implicitly of the front wall in the first half of the 3rd century AD, when the northern lobby of gate *praetoria* was supposedly blocked, Benea, Bona 1994, 40, 45. It is indeed possible that this was the reason that the entrance into *principia* deviated, yet the dating remains uncertain.

¹⁰⁸² D. Benea and P. Bona assume an 'imposing portico' by the entrance, Benea, Bona 1994, 45.

¹⁰⁸³ The fact that column bases west of the entrance into *principia* are not perfectly symmetrical with those from the entrance is of no great relevance here, as access was not made by hallway but by open portico.

¹⁰⁸⁴ It is obvious should we compute the ratios upon the sizes provided in Benea, Bona 1994, 45. Yet, these sizes are rather inaccurate. Thus, the authors argue that the sizes of the courtyard are of 21.60 × 15.00 m, and without the porticoes on the northern and southern sides of only 14.00 × 11.60. Therefore, I conclude that these porticoes would have been c. 3.30 m (2.80 m Benea, Bona 1994, 45) wide, yet I do not see why the east-west sizes of the courtyard are not similar in both cases since, according to the authors, no porticoes existed on the eastern or western sides.

As mentioned, the first portico is possible to have bordered also the eastern inner courtyard so that column bases located on both sides of the entrance would have any meaning. It is very interesting though that the portico was much enlarged at some point thus creating an open lobby precisely the size and extension of the entrance into *principia*. The excavators believe these column foundations, three on each sides of the courtyard, represented statue or monuments bases¹⁰⁸⁵. I disagree, however since statue bases within forts are placed approximately in the courtyard centre, or, by analogy with city forums, by the courtyard extremities¹⁰⁸⁶. Or, foundations sizes in the courtyard at Tibiscum are c. 1.00 m² and similar to column bases identified in the forts at Wallsend or South Shields¹⁰⁸⁷. It is difficult to conceive the appearance of the headquarters building courtyard in this phase. The former stylobate was further used, otherwise the portico would have become 7.60 m (in the northern part), respectively 6.40 m (in the southern part), which is unlikely. Therefore, two options come into view: either a portico whose roof was carried by two parallel column rows or half of the portico space was used for different purposes. The chronological relation between the initial *stylobat* and these column bases is impossible to establish, yet considering that inside the former portico, behind the *stylobat*, a mortar floor (?) is placed at certain point, I suppose this space would be eventually closed¹⁰⁸⁸. The excavators consider that these compartments become 'living' areas¹⁰⁸⁹, yet the eastern ends of the so-called walls stop abruptly, without connecting the outer wall of the side rooms or the headquarters building front wall, ending at few meters from the latter. It is hard to believe that the free space left constitutes an entrance, as it is c. 3.00 m wide. Other entrances into the headquarters building were not observed because little was preserved from the walls foundation. Probably, a sort of storage rooms was designed. Their necessity would be confirmed by the large number of soldiers at Tibiscum. On the other hand, if this space is closed, I don't see how access was made to the back rooms, which bordered the courtyard from the very beginning. Hence, the chronological situation might be the reverse. As such, there was an initial unusual wide portico, possibly covered considering the large column bases. Subsequently, it might have been discontinued, the courtyard enlarged and new column bases placed on a *stylobat*¹⁰⁹⁰. A similar example is found in the fort at South Shields where at some point, the front portico was narrowed from 6.00 to 3.50 m due to the roof heightening¹⁰⁹¹. It is not excluded that this would be the case at Tibiscum as well, the final result being the creation of a storey.

The sizes of the rooms bordering the headquarters building courtyard are of c. 30 m². Customarily, the four compartments flanking the courtyard, two on each side, functioned as *armamentaria*, yet sometime in the 3rd century AD they would change utility or would only

¹⁰⁸⁵ Column bases placed on a *stylobat* were considered possible statue bases or monuments, yet the analogies with the forts at Dura-Europos or Potaiissa (Benea, Bona 1994, 45, Fig. 20) have nothing to do with the situation at Tibiscum, as there, they are bases of large statues located in the courtyard central area as it was the rule in city foras.

¹⁰⁸⁶ However, to my knowledge, such discoveries do not come from auxiliary troop forts.

¹⁰⁸⁷ Bidwell, Speak 1994, 62, 64; Taylor 2000, 51.

¹⁰⁸⁸ The archaeologists concluded this floor supposed a covered space (Benea, Bona 1994, 45), true indeed, except this space deemed portico, was obviously covered even when the 'pavement' was pebble-made.

¹⁰⁸⁹ The reason for this change is inconsistent, being based on the observation that the space between the two column bases, placed on a wall (*stylobat*) was built-in, Benea, Bona 1994, 47.

¹⁰⁹⁰ The fact that passages toward basilica were identified in front of these porticoes, contradicts the author's conclusion that such spaces become habitable.

¹⁰⁹¹ Taylor 2000, 27.

become more comfortable. Two of them would be provided with lobbied heating system¹⁰⁹². It is hard to imagine that if these rooms ever were storage rooms, they preserved such function including when a hypocaust¹⁰⁹³ was added. Some of the rooms delimiting the headquarters building could have been store houses of other objects than weaponry, like the case of room B, located in north-western courtyard, where a large *mortarium*, filled with iron and lead pieces was found¹⁰⁹⁴. In fact, *armamentaria* stored projectiles instead of proper weapons or equipment in general.

Basilica is sized 36.00 × 8.00 m (288 m²). Passage from courtyard to the basilica could have been made by arches, two of the columns being carried by the western ends of the mentioned *stylobat*. Yet, an over 5.00 m span would be developed, therefore due to higher *basilica*, I suppose at least two additional column bases in the area. But, a wall between *basilica* and the courtyard was identified here, yet it was assigned to a later phase of the building¹⁰⁹⁵. Evidently, this wall was also a *stylobat*, which must have carried column bases. Access from courtyard into the *basilica* were discovered, one entrance each by the western ends of the porticoes and another on the short southern side of the basilica. A tribunal was not identified here, although the wall similar to a buttress which seems to be in the extension of the southern wall of the north-western corner room may suggest a tribunal¹⁰⁹⁶. The structure's oblong aspect is given by the headquarters building shape. Approximately on the building axis, slightly displaced northwards and at 1.60 m from the back rooms, a large statue base (4.00 × 2.00 m) was identified¹⁰⁹⁷.

Back rooms. Five compartments were identified in the back side. The 'central' room measures 14.00 × 6.60 m, being deviated from the building axis. Its sizes are very large compared to other dimensions from forts in Dacia, therefore it must have been divided. From south to north, the rooms located on both sides of the entrance are sized 6.60 × 5.50 m (room E), 6.60 × 2 m (room F), 5.50 × 5.80 m (room H) and 6.80 × 6 m (room I)¹⁰⁹⁸. Plaster pieces with painting traces were uncovered inside the last room. By its centre, a 'mortar bound brick altar, sized 1.60 × 1.60' was identified on a clay floor¹⁰⁹⁹. It consisted of a '12 bricks covering placed by 3, while the border was made of a bricks row placed on edge'¹¹⁰⁰. Much ash and animal bones were discovered all over the room. I regard its description as of great importance believing it is unique within the Empire, consequently I deplore the lack of any graphical record or pictures. The structure's cult function is doubtful¹¹⁰¹.

The second southward compartment is also very interesting (room F), which, according to its sizes, could be a hallway. Which was its purpose is hard to say, yet analogies

¹⁰⁹² *Hypocaust* systems were added in rooms A and D. Dating was made based on bricks stamped *coh. I Vindelicorum* and the reuse of an inscription dedicated to Minerva for the health of two emperors, see Benea 1985, *passim*; Benea, Bona 1994, 45–6, Fig. 20.

¹⁰⁹³ D. Benea, P. Bona make no differentiation between the rooms, considering they were 'theoretically' *armamentaria*, Benea, Bona 1994, 47.

¹⁰⁹⁴ This material was probably gathered for metal melting and reuse, see Benea, Bona 1994, 46.

¹⁰⁹⁵ This wall makes the archeologists argue that the basilica was covered in a later phase, Benea, Bona 1994, 47, Fig. 20.

¹⁰⁹⁶ See Benea, Bona 1994, Fig. 20.

¹⁰⁹⁷ Benea, Bona 1994, 48.

¹⁰⁹⁸ It is impossible to imagine the 5.50 m span of room H, as observed by the excavators, Benea, Bona 1994, 48.

¹⁰⁹⁹ Benea, Bona 1994, 49.

¹¹⁰⁰ Benea, Bona 1994, 49.

¹¹⁰¹ The main argument is the ash and animal bones discovered inside, Benea, Bona 1994, 49, n. 59.

with other forts from Dacia, provide for an access staircase to a storey. Nevertheless, a threshold was found back on the short western side, making the excavators believe that passage to the back of the building was made through there as well¹¹⁰².

Another c. 20–25 m² room seems to have been attached at some point west of the middle room, in the back¹¹⁰³.

The headquarters building from Tibiscum shape is, as mentioned uncommon, however it could be explained, alike in the fort at Mumrills, by the fort layout in the form of a ‘playing card’, placed reversely, with a short *via praetoria* and a very long *via principalis*. On the other hand, its proportion within the fort is evidently extremely reduced. The smallest percentages, of minimum 3.30% of the total surface are found with infantry troops’ forts¹¹⁰⁴. I believe this building was that small because it was initially part of fort III, in other words of the latest fort discovered south of the small stone fort (fort II)¹¹⁰⁵. It is possible that when *coh. I sagittariorum* dedicates in AD 165 an altar to Marcus Aurelius¹¹⁰⁶, the headquarters building was still part of fort III, quartering the mentioned troop. The inscription was reused when the stone headquarters building was revetted or repaired.

Schola1 (?)

The excavators deemed *schola* a building oriented NE-SV, sized 28.80 × 6.80 m and almost 196 m² surfaced (fig. 35) identified in the fort north-eastern corner¹¹⁰⁷. The building is at 0.40 m distance from the eastern enclosure wall, therefore over the 5.50 m wide *agger* and partially over the 5.75–7.00 m wide *via sagularis*¹¹⁰⁸. Its chronology is hard to appreciate, yet the excavators considered it a late structure based on its position¹¹⁰⁹. The 2.60 m entrance into

¹¹⁰² Benea, Bona 1994, *passim*.

¹¹⁰³ See Benea, Bona 1994, Fig. 20.

¹¹⁰⁴ Pitts, St Joseph 1985, Table 1.

¹¹⁰⁵ On the contrary, where several garrison troops existed, the headquarters building occupies rather little of the fort enlarged surface, like at Vetera (1.95%) or even Porolissum (1.30%). However, the *principia* of fort III might have existed here. The excavators do not question such fact, stating that under the known *principia* a previous layer, belonging to fort III was identified and that a clay arrangement was placed over in order to construct the large fort headquarters building, Benea, Bona 1994, 44. Obviously, the building first phase could have been timber-made, therefore hard to observe in excavation.

¹¹⁰⁶ IDR III/1, 130.

¹¹⁰⁷ See the building description in Benea, Bona 1994, 50.

¹¹⁰⁸ For measurements see Benea, Bona 1994, 39.

¹¹⁰⁹ The precise dating of certain artefacts discovered by M. Moga, whose description consists in the simple mentioning of the object type, seems artificial, see Benea, Bona 1994, 50. See for other items from here Piso, Benea 1999, *passim*. Available chronological data are not encouraging, the archaeological situation being rather ambiguous. Indeed, the building seems to be later, yet I do not understand why the doubling of the enclosure wall, a rudimentary wall located at 0.40 m from the main enclosure wall, overlaps partially the building floor. This wall was identified by M. Moga at 5.00 m from the eastern enclosure wall, arguing its existence only on the fort eastern side and only in the north-eastern corner up to *porta praetoria* of the large fort, see Benea, Bona 1994, 39. Further on, M. Moga maintains this wall was interrupted in front eastern gate of the former smaller stone fort (fort II), essential fact, I believe. Although the excavators maintain this gate was blocked once with the enlargement of the fort (Benea, Bona 1994, 39), the interruption of the enclosure doubling wall is significant, considering this gate remained in use at least for a while. The fact is evidently justified by the very large sizes of fort IV, the distance from the northern enclosure to *porta praetoria* being of 150 m. Moreover, I do not believe that the exact alignment of the buildings in the fort north-eastern corner to the former road running through the eastern gate of the small stone fort is incidental. In fact, previous site reports mentioned this gate continued to be used also in the period of the enlarged fort since ‘there are no blocking traces (Bona, Petovszky, Petovszky 1982, 314). I do not understand the later opinion change.

the building was made on the short southern side by a 3.20 m wide small portico, the floor being made of brick bound with mortar. The portico comprised four column bases, those in the extremities being by the ends of the building longitudinal walls, which extended to outer portico. These pilaster foundations (*antae*) of 0.80×0.80 m are rather large, therefore they might have carried arches. Thus, three entrances were created, one 2.60 m wide in the centre and other two c. 1.80 m on the sides.

Initially, the building seems to have been partitioned in two by a transversal wall located approximately by mid building¹¹¹⁰. Subsequently, the brick floor overlapped the two walls, hence the building becomes one of basilica type, rather long and narrow. It is not certain the building had same function during all occupation phases. As the building structure was different, I would say no. Nevertheless, due to little available information, its function is hard to establish. The building was dated by mid 3rd century AD, however we are sure on its construction date. Among discovered archaeological materials count marble pieces decorated with vegetal motifs, 'votive plates' and MID-stamped bricks, similarly stamped bricks from the building pavement¹¹¹¹, probably reused. Compared to the other western buildings, this structure is slightly withdrawn northwards, not being perfectly aligned to the road by the eastern gate.

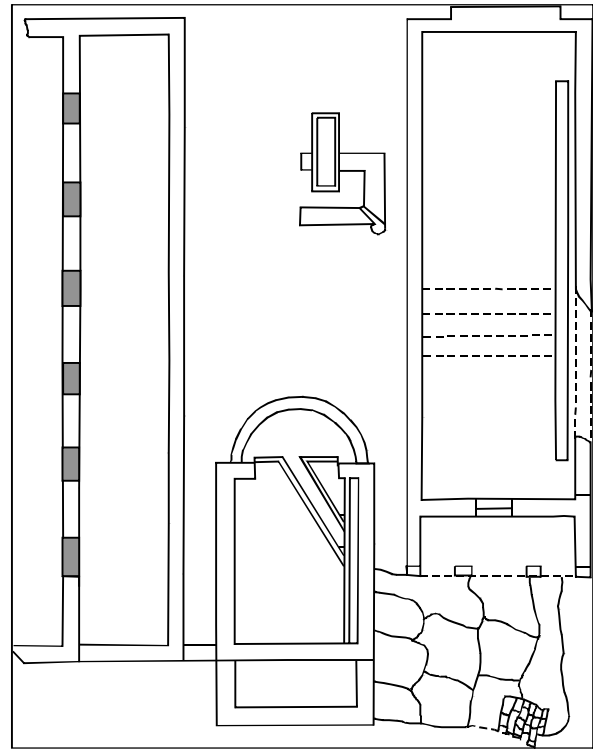


Fig. 35 b

The space between this road and the building is a 3.40×2.60 m intermediary space, paved almost entirely with large stone slabs. A foundation of limestone blocks sized 2.40×2.00 m was discovered at c. 6.40 m distance south the entrance into the portico, approximately on the building axis, yet slightly deviated eastwards.¹¹¹²

Its function is suggested by the inscription-bearing brick found in the portico and the discoveries inside.¹¹¹³ It was thus deemed *schola*, probably used by the *Palmyrenes* from Tibiscum.¹¹¹⁴ However, if we compare the building layout with other supposed *schola*, we would be tempted to believe that the structure in the close vicinity of *basilica* type building fulfilled this role. The existence of a heating system reinforces such conclusion, as a *schola* was theoretically designed for the meetings of a restricted number of individuals.¹¹¹⁵

¹¹¹⁰ In fact, two parallel walls, 1.00 m wide were discovered, placed at c. 1.20 m distance one from the other, Benea, Bona 1994, 50.

¹¹¹¹ Benea, Bona 1994, 50–1.

¹¹¹² The authors consider, rightfully, that it could represent a statue base, Benea, Bona 1994, 51.

¹¹¹³ The discovery of items inside this construction is confirmed by I. Piso, who had access to M. Moga's excavation journals. Beside votive plates and decorated marble panelling fragments, a jug with melted lead fragments inside was also discovered.

¹¹¹⁴ Piso, Benea 1999, *passim*.

¹¹¹⁵ See in detail Marcu 2007b.

I underline that some of the rampart buildings of several forts from Britannia were interpreted as belonging to irregular troops¹¹¹⁶. This could also be the case of the building from Tibiscum, although it evidently was not a barrack, like certain from Britannia.

The greater height of the building is proven by the partial thickening of the short northern side wall following high pressures of the roof carried only by the outer walls. Without a doubt, it would have been natural to reinforce the longitudinal walls, the stress in those areas being much higher. Probably the wall, parallel in plan to and at little distance from the eastern longitudinal wall of the building, was used to this end, although the fact it did not reach the short ends walls, prevents us to understand its real purpose. It could have supported benches, usual in *scholae*.

Another construction whose eastern wall doubled the enclosure wall was discovered still in the north-eastern corner of the fort.¹¹¹⁷ As the construction in the north-eastern corner described above is very long, I wonder where precisely this second building was positioned and consider it was one and the same structure.¹¹¹⁸

Schola 2 (?)

M. Moga unearthed another 18.40 × 10.70 (196.88 m²) structure in close vicinity to the *basilica* type building, at 2.00 m west.¹¹¹⁹ It was also provided with a small portico on the short side, sized 7.50 × 3.20 m and with posts probably placed on a *stylobat*.¹¹²⁰ A 2.60 m wide 'brick pavement' was identified in front of the portico.¹¹²¹ These bricks might have come from stairs on which the portico was reached. Beside this portico, the building was initially formed of only 10.90 × 7.50 m room.

The chronological relation between this structure and the one at east is rather obvious. Hence, at least at some point, the constructions must have been contemporary. Thus, the large stone slabs which paved the area in front of the *basilica* type building are adjoined to the eastern wall of the building with apse. Therefore, the *basilica* type structure together with the afferent paved space were erected subsequently, probably immediately after the erection of the

¹¹¹⁶ Holder 1982, 39. In P. A. Holder's book review, B. Dobson maintains, justly, that the assigned functions of the buildings in the enclosure area are not at all certain, while regarding the *nationes* troops accommodation, these buildings 'do not necessarily constitute a 'breakthrough' on this problem until their nature is known', Dobson 1983, 363.

¹¹¹⁷ Benea, Bona 1994, 39.

¹¹¹⁸ Because M. Moga researched this area, starting with the 80's the excavators were forced, for lack of coherent data in previous excavation diaries, to appeal to the restoration of older trenches routing. Hence, subsequent confusion is justified.

¹¹¹⁹ For other results of previous research see Moga 1965; Moga 1970 or Moga et alii 1979. Following latest research, based on the discovered material and the construction technique, the archaeologists date the building by the beginning of the 3rd century, Bona, Petrovszky, Petrovszky 1982, 319. Regarding sizes, it is odd that the authors plan (Benea, Bona 1994, Fig. 23) indicate same width for the *basilica* type building and the apsed building, although the first was 6.80 wide and the other almost 11 m.

¹¹²⁰ It is very curious that the excavators consider the 'attached' space to the building southern end as new compartmenting, although specify that the walls have smaller thickness (0.65), no foundation and only two stone rows preserved, Bona, Petrovszky, Petrovszky 1982, 318; Benea, Bona 1994, 52. The portico's alignment to the road exiting from the fort previous eastern gate is obvious, although I do not believe that this small compartment was added later, but was part of the initial construction scheme. Or, it is obvious that access must have been made by this part of the building, the long sides being almost completely blocked by the buildings in close vicinity, while the other short side was provided, at least at some point, with an apse.

¹¹²¹ The excavators believe a hallway could have existed here, Bona, Petrovszky, Petrovszky 1982, 319.

apsed building. If the constructions chronology would be the reverse, the slabs would have not been adjoined to the structure eastern wall.

The construction has an abutting apse on the north-eastern side.¹¹²² The apse seems to have been added at later date, since the extremities of its walls do not begin from either the building northern corners or the walls extremities cornering with the longitudinal sides of the same structure.¹¹²³ Yet, why was the northern wall not discontinued when the apse was attached? Probably, the heating system was provided at the same time and part of the wall is left in place in order to carry the floor, heightened in this area. Although the building is rather large and unpartitioned, the entire surface seems to have been heated by a heating system with canal.¹¹²⁴ It is odd that the canal does not cross the building longitudinally or transversally, being located only in its north-eastern corner. The narrow wall doubling the building eastern longitudinal wall is also interesting as it should have been related to the heating system, although the plan shows that it blocks the main heating canal at certain point. Inside the last mentioned canal, 70 arrowheads with three or four facets were discovered.

A 'short sword' with bone handle and a fragmentary bronze casing were also identified in this building area.¹¹²⁵

It was considered that this construction was designed to store arms,¹¹²⁶ a fact obviously impossible since it was equipped with heating system.¹¹²⁷ Its all constructional details prompt me, as mentioned above, to believe that the construction was a *schola*, undoubtedly related to the other *basilica* type buildings.

In M. Moga's excavations of the large fort *praetentura sinistra*, a building shaped and sized like a barrack was identified. No details regarding its interior are known.¹¹²⁸ It was set in close vicinity west of the apsed building, related to it by a small 1.10 m long wall. The structure's 0.80 m thick walls are made of cobbles bound with mortar, the edifice sizes being of 34 × 6.40 m.¹¹²⁹ The short walls of the building extend by 2.00 m outwards and one may suppose a verandah paved with bricks bound with mortar¹¹³⁰. Such a construction technique would have evidently led to the uncovering of posts bases, yet they were not identified, not even by the ends of the building short extremities¹¹³¹. Moreover, barracks erected entirely of stone

¹¹²² The apse is considered another room (Bona, Petrovsky, Petrovsky 1982, 318), although it is possible than no partitioning existed. Without such apse, the building is only 13.40 m long, see Benea, Bona 1994, 51–2.

¹¹²³ These two very short walls seem to form at some point a single wall as initial northern limit of the building.

¹¹²⁴ Fragments of *suspensura* bricks were discovered in the hypocaust canal and the apse area, Bona, Petrovsky, Petrovsky 1982, 318; Benea, Bona 1994, 51–2, n. 72.

¹¹²⁵ Bona, Petrovsky, Petrovsky 1982, 319; Bona, Petrovsky, Petrovsky 1983, 413, no. 21.

¹¹²⁶ Bona, Petrovsky, Petrovsky 1982, 319. Subsequently, by mistake, it was argued that the excavators considered this building as 'seat of the guard' (Benea, Bona 1994, 52), yet the authors referred to the building west of the apsed structure, see Bona, Petrovsky, Petrovsky 1982, 318–9.

¹¹²⁷ The excavators maintain, with no arguments, that the hypocaust system is at certain moment discontinued, Bona, Petrovsky, Petrovsky 1982, 319.

¹¹²⁸ Bona, Petrovsky, Petrovsky 1982, 319. Probably this is the building that D. Benea and P. Bona described as barracks. Accordingly, the structures would be at 9.50 m from building I, unearthed by M. Moga, Benea, Bona 1994, 52–3.

¹¹²⁹ I do not know if the building width comprises or not the portico, Benea, Bona 1994, 52.

¹¹³⁰ It is very curious that the authors do not mention such pavement inside the building as well, Benea, Bona 1994, 52. I mention that the barracks pavement was usually made of battered clay and in very few cases, of stone slabs. I know only the case of the fort at Chester, where the barracks were paved inside with bricks, Davison 1989, 228.

¹¹³¹ Stone columns were identified in the forts at Chesters and Housesteads, in the latter being incorporated in a late phase barracks, after Taylor 2000, 71.

are extremely rare and seem to be characteristic to the end of the 3rd and the beginning of the 4th centuries AD¹¹³².

Seven entrances seized between 0.80–1.00 m were noticed on the western longitudinal side. They were placed at equal intervals except for the first two (?), which were at 1.00 m distance one from the other.¹¹³³ Inside, no compartments were discovered, yet, they evidently corresponded to the mentioned entrances. Theoretically, we could suppose as many divisions as entrances. This partitioning is very curious, because if the structure would have been a barrack, then by one of its ends a larger space designed for the centurion or decurion would have been set. Everything depended on the entrances location.¹¹³⁴ Based on their numbers, the spaces created were oblong and very narrow if we longitudinally divide the building in two, resulting a 1 : 2 length/width ratio. Or, the barracks *arma* or *papiliones* are approximately square. In fact, the number of these so-called *contubernia* is not specific to classical barracks.¹¹³⁵

We are informed that the single discovery coming from this building is a bas-relief representing the Danubian Knight.¹¹³⁶

For all above reasons, I do not believe that the structure may be deemed barrack. In addition, considering the brick pavement in the so-called verandah and the lack of column bases or pillars I assume that the building western limit was in fact not identified.

Between the three buildings in the fort north-eastern corner, placed one close to the other, behind the apsed building, a rather large open space resulted, however, I am not sure what the discoveries coming from this area and rendered in plan, represented. Due to this space, the connection wall between the apsed building and the one west of it and the slab-paved portion in front of the *basilica* type building, we may presume that the three buildings were somewhat related, although I am not certain on the nature of this relation¹¹³⁷.

The fort baths were partially discovered in *praetentura dextra*, south of *via praetoria*.¹¹³⁸

Following the 1976, 1977 and 1979 campaigns, the archaeological materials discovered in several fort parts and especially in the apsed building area were published in detail¹¹³⁹.

Another building, placed over fort II *via sagularis*, very close to the c. 4.50–4.60 m wide enclosure doubling wall and a portico with columns on limestone bases located on the short side, with also a 2.57 m entrance and heating system were identified in *praetentura sinistra*.¹¹⁴⁰

¹¹³² See Taylor 2000, 70–1.

¹¹³³ Unfortunately, the plan provided by the authors renders only six entrance spaces, the interval between them being approximately equal, Benea, Bona 1994, 52.

¹¹³⁴ Theoretically, the *arma* entrance was located close to a partition wall and not by mid room, as it was intended to design as much useable space as possible.

¹¹³⁵ Only starting with the 3rd century AD, probably from its mid, *contubernia* become much more spacious, yet the length/width ratio between *arma* and *papilio* continues to be c. 1 : 1, see Davison 1989, 94 sqq.

¹¹³⁶ Upon representation, the piece is dated in the 2nd century AD, Benea, Bona 1994, 52.

¹¹³⁷ The fact that the buildings opened towards the exterior, instead of the courtyard is hindering.

¹¹³⁸ Benea, Bona 1994, 53.

¹¹³⁹ See Bona, Petovszky, Petovszky 1983, 405–32.

¹¹⁴⁰ Since only the building extremities were researched, it is difficult to recognize its function, CCA 2003 (2004), no. 95. It is interesting that the author notices the location of the building over fort II *via sagularis*, yet, previously mentioned the existence under this construction of another, also of unknown function. Additionally, the *hypocaust* system inside the building is also interesting, the floor being carried by common brick *pilae*, but also by ‘small cobble walls bound with mortar, no wider than 0.20–0.25 m’, after CCA 2003 (2004), no. 95.

Troops

The military units which occupied the two contemporary forts dated in the first half of the 2nd century AD are supposed to be *coh. I sagittariorum*, attested by tile stamps,¹¹⁴¹ detachments of *legio III Flavia Felix* and *XIII Gemina* and the *Palmyrenii sagittarii*, starting with Hadrian's reign.¹¹⁴² The fort stone was assigned to cohort *I sagittariorum*, while the recently discovered fort (fort III) to the *Palmyrenii sagittarii*.¹¹⁴³ The single datable record of *coh. I sagittariorum* available comes from AD 165.¹¹⁴⁴ It is not certain that the troop occupied fort I or II as the forts chronology is also imprecise. The unit is present with certainty at Drobeta during the 3rd century AD. Or, considering the fort 1.1 ha sizes, I believe that a troop which, at least by mid 2nd century AD, was *milliaria* would have been very difficult to accommodate here. Besides, even if the unit were *quingenaria* the fort would still be too small. Hence, I believe this fortification was occupied by the Palmyrenes, while the one south, by *coh. I sagittariorum*. The headquarters building during its first phases belonged probably still to this fort. These two forts were replaced by an enlarged fortification, erected after mid 2nd century AD.

Coh. I Vindelicorum. The troop would be probably transferred at Tibiscum in the second half of the 2nd century AD, replacing *coh. I sagittariorum*, transferred at Drobeta. At Tibiscum the troop is attested by several tile stamps and a series of epigraphical monuments discovered in the large fort and the neighbouring temple of Apollo.¹¹⁴⁵ The presence of the troop in the 3rd century AD at Tibiscum is certain, being recorded by an inscription where the imperial epithet, *Severiana, Alexandriana, Phillipiana*, etc., of one emperor from the 3rd century AD was erased from the troop name.¹¹⁴⁶ That is precisely why the quoted author believes that *coh. I Vindelicorum Cumidavensium Alexandriana* could not be identified with the troop at Tibiscum.¹¹⁴⁷ The unit is also recorded by a joint dedication to Septimius Severus known in the fort at Micia (IDR III/3, 77). C. C. Petolescu, agreeing with C. Cichorius and W. Wagner, considers that the troop participated between AD 132–135 in the Judaeen war, on the occasion of which Easterners were recruited, one of them being a Caesarea native, holder of the diploma from AD 157 (CIL XVI 107 = IDR I 15) discovered at Tibiscum.¹¹⁴⁸ This possibility may not be entirely excluded as the diploma holder was from Caesarea, however, since the troop was active in Tibiscum area, where numerous Easterners were found, one

¹¹⁴¹ IDR III/1, 251, 252.

¹¹⁴² For troops see also Moga 1970a or Moga 1974.

¹¹⁴³ See Benea 1980; Benea 1982; Benea, Bona 1994, 37.

¹¹⁴⁴ The troop dedicated the inscription to Marcus Aurelius and was subsequently reused in the headquarters building revetment or repair, IDR III/1, 130. It would be very interesting to find its accurate location, the excavators believing it was 'fixed' in the basilica western wall, between rooms E and F (Benea, Bona 1994, 47, 49). It is an essential element for dating the building constructional phases.

¹¹⁴⁵ IDR III/1, 137, 138, 253–255; Benea 1985; Piso, Rogozea 1985, 211–218; Petrescu, Rogozea 1990, 122, no. 4; Benea, Bona 1994, 57; Piso, Benea 1999, 97 sq.; Benea 1997, 109 sq.

¹¹⁴⁶ Piso 1983, 111. For other comments and the missing epithet completed as *Philippiana*, see Petolescu 2002, 126–7, n. 13, 14.

¹¹⁴⁷ As stated by I. I. Russu in Russu 1974, 46–8.

¹¹⁴⁸ Petolescu 2002, 125–6. The author maintains that K. Kraft also confirmed C. Cichorius and W. Wagner's views (see Petolescu 2002, n. 16), however, he conversely showed that other Easterners were also enrolled in troops from Dacia, without being sure on the troop's presence in Judaea, Kraft 1951, 191–2, no. 1930. In fact, even C. C. Petolescu reminds that a Moor, *Aurelius Maurus* (CIL III 6267 = IDR III/3, 166) joined *coh. II Flavia Commagenorum* from Micia, thus recording numerous Moors who had come once with the troop or were heirs of the Moors *numerus* stationed there, see Petolescu 2002, 146.

should wonder whether he did not come in fact, from somewhere in the Tibiscum area. P. Aelius Theimes, former centurion and duumvir at Sarmizegetusa is also recorded in the same troop¹¹⁴⁹. Nevertheless, if the diploma holder of AD 157 would have been recruited from Tibiscum area, this would have happened around AD 135, thus indicating that the troop was already in Tibiscum area, which is however hard to believe since from AD 165 *coh. I sagittariorum*, beside the Palmyrenes, were garrisoned at Tibiscum. In fact, this entire scenario is futile should we accept that the Moors recorded by the AD 157 diploma were not recorded among the troops whose soldiers received citizenship, as P. Southern assumed¹¹⁵⁰.

The inscription fragment discovered in one of the headquarters building back rooms, which lists a few decurions and one centurion, may belong to any of the troops from Tibiscum, all being seemingly, *equitatae*.

In my view, the recently discovered c. 0.63 ha fort, on the other bank of river Timiș, could have been occupied by the Moors brought at Tibiscum under Antoninus Pius¹¹⁵¹. Subsequently, when the large earthen fort was constructed at 600 m west, *Mauri equites* could have constituted, together with *coh. I Vindelicorum* and the Palmyran archers, the fort garrison.

35. VĂRĂDIA

The locality was associated to ancient *Arcidava*. *Tabula Peutingeriana* does not seem to identify Vărădia with ancient Arcidava, the distance on the ancient map being of 18 km, whilst it is c. 35 km air line¹¹⁵². I shall discuss here only the the fort at Vărădia-‘Pustă’, as the second fortification, close to same locality and located on hilltop ‘Chilii’ was dated during the two Dacian wars, prior the existence of the proper province.

The fortification is sized 170.00 × 154.00 m (pl. 17), *porta praetoria* is oriented northwards, being the only one which was double. All gate towers are curious due to their great extension and 4.65 m (*porta praetoria*), 3.15 m (*portae principales*), respectively 2.80 m (*porta decumana*) widths and a similar impressive length of c. 8.50 m¹¹⁵³. It is strange that they are paralleled in Dacia only by the gate towers of the fort at Bumbești, definitely constructed by the beginning of the 3rd century compared to this fort which, according to the excavators, dates only in the first half of the 2nd century AD¹¹⁵⁴.

The roads width is also very interesting, *via principalis* being only 3.45 m and *via praetoria* c. 9.00 m¹¹⁵⁵. Generally, we would expect the reverse, however among gates, only *porta praetoria* is double.

¹¹⁴⁹ CIL III 12587 with correction and comments in Piso 1979, 139–41, Abb. 2.

¹¹⁵⁰ *Vexillarii* were probably recruited from troops stationed in northern Africa and Mauretania Caesariensis to ensure the Moors command, Southern 1989, 93. This is hard to prove, yet the formula ‘*qui sunt cum Mauris gentilibus in Dacia Superior*’ entitles us to notice the Moors presence in respective province only, without necessarily involving a discharge in their case. *Mauri equites* are mentioned among the Empire’s regular troops and not among *nationes*, Hyginus 30.

¹¹⁵¹ For the troop of Moors, see Benea 1985a.

¹¹⁵² After Nemeth 2002, 115.

¹¹⁵³ Latest research shows that the two narrow towers are, in fact, walls, therefore there must have existed a single tower for access, similar to several timber gates. Stone gates of this type were identified in some of the forts from Dacia, like those from Bivolari (*Arutela*), Sărățeni and Titești, or like the case of one of the gates from Wallsend (after Hodgson 2003, 154).

¹¹⁵⁴ Fortifications on the road Lederata-Tibiscum seem to have been deserted by the beginning of Hadrian’s reign, after Protase 1967, 67; Protase 1975, 348 and, with additional arguments, Nemeth 2005, 88.

¹¹⁵⁵ Gudea 1997d, 26.

Principia

The single building known from the fort interior is the headquarters building. Excavations after 2000 complete information already available subsequent archaeological digs from 1932¹¹⁵⁶. Confirming Gr. Florescu's plan, the two trenches dug in the headquarters building did not identify rooms on the courtyard western side. Instead, two construction phases of the headquarters building were identified, an initial timber and a second stone phase¹¹⁵⁷. The second trench excavated along the back rooms did not identify the initial timber phase of the headquarters building. *Principia*, measuring 37.50 × 32.50 m (558 m²) in its stone phase, represents 4.6% of the fort total surface, thus framing general known standards. Recent excavations confirmed that no rooms existed on any of the courtyard sides, hence its proportion from the building total surface is unusually large, c. 45%. Usually, this structure occupies c. 25% of the total surface, even where there are no rooms bordering the courtyard, like the case of the majority of forts from Britannia¹¹⁵⁸. Nevertheless, the latter had at least a c. 4.00–5.00 m wide portico surrounding the courtyard¹¹⁵⁹, as it may be supposed at Vărădia as well.

Regarding the *basilica* and the five rooms on the southern side, nothing unusual was recorded. *Basilica*, sized 9.50 × 30 m, occupies 23% of the building surface. Information given by Gr. Florescu, i.e. the existence of two rooms flanking the building identified as *aedes principiorum*¹¹⁶⁰ remain single noticeable details from this area. The occupation level from the *principia*, corresponding to the Roman period, is rather superficial¹¹⁶¹ nonetheless, considering its function, it is not at all unusual. In addition, the fort seems to endure only under Trajan.

Troop

Single evidence, unfortunately uncertain, on *coh. I Vindelicorum* ∞ stationing is Gr. Florescu's discovery in 1932, under not specified stratigraphical conditions, of a *phalera* mentioning Iulius Martialis from *c(enturia) Clementis* (IDR III/1, 110). The presence of the cohort in the fort at 'Pustă' is supposed by the end of Trajan's reign¹¹⁶². Starting with the second half of the 2nd century AD, the troop is garrisoned, together with other military units, at Tibiscum¹¹⁶³. Beside the military insignia certifying at least one troop soldier in the fort at Vărădia, another argument for its presence here is procured by fort sizes, adequate to a *milliaria* and *equitata* troop, like *coh. I Vindelicorum*.

The troop firstly stations in Germania Inferior, being recorded by the AD 98 (RMD 216) diploma from Elst¹¹⁶⁴, wherefrom moves to Pannonia¹¹⁶⁵ and then to Moesia where it is

¹¹⁵⁶ Florescu 1934, 60–72.

¹¹⁵⁷ Nemeth 2002, *passim*

¹¹⁵⁸ Taylor 2000, *passim*.

¹¹⁵⁹ Taylor 2000, 27.

¹¹⁶⁰ Florescu 1934, 61 sqq.

¹¹⁶¹ Nemeth 2002, 118–9.

¹¹⁶² Excavations unearthed a few coins and brooches, Nemeth 2002, 119–20.

¹¹⁶³ Benea, Bona 1994, 54, 57; Piso, Rogozea 1985, 211 sqq.

¹¹⁶⁴ Haalebos 2000, 47–8. For the troop and its records from Germania see Alföldy 1968, 75 with bibliography. A funerary inscription from Cologne attests the troop in Germania Inferior as well, CIL XIII 8320 = ILS 9162 = Alföldy 1968, 216, no. 164; Kraft 1951, 192, no. 1931.

¹¹⁶⁵ Alföldy 1968, 75. Recently B. Lőrincz decided that soldiers mentioned by the inscriptions from Pannonia at Aquincum (CIL III 3562) and Alisca (AE 1935, 103 = RIU 1029) were lost while the troop moved to Moesia in AD 98–99, as the troop never stationed in the province, Lőrincz 2001, 48.

evidenced by May the 8th, 100 (CIL XVI 46) diploma. In Dacia it is attested for the first time by the diplomas from AD 109 (AE 1990, 860 = RMD 148) and 110 (CIL XVI, 163 = IDR I, 3). In Dacia Superior the cohort is mentioned by the diplomas from AD 144 (CIL XVI 90 = IDR I 14), 157 (CIL XVI 107 = IDR I 15) and 179 (Piso, Benea 1984). By mid 2nd century AD, the unit is transferred in the fort at Tibiscum, where it is recorded by several tile stamps and a series of epigraphic monuments discovered in the large fort and the neighbouring temple of Apollo¹¹⁶⁶. The unit is also mentioned in a joint dedication to Septimius Severus from the fort at Micia, where it participates in the revetment or erection of a temple together with other troops (IDR III/3, 77)¹¹⁶⁷.

At **Orșova**, although the strategic position necessitated a fort, its location is not at all certain¹¹⁶⁸. The site's military character is proven additionally by the discovery of military stamps recording *coh. I Brittonum* and detachments of *legio V Macedonica*¹¹⁶⁹.

36. The second fort in the Bumbești-Jiu fortification area is the one at **VÂRTOP**, also flood-damaged. A few coins discovered inside the fort and dated from Trajan to Commodus suggest the fort dating during the 2nd century AD¹¹⁷⁰. Such dating corresponds to the finding of the single tile stamp bearing legion's *IIII Flavia Felix* symbol¹¹⁷¹. Inside the fort, the single stone building partially researched is close to the western enclosure, near *via sagularis*, the walls foundations being made of cobbles bound in the lower part with clay, while the proper elevation consists of cobbles bound with mortar¹¹⁷². The excavators deemed it *horreum*, yet a *hypocaust pila* contradicts such interpretation¹¹⁷³. It is obvious that this *pila* could not have come from a hypocaust system, although it was evidently designed to carry a floor in order to vent and not heat it.

¹¹⁶⁶ IDR III/1, 137, 138, 253–255; Piso, Rogozea 1985, 211–218; Petrescu, Rogozea 1990, 122, no. 4; Benea, Bona 1994, 57; Piso, Benea 1999, 97 sq.; Benea 1997, 109 sq.

¹¹⁶⁷ For interpretation of troops' presence here see also Marcu 2004, 584.

¹¹⁶⁸ Nemeth 2002, 31.

¹¹⁶⁹ IDR III/1, 73 sqq.

¹¹⁷⁰ See Marinoiu 1992, 28; Marinoiu, Bratu 2000, 26–7; Marinoiu, Hortopan 2003, 36–40.

¹¹⁷¹ Marinoiu, Hortopan 2003, 40.

¹¹⁷² Ionescu, Marinoiu 1994, 54–6. It is hard to locate this building, especially since no plan of the fort at Bumbești is available.

¹¹⁷³ Ionescu, Marinoiu 1994, 55.

IV. DACIA INFERIOR

The creation and territory limits of Dacia Inferior determined numerous scientific debates. It was established that Dacia, initially an individual province under Trajan, was divided under Hadrian in two distinct parts: Dacia Superior (today's Banat and Transylvania) and Dacia Inferior (Oltenia)¹¹⁷⁴. Dacia Superior would be subdivided by the end of the AD 150's thus creating Dacia Porolissensis¹¹⁷⁵. The discovery of AD 123 (IDR I 7 = RMD 21) and 133 (IDR I 11 = RMD 35) military diplomas at Gherla¹¹⁷⁶ confirms the formation of Dacia Porolissensis once or little after the creation of Dacia Superior and Inferior¹¹⁷⁷. The AD 119 diploma published by W. Eck, D. MacDonald and A. Pangerl¹¹⁷⁸ clearly proves, thus confirming I. Piso's theory, that Dacia Porolissensis did not exist at that point yet, being formed subsequently, up to AD 123.

The issue of Dacia Superior and Dacia Inferior borders is still unclarified. Based on Dacia Inferior troops movements¹¹⁷⁹, E. Ritterling argues that south-east Transylvania belonged to Dacia Inferior¹¹⁸⁰, a theory accepted and further proved by C. Daicoviciu¹¹⁸¹ yet disputed by D. Tudor¹¹⁸², however lately confirmed by the finding of AD 140 (IDR I 13) military diploma from Palamarca¹¹⁸³. To conclude, east Oltenia, southern Moldova, south-eastern Transylvania and Muntenia pertained, under Trajan, to Moesia Inferior¹¹⁸⁴.

¹¹⁷⁴ Among most important works on this issue I mention Daicoviciu 1945; Macrea 1960, 352–6; Macrea 1966, 121–50; Petolescu 1985, 45–55; Petolescu 1986, 131–8; Bogdan-Cătănciu 1977; Bogdan-Cătănciu 1997, 55–60; Ardevan 1998, 32.

¹¹⁷⁵ Premerstein 1909, 259 sqq.; Stein 1944, 32–5.

¹¹⁷⁶ Initially, the authors who published the diploma maintained the creation of Dacia Porolissensis in AD 124, Daicoviciu, Protase 1964. After the discovery of the diploma from AD 123, I. I. Russu states it was established between AD 120–123, IDR I p. 20.

¹¹⁷⁷ C. C. Petolescu supports the simultaneous creation of the three provinces, Petolescu 1979, 267–70; Petolescu 1979a, 105–9; Petolescu 1985, 53–5; see also Piso 1985, 471–81. The creation of Dacia Porolissensis is considered to have taken place little after the establishment of the two provinces, as suggested by their names Superior and Inferior, Piso 1993, 34.

¹¹⁷⁸ Eck, MacDonald, Pangerl 2004, nr. 7.

¹¹⁷⁹ Diplomas of Dacia Inferior are from AD 122 (Pferdehirt no. 20); 129 (CIL XVI 75 = IDR I 10), 129/130 (Weiß 1997); 140 (IDR I 13 = RMD 39) and 146 (RMD 269)

¹¹⁸⁰ Ritterling 1924, col. 1719. *Contra*, Fabricius 1926 and Patsch 1937, 169.

¹¹⁸¹ Daicoviciu 1935, 250, n. 1, 253, 255; Daicoviciu 1940, 315.

¹¹⁸² Tudor 1944a, 157–65.

¹¹⁸³ Gerov 1959.

¹¹⁸⁴ See also IDR III/4, p. 7 sqq.

I. Bogdan-Cătănciu attempting to explain the reason for the initial inclusion of south-east Transylvania into Moesia Inferior, subsequently to Dacia Inferior, decided this area was attached after AD 102¹¹⁸⁵.

Subsequently, it would be argued that south-east Transylvania would become the possession of Dacia Superior, as a legionary vexillation is mentioned as participating in the construction of the fort at Hoghiz, and of Dacia Inferior only by the end of Hadrian's or the beginning of Antoninus Pius reign¹¹⁸⁶.

Issues related to Dacia Inferior's territory limits are hindered by the lack of datable archaeological materials. Single chronologically framable items are as follows: a stamp which mentions *numerus Illyricorum* (IDR III/4, 243)¹¹⁸⁷; an altar dedicated by *coh. III Gallorum* to emperors Marcus Aurelius and Commodus (IDR III/4, 231); a stamp of *coh. I Flavia Numidarum Antoniniana* (IDR III/4, 177), therefore datable by the beginning of the 3rd century AD and finally a few coin hoards especially relevant for the ending period of the Roman rule in the area¹¹⁸⁸.

Gr. G. Tocilescu is the first who proposed that *limes Transalutanus*, located at 10–50 km from Olt River was established by the end of the 2nd and/or beginning of the 3rd centuries AD¹¹⁸⁹. V. Christescu, following the analysis of the coin hoard from Săpata de Jos, dated the moment of this *limes* accomplishment by the beginning of the 3rd century AD¹¹⁹⁰. In addition, D. Tudor maintained this *limes* was created under Septimius Severus, being abandoned under Philips Arabs¹¹⁹¹. Further on, C. C. Petolescu related the creation of the *limes* with emperor Caracalla's visit by the beginning of the 3rd century AD¹¹⁹².

Conversely, I. Bogdan-Cătănciu attempts to prove that in fact, the *limes* was organized under Hadrian and that it had several use phases¹¹⁹³. Confirmation would consist of the fact that recently, several researchers argue that several occupation phases were identified at Câmpulung-Jidova, therefore the fort beginnings could be placed under Antoninus Pius¹¹⁹⁴.

More suggestive were the views of foreign scholars by the end of the 19th and beginning of the 20th centuries, like K. Zangemeister and E. Kornemann who considered it a *limes* doubling Olt river dated under Hadrian or Antoninus Pius¹¹⁹⁵. E. Fabricius argues that the new *limes* represents in fact an enlargement of the defence area of settlements which had developed along Olt, without being a proper double *limes*¹¹⁹⁶. I consider such view significant as archaeological digs, little indeed, did not identify civil settlements near the forts on *limes Transalutanus*, this system being similar to that established by 'Stanegate frontier' and

¹¹⁸⁵ Bogdan-Cătănciu 1969, 478.

¹¹⁸⁶ IDR I, p. 20.

¹¹⁸⁷ The stamp dates after AD 130, as the irregular troop is mentioned as vexillation in AD 129 (CIL XVI 75 = IDR I 10) and 129/130 (Weiß 1997) diplomas.

¹¹⁸⁸ See Petolescu 1981 with bibliography.

¹¹⁸⁹ Tocilescu 1900, 123–4.

¹¹⁹⁰ Christescu 1934, 73.

¹¹⁹¹ Tudor 1955, 90.

¹¹⁹² Petolescu 2002, 60. C. C. Petolescu initially agreed with the theory according to which *limes transalutanus* would be created under Antoninus Pius, Petolescu 1982, 75–6.

¹¹⁹³ Bogdan-Cătănciu 1997, 60.

¹¹⁹⁴ See comment and bibliographical notes in Petolescu 2002, 58, n. 5.

¹¹⁹⁵ Zangemeister 1895, 81 sqq.; Kornemann, 1907, 105.

¹¹⁹⁶ Fabricius 1927, 645.

Hadrian's Wall. In Germania also, the palisade and earthen rampart border would shape by mid 2nd century AD.

Therefore, the initial dating under Hadrian or Antoninus Pius may not be excluded¹¹⁹⁷. It is additionally reinforced by the fact that double forts, specific to Hadrian-Antoninus Pius period in Germania, begin to be constructed. Nevertheless certain forts, like that at Cumidava functioned also under Trajan, as proven by numerous coins including from the 1st century AD, the archaeological material being very similar to that identified in the forts at Drajna de Sus, Mălăiești or Târgșoru Vechi¹¹⁹⁸. Except it belonged, during this period, to another province.

Similarly to other Dacian provinces, Dacia Inferior has a marked military character. Fortifications had been established along main communication roads, first of all along Olt valley, including its Transylvanian side located on its right bank, starting with the fort at Olteni and continuing with those at Hoghiz, Feldioara, Cincșor, Boița (*Caput Stenarum*). Eastwards, the Oituz pass was controlled by the fort at Brețcu. The fortifications at Căineni (*Pons Vetus*), Racovița, Copăceni, Călimănești-Bivolari (*Arutela*) and Jiblea were located in the Carpathian sector of Olt River, this time on its left bank. Aligned to the latter fortifications, east of the Cozia massif, are positioned the forts at Titești, Rădăcinești and Sâmbotin (*Castra Traiana*). It remains to be established if the construction date of these fortifications was the same or not. The forts at Stolniceni (*Buridava*), Ioneștii Govorii (*Pons Aluti*), Momotești (*Rusidava*), Enoșești (*Acidava*), Reșca (*Romula*), Slăveni, Tia Mare and Islaz were identified in the region from Olt River's exit from the mountains to the Danube.

West of Olt River line, other roads crossing Dacia Inferior passed by Răcari fort area, from Drobeta to Romula or from the Danube on Jiu valley to Bumbști and farther.

East the Olt's fortification system, a second defence line, the so-called *transalutan*, was established at about 10–50 kilometres from Olt. It unfolds like an actual *limes* with earthen rampart and no defence ditch, in its immediate vicinity being placed fortifications running 250 kilometres from the front of Bran pass to the Danube. Thus, the forts at Câmpulung-Jidova, Purcăreni, Albota, Săpata de Jos, Fâlfani (Izbășești), Urluieni, Ghioaca (Crâmpoia), Gresia, Roșiori de Vede (Troianul), Băneasa, Putinei and Flămânda are located from north to south. Unfortunately, archaeological excavations in the area are incomplete.

37. ALBOTA

Albota fortification on *limes Transalutanus* is described as suitable to a *numerus*, being known the fort dimensions of c. 56–00 × 81.00 m¹¹⁹⁹. Archaeological excavations were not carried out, however the rampart is said to be 20.00 m wide and 0.50 m high. Alike with other forts in this frontier sector, the single defence ditch of the fort is very wide, being 20.00 m wide and 1.50 m deep¹²⁰⁰.

¹¹⁹⁷ Until Antoninus Pius reign, Aelius Aristides was right, telling the emperor in AD 147 that 'emperors did not neglect erecting walls (for Rome), yet placed them all around the Empire, instead of the city', *Roman Oration* 80; after Appian *Preface* 7. For the scientific controversy caused by the issue of this *limes Transalutanus* establishment, see for latest contributions also the bibliography in Bogdan-Cătănciu 1997, 59 sqq. or Petolescu 2002, 28–9, 55–60.

¹¹⁹⁸ The fort at Cumidava is located however, by the northern extremity of *limes Transalutanus*, north of Bran pass, therefore, it could have stood individually, initially outside the newly created system.

¹¹⁹⁹ Gudea 1997d, 78. Gr.G. Tocilescu, quoted also by D. Tudor or C. M. Vlădescu as well, maintains it measured 108 × 95 steps (about 35 × 30 meters) Tocilescu 1900, 128, Fig. 71; Tudor 1978, 258; Vlădescu 1986, 89.

¹²⁰⁰ Tudor 1978, 258, Fig. 76/3.

38. BĂNEASA

At Băneasa, at 50 m behind *limes Transalutanus*, another two neighbouring forts were identified. Their position is strategic, surveilling Călmățui valley, therefore the access road to Oltenia. The digs from the 19th century consisted of some small trenches¹²⁰¹. The construction date of the fort sized 126.00 × 130.00 m is considered based on numismatic finds, to have taken place by mid 2nd century AD (pl.40.1). The fort is among the few on *limes Transalutanus* that could accommodate a full strength auxiliary troop, i.e. a *cohors quingenaria peditata*. Interestingly, at some point the big fort was divided by an earthen rampart in two almost equal parts. Another fortification sized 45.00 × 63.00 meters is placed at 150 m north/east from it, but we have no indication on it.

39. BIVOLARI (*Arutela*)

Almost half of Arutela forts was destroyed by Olt River, the excavations of 1967–1978, performed by D. Tudor, C. M. Vlădescu and Gh. Poenaru-Bordea, indentifying partially or entirely only five constructions from the fort interior¹²⁰². Its defensive system in the preserved area was revealed almost completely by the end of the 19th century by Gr. G. Tocilescu, with the participation of P. Polonic¹²⁰³. The single part entirely preserved is the north-east one, being 60.80 m. *Porta praetoria* is placed by its mid.

It seems that the construction of the fort ended by AD 138 (pl. 34), when their authors, *Suri sagittari*, dedicated an inscription upon the order of Dacia Inferior governor, Titus Flavius Constans (CIL III 12601, 13793, 13794)¹²⁰⁴.

The 1.60 m wide enclosure wall is built of two paraments made of quarry stone blocks with a cobble filling in-between, etc. Alike with other forts from the Cozia massif area, buttresses were placed against the enclosure wall inside.

Porta praetoria has a 2.80 m span, rectangular towers, sized c. 1.80 × 1.50, projecting inwards and 0.70 m entrances. *Porta principalis dextra* has a 2.85 m span and *sinistra* of 3.85 m, without towers, however buttresses flanking the exit are longer. Inside and partially the outside of *portae principales*, a pavement made of big limestone blocks bound with mortar was discovered¹²⁰⁵. It is obvious that these gates represent entrance by a single gateway, while the side pillars supported an arch, or, at any rate, the gate space was covered¹²⁰⁶. An identical gate, with 3.00 m span was identified in the fort at Wallsend deemed *porta quintana dextra*¹²⁰⁷. Alike Wallsend, *portae principales* from Arutela might have been provided with arches outside and inside the gates, especially since both inner and outer ends of the walls are thickened, being provided with some short walls. The latter were required to carry arches¹²⁰⁸.

The interior living space is quite reduced, as the case with other forts in the area. That is why C. M. Vlădescu claims that the space created between the buttresses placed on the inside of the enclosure wall could have been used as storage or stable, as proven by the discovery of

¹²⁰¹ Cantacuzino 1944.

¹²⁰² Poenaru-Bordea, Vlădescu 1979. For a complete bibliography of the site reports see Vlădescu 1986, 46.

¹²⁰³ After Vlădescu 1986, n. 194.

¹²⁰⁴ The inscription comes from the gate area, therefore the assumption that the troop which built the fort is made of Syrians might be correct.

¹²⁰⁵ Vlădescu 1986, 50.

¹²⁰⁶ The gates at Vărădia, Sărățeni or Titești are probably similar.

¹²⁰⁷ Hodgson 2003, 154.

¹²⁰⁸ The excavators argue that these protusions form inside a second gate, suggesting there were two successive entrances, Tudor, Poenaru-Bordea, Vlădescu 1969, 16.

horseshoes therein¹²⁰⁹. However, the buttresses are sized 1.50 × 1.00 m and placed at 2–3.60 m intervals, the spaces thus created being about 4.50 square meters. It is hard to believe that horses could have been accommodated there, the space being insufficient even for animals of burden, instead could have functioned as storage or for industrial activities beneath the patrol road.

Via principalis and *via praetoria* are c. 3.00 m wide and are made of cobbles. It is interesting that a free interval existed between the fort main roads and the three gates. Here it is supposed that the connection between the pavement identified in gates area and the roads was made by a beam system¹²¹⁰. *Via sagularis* surrounds the fort at 3.00 m distance from the enclosure wall, being 1.50 m wide¹²¹¹.

At *via praetoria* and *via principalis* junction, partially over the first, a stone platform placed directly on the ground, of apparently no role, was identified. It is neither in front gate *praetoria* or the entrance into *principia*, located midway between *portae principales*. The base is located in front the entrance into the headquarters building, at 6.00 m from its front wall, on the northern edge of *via praetoria*, slightly displaced from the fort axis, towards *praetentura sinistra*. It is square with 2.00 m long sides, being made of stone and crushed brick and having on edges rectangular stone plates bound with mortar preserved up to a height of 0.20 m¹²¹². Certainly, the location of this platform is absolutely unusual and its rather large dimensions make the establishment of functionality more difficult. Evidently, it was a monument base, but what could that be!? I am not familiar with any examples of statues located in this position, their place being inside the headquarters building. In my view, the only monument that could have been placed there would be dedicated to the *groma*. The monument must have been undoubtedly smaller, probably similar to the one identified in Sarmizegetusa, of c. 0.70 m¹²¹³.

The set point wherefrom a fort was designed was at *via principalis* and *via praetoria* junction, where ancient authors speak about a *locus gromae*. Hyginus himself references a central point where *agrimensores* established their *groma* (Hyginus 12). As such, *groma* marks the entrance into the headquarters building, having both a specific function of measurement starting point, plotting the two main roads¹²¹⁴ and a religious one¹²¹⁵. *Groma* must be fixed ‘in the centre of the centuriation stone’¹²¹⁶. Such bases existed theoretically in every intersection. *Groma* is not required to be set right by the intersection of two roads, however in such fashion that lines and right angles could be made. At Pompeii, for instance, *groma* is slightly displaced from the intersection centre¹²¹⁷. At Arutela as well, from the base central point, a straight line

¹²⁰⁹ Vlădescu 1986, 51.

¹²¹⁰ Tudor, Poenaru-Bordea, Vlădescu 1969, 17.

¹²¹¹ Tudor, Poenaru-Bordea, Vlădescu 1969, 18.

¹²¹² Tudor, Poenaru-Bordea, Vlădescu 1969, 20.

¹²¹³ See detailed in Marcu 2007c. Here the whole problematic is shortly reviewed.

¹²¹⁴ Hyginus 12: *in introitu praetorii partis mediae ad viam principalem gromae locus appellatur quod <quat>tuor viae ibi congruant sive in dictatione metationis posito in eodem loco ferramento groma superponatur, ut portae castrorum in conspectu rigoris stellam efficiant*. Printre subofițeri sunt amintiți la Vegetius 2,7: *mensores qui in castris ad podisimum dementiuntur loca, in quibus tentoria milites figant vel hospitia in civitatibus praestant*. *Locus gromae* is also known from papyri, including guards being placed there, see Fink 1971, number. 15, column. 2, 9 and number 19, line 6 (dated in AD 242–256). See also RE VII, 2, 1912, 1881; Dilke 1971, 66, 88, 89 or Dilke 1974, 571.

¹²¹⁵ *Posita auspicaliter groma*, Hyginus, of *limitibus* (Blume, Lachmann, Rudorff 1848, 170).

¹²¹⁶ Dilke 1974, 571.

¹²¹⁷ See Dilke 1971, 66, 70.

along the northern edge of *via praetoria*, from *praetentura sinistra* could be traced. The area of *via praetoria* meant for traffic would become of c. 1.60 m, rather narrow, but as elsewhere, *via principalis* was probably the main access route. Perhaps that is why the monument central point was not located by the right angle of the two main roads, by their midst, so to avoid hindering passage over *via principalis* also, of 2.80 m wide. The base sides are oriented precisely according to the cardinal points¹²¹⁸.

Epigraphically, *groma* is attested to Lambaesis by an inscription over the entrance into the *tetrapylon* marking *via principales* and *praetoria* junction and the entrance into *pricipia*¹²¹⁹. Since *groma* appears in Accusative, it was assumed it relates to a construction itself and not the actual topographic instrument¹²²⁰. Such construction is therefore the *tetrapylon*, built upon the model of a Roman triumphal, which marks the intersection of *via principalis* with *via praetoria* from Lambaesis or Dura-Europos, Lauriacum, Rapidum and possibly Haltern¹²²¹. Cases when this structure was identified are extremely rare, although excavations of headquarters buildings are usually consistent. Apart from Lauriacum fortress, erected in the second half of the 2nd century A D., and maybe Haltern, the existence of a building delimiting *locus gromae* seems rather a feature of the East. The special character of the fortification at Arutela is probably due to its garrison, *Suri sagittarii*, more familiar with the monuments of the type.

In Dacia traces of a possible *groma* base were found in Turda (Potaissa)¹²²². In addition, at Sarmizegetusa, the precise location of *groma* under the form of a 67 × 60 cm stone base was identified¹²²³.

Similarly, at Romita magnetometric measurements plan clearly show, this time precisely by *via principalis* and *via praetoria* junction, four points that probably represented the columns bases of a *tetrapylon*¹²²⁴.

Principia

Dimensions of the headquarters building are assumed to be of 9.70 × 16.30¹²²⁵, however it was partially excavated, preserving the front only, therefore part of the courtyard. The eastern side, the single completely preserved is 9.70 m long with 0.60 m thick walls¹²²⁶. The entrance into *pricipia* has a 1.70 m span, being paved with stones bound with mortar. It is

¹²¹⁸ Generally, when the land was divided, the main orientation lines were exactly, or approximately, north-south and east-west, see Dilke 1971, 86. Therefore, *kardines* and *decumani* are oriented north-south and east-west (Frontinus), but usually the east orientation is preferred (*Hyginus Gromaticus*) (*apud* Dilke 1971, 86–7), as in the case of Arutela as well.

¹²¹⁹ ... *gromam Te[r]tiis Augustani[s].....restituit*, *Ten[a]gino Prob[us] pra[eses] prov[inciae] Nu[m]idiaie dedicavit* (CIL VIII 2571), re-read by Kolbe 1974, 284. See also Cagnat 1908.

¹²²⁰ After Kolbe 1974, 293, 295.

¹²²¹ Fellmann 1958, 139 sqq., Abb. 56, 58; Rakob, Storz 1974, 266; Petrikovitz 1975, n. 78; Johnson 1987, 140, Abb. 97. For some examples of *tetrapyla* and the restoration of the one by the entrance into the stone forum from Sarmizegetusa, see Étienne, Piso, Diaconescu 2004, pl. XXIX, XXX.

¹²²² Bărbulescu 1987, 129.

¹²²³ The monument is not precisely by *decumanus maximus* and *cardo maximus* junction, being slightly withdrawn to the entrance on the portico line from the northern side of the stone forum, subsequently moved southwards after Étienne, Piso, Diaconescu 2004, 64, pl. XXXII, 2, B. 33, 36. The base itself is almost 2.00 m.

¹²²⁴ Franzen, Matei, Marcu 2007, Fig. 1, *passim*.

¹²²⁵ Vlădescu 1986, 54.

¹²²⁶ Poenaru-Bordea, Vlădescu, Stoica 1979, 129.

rather small compared to common 2.50 m of regular entrances, but this deficiency seems to be solved by a completely unusual second entrance, also directly to the courtyard, positioned on the building northern side at about 2 m from the northeast corner of the structure. The opening was noticed only as a result of pavement preservation this width connecting it with the alley, which bordered the headquarters building on the northern side at 1.00 m distance¹²²⁷.

The **courtyard** is largely paved with cobbles. Exceptions are the courtyard edges on the eastern side, on an unpaved 1.50 m stretch and in the opposite side, where a portion of 3.10 × 8.20 is paved by smaller cobble¹²²⁸. Areas where pavement differs from that in the middle were considered rooms, some being used as *armamentaria*¹²²⁹. Such differences in the pavement composition could have been the result of the existence of a portico, quite normal in this area, especially since sizes are so variable. Portico depths are usually of 4.00–5.00 m¹²³⁰, but considering the very small dimensions of the headquarters building at Arutela is a smaller depth is possible.

Inside the courtyard, close to its centre, a drainage channel was found¹²³¹, while by the outer western (preserved) end of the north wall a water tank made of stone and brick, sized c. 1.00 × 1.00 meters was discovered¹²³².

Horreum

A rectangular building sized 11.10 × 9.80 m (108.78 m²), having c. 0.70 m thick walls supported by buttresses on the inside, entrances on three sides and a series of small stone bases measuring approximately 1.50 × 0.50 m on the central longitudinal axis were identified in *praetentura sinistra*¹²³³. At 1.80 m from the building, between it and *via praetoria*, an 8.50 m long and 0.40 meters thick parallel wall was found, which was interrupted at some point, creating a paved entrance threshold of 0.60 m wide¹²³⁴. The excavators identify this building as basilica type, functioning as meetings hall, the rectangular stone foundations of the central axis serving to support the gable roof, while the pilasters from the inside, to display trophies or carry statues¹²³⁵.

N. Gudea deemed this structure *horreum*, however failed to bring any supporting arguments¹²³⁶. Indeed, the building has almost all features of such buildings. The only inconsistency is its excessive width¹²³⁷ and the missing exterior buttresses against the walls especially since it was 0.70 m wide. Finally, the absence of external buttresses could have been supplied by internal buttresses, whose obvious primary role was to carry the floor. The floor stood on these buttresses and the stone bases located on the central longitudinal axis.

¹²²⁷ A similar alley was identified on the opposite side after Tudor, Poenaru-Bordea, Vlădescu 1969, 18.

¹²²⁸ Vlădescu 1986, 54–5.

¹²²⁹ Vlădescu 1986, 55.

¹²³⁰ In the fort at South Shields for example, the portico width is at some point of 3.50 m, Taylor 2000, 27.

¹²³¹ Poenaru-Bordea, Vlădescu, Stoica 1979, 129.

¹²³² Vlădescu 1986, 55.

¹²³³ Vlădescu 1986, 57–8.

¹²³⁴ Vlădescu 1986, 58.

¹²³⁵ Tudor, Poenaru-Bordea, Vlădescu 1969, 21.

¹²³⁶ Gudea 1997d, 91.

¹²³⁷ General storehouse dimensions are 20–40 m × 6–10 m, Manning 1975, 106, Tab. 3; Gentry 1976, 7; Taylor 2000, 38–9, Tab. 5.

Theoretically, between this central wall and buttresses on the wall's inner edge supporting pillars were required, either of stone or wood¹²³⁸.

It is clear, also, that on the southern side from *via praetoria*, where no entrance was identified, a loading platform existed, whose outer support wall was found between *via praetoria* and the building. The so-called entrance or opening, of only 0.60 m, represents probably the straicase base leading to platform top. Entrances on the other three sides are rather holes or vents, frequent in granaries case¹²³⁹.

Fabrica (?)

In *praetentura dextra* were supposed two buildings based only the traces left by 'isolated collinear stones'¹²⁴⁰, observing that their walls were timber-made¹²⁴¹. On the other hand, inside there were also identified floors of crushed bricks and a few alleys for access to the main roads¹²⁴². The space is approximately 20.00 × 9.00 m, slightly wider in the southern half¹²⁴³. The building was appreciated workshop following the discovery in the southern extremity of a crucible and slag waste¹²⁴⁴.

In *latus dextrum* were observed prints of two perpendicular 'walls', identified due to the emergence of a cobble pavement in the area¹²⁴⁵.

It would be very interesting to find out how long this fort was occupied. Single information on the occupation levels of the interior provide for only one¹²⁴⁶, without knowing with certainty how thick it was. The plans given by the excavators show that the occupation level, described here as a 'black ashy soil level'¹²⁴⁷, is quite consistent and, for lack of a measuring unit, its thickness could be assessed portion by portion. Thus, as the only known element is the enclosure wall, 1.60 m thick, it is clear that the layer mentioned by archaeologists is in certain areas more than 1.00 m¹²⁴⁸. Or, it is hard to believe that within a fort a single occupation level could represent, even together with the demolition layer of the buildings, a compact soil of 1.00 m. Therefore, I presume Arutela had several occupation horizons. Additionally, certain discovered artifacts account for longer occupation. Thus, there were unearthed two yellow-green glazed pottery fragments specific to the end of the 2nd or beginning of the 3rd centuries AD.¹²⁴⁹. Moreover, the brooches found in the fort of Arutela generally fall into the 2nd—3rd centuries AD, specifying that Aucissa and returned foot

¹²³⁸ A combined system for floor support is found with the granaries of the fort at Birdoswald, Taylor 2000, 61. The floor is supported by a small central wall and by timber posts between this wall and the exterior ones. In this fort and those at Housesteads and South Shields, another combined support system of floor is found, consisting of *pila* on both sides of a central wall, Taylor 2000, 61.

¹²³⁹ The only impediment to considering them vent shafts is the width of two of them, rather great, of 1.20, respectively 1.70 m. Typically, such shafts are wide 0.30–0.75 m, Gentry 1976, 11.

¹²⁴⁰ Tudor, Poenaru-Bordea, Vlădescu 1969, 22.

¹²⁴¹ Poenaru-Bordea, Vlădescu 1969, 106.

¹²⁴² Tudor, Poenaru-Bordea, Vlădescu 1969, 22.

¹²⁴³ Poenaru-Bordea, Vlădescu, Stoica 1979, Fig. 10.

¹²⁴⁴ Tudor, Poenaru-Bordea, Vlădescu 1969, 22.

¹²⁴⁵ The construction was originally deemed *horreum*, and subsequently barracks, Tudor, Poenaru-Bordea, Vlădescu 1969, 23; Poenaru-Bordea, Vlădescu, Stoica 1979, 135.

¹²⁴⁶ Tudor, Poenaru-Bordea, Vlădescu 1969, 12.

¹²⁴⁷ Tudor, Poenaru-Bordea, Vlădescu 1969, Fig. 3.

¹²⁴⁸ At least this clearly results from the provided drawings, see Tudor, Poenaru-Bordea, Vlădescu 1969, Fig. 3.

¹²⁴⁹ Tudor, Poenaru-Bordea, Vlădescu 1969, 24, Fig. 20, 3–4.

brooches are characteristic to the second half of the 2nd, respectively early 3rd centuries AD¹²⁵⁰. The coins found inside the fort date also until Elagabalus¹²⁵¹.

Troop

Suri sagittari built something in AD 138 at Arutela, probably quite the fort, under the command of Dacia Inferior procurator¹²⁵². A stamped brick from Drobeta recording the *Sv(ri) sa(gitarii)* is, also, dated in the first half of the 2nd century AD¹²⁵³. Given the relatively large distance between the forts on Olt River and the one on the Danube, the troop's quartering, at some point, at Drobeta might be supposed, thus confirming the builder skills of Syrian archers.

Other inscriptions from Romula recording the irregular unit are dedicated by a *praepositus* (?)¹²⁵⁴ and an *immunis*, who erects a tombstone to his daughter¹²⁵⁵. Still at Romula were discovered a number of stamped tiles and bricks, some being used in 'Philippus Arabs Wall'¹²⁵⁶, which could have been easily used as building materials¹²⁵⁷. Latest views argued that no fort existed at Romula, even though it is represented on P. Polonic's sketches. If so, a military material that rich is quite difficult to explain¹²⁵⁸.

At *Numerus Syrorum* (Mauretania Tingitana), several inscriptions of the 3rd century AD record the formula *domus Romula*, one of the evidence on the unit transfer from Dacia in Mauretania under Septimus Severus¹²⁵⁹. It could have occurred once with *Sex. Iulius Iulianus*'s advance, a tribune of *n(umeri) Syrorum M(a)lvensium* (CIL VIII, 9381, 20 945 = ILS 2763) leading 1.000 Thracian recruits, from Thracia to Mauretania Tingitana¹²⁶⁰, however the *numerus* was more likely present in Mauretania at the time when the Thracians were transferred¹²⁶¹.

Tile stamps of the same *numerus* were discovered south Romula in the fort of Slăveni, quartering *ala I Hispanorum*, since a number of inscriptions and stamps registering the troop

¹²⁵⁰ For technical details and accurate dating of brooches discovered at Arutela see Cociş 2004, inv. no. 676, 677, 714, 755, 801, 1145, 1571, 1826, 1827, 1828.

¹²⁵¹ Only four discovered coins date from the 3rd century AD, two issued under Septimius Severus, one under Caracalla and the last under Elagabalus, yet coin finds are in general few, Tudor, Poenaru-Bordea, Vlădescu 1969, 37–40; Poenaru-Bordea, Vlădescu, Stoica 1979, 144.

¹²⁵² CIL III, 12601a = 13793 = IDR II, 575; CIL III, 12601b = 13794 = IDR II, 576.

¹²⁵³ AE 1978, 695. D. Benea identifies on these stamps *coh. I sagittariorum milliaria* that might have originated from Syria, see Benea 1978, 206, no. 195, pl. 1.

¹²⁵⁴ IDR II, 341.

¹²⁵⁵ CIL III, 1593 = 8032; AE 1914, 120. Based on these inscriptions and *Sex. Iulius Possessor*'s career (CIL II, 1180 = ILS 1403 = AE 1983, 976) M. P. Speidel considered that the *numerus* was camped here, Speidel 1973, 169.

¹²⁵⁶ Tudor 1978, 116; Petolescu 1995, 36.

¹²⁵⁷ See also Speidel 1973, 169, n. 5.

¹²⁵⁸ See Speidel 1973, 174. Evidently, it is not excluded that the Syrians were camped inside the city since this is the situation at Sala in Mauretania Tingitana where *coh. II Syrorum* or *ala Syrorum* were also camped, see Roxan 1973, 847. Besides, this is frequent in the Eastern parts of the Empire.

¹²⁵⁹ Speidel 1973, 171, n. 24 with bibliography. Such option is disputed by H. Wolff and C. C. Petolescu who consider that the unit from Dacia differs from that in Mauretania, see Wolff 1975, 139 sqq., Petolescu 1983, 44. H. Wolff argued that the formula *domus Romula* used in *Numerus Syrorum* does not register the *numerus* from Dacia in Mauretania, and that the formula *sagittariorum* is attached to the troop name only in Dacia, hence the troops are different. Nonetheless, one of the tombstones from *Numerus Syrorum* records *Quadrati Suri Sagittari*, Speidel 1977, n 1. C. C. Petolescu considers that the Seville inscription mentioned the name of Malvensis precisely for distinguishing it from the homonym *numerus* headquartered in Mauretania Caesariensis at Lala Maghnia, see also Petolescu 2002, 144.

¹²⁶⁰ Rowell 1936, 2554.

¹²⁶¹ Speidel 1973, 172; Speidel 1977a, 172–3.

name were discovered¹²⁶². In this context I remind the inscription from Seville from which we learn that *Sex. Iulius Possessor* cumulated as *praepositus* the command of *I Hispanorum* and *numerus Syorum sagittariorum*. Therefore, either a joint garrison or separate, yet close garrison forts are presumed (see *supra*).

Finds consisting of Eastern specific weaponry in the fort at Arutela also confirms the Syrians in the fort. The most significant pieces are the three facet-cut arrowheads, the so-called 'römische dreiflügelige Pfeilspitzen'¹²⁶³. Beside them, there was identified a brooch of a type known only in Syria¹²⁶⁴, best analogies, dated AD 165–256, coming from the fort at Dura-Europos¹²⁶⁵. Once again, the Syrians are confirmed at Arutela.

Evidence of the presence here of an *eq(ues) libra(arius)* (CIL III 12,602 = IDR II, 582) and a decurion (CIL III 12,603 IDR II = 581) of *coh. I Hispanorum* was also identified at Arutela. Proof that this troop activated in the Olt area under Trajan and/or Hadrian is rather clear (see *supra*). It is possible that the unit was stationed in the fort of Sâmbotin, near Arutela, the only argument being insofar the finding of a troop tile stamp¹²⁶⁶. A *librarius* and a decurion of the Hispanic troop could have been sent to the fort of Arutela to complete the administrative and command staff of the Syrian troop.

40. BOIȚA (*Caput Stenarum*)

The fortification of Boița, located at 1 km distance from Turnu Roșu pass, was firstly and accurately identified following the excavations of M. Macrea from autumn 1957¹²⁶⁷. The excavation in the enclosure area revealed two parallel walls of c. 1.20 m thickness, the space in-between—between 0.70–3.40 m—being filled with debris. In other parts of the enclosure, the foundation of the outer wall was much wider, between 2.40–2.50 m, compared to that of the inner wall (1.20 to 0.85 m)¹²⁶⁸. A double enclosure wall was assumed here as well, a feature also specific to other forts on Olt line (see *supra*)¹²⁶⁹, however the 1958 excavations found that the outer wall was built in a ditch, assuming there are actually two phases of the enclosure¹²⁷⁰. It was also noted that the enclosure wall is not double on the eastern and northern sides and that the fortification sides are not parallel to each other, it being approximately surfaced 46 × 47 m¹²⁷¹. Furthermore, N. Lupu argues that the walls were filled in-between with a filling soil of same colour, which had no impurities, so it may be supposed that the two walls might have been contemporary at least at some point¹²⁷².

The span of the only known gate on the west side, is of only 2.60 m¹²⁷³, hence traffic must not have been high. Moreover, it was not even intended with such a small fort.

¹²⁶² IDR II, 496, 498, 499, 510, 526.

¹²⁶³ Tudor, Poenaru-Bordea, Vlădescu 1969, 29, Fig. 26/2. The excavators describe them as Hellenistic type arrowheads, however, during the 2nd–3rd centuries AD, they are rather characteristic to populations coming from Asia, those at Arutela framing types 2 and 4 described by W. Zanier, Zanier 1988, 7–14.

¹²⁶⁴ Cociș 2004, inv. no. 1571.

¹²⁶⁵ Toll 1949, 62, pl. XV/124.

¹²⁶⁶ Avram, Avăsiiloaiei 1995, 193–5; Petolescu 2002, 110.

¹²⁶⁷ Macrea 1959, 429–37.

¹²⁶⁸ Lupu 2003, 61.

¹²⁶⁹ Macrea 1959, 437.

¹²⁷⁰ The excavations of 1959 focused on the civil settlement, Lupu 1961, 416.

¹²⁷¹ Lupu 2003, 57, 61.

¹²⁷² Thus, the in-between filling of the walls was the foundation of the patrol road and the proper *agger*, Lupu 2003, 61–2.

¹²⁷³ Lupu 2003, 62.

Single information on the fort interior confirm the existence of timber constructions (?), which ‘belonged to a previous fort, built by a Roman cohort’,¹²⁷⁴ without further detailing. The reason for which N. Lupu supposed that timber constructions belonged to a previous phase is probably the greater depth (?) (1.70 m) at which were discovered, which may be irrelevant.

Troops

Stamps of *leg. XIII Gemina* were found and ascribed to the activities of some vexillations during the period of the Dacian wars¹²⁷⁵ or used as an argument to prove the stationing here of legionary vexillations.¹²⁷⁶ Another tile stamp records a cohort with number I, probably *coh. I Flavia Commagenorum*, a troop which appears on many tile stamps from Dacia Inferior forts.¹²⁷⁷

N. Gudea assigned this stamp to *coh. I Tyrriorum Sagittariorum*.¹²⁷⁸ A *coh. I Tyrriorum* is registred for the first time in Moesia Inferior in AD 99 (CIL XVI, 45), subsequently in Dacia Inferior in AD 129/30 (Weiß 1997, 244), and then in the same province in AD 140 (IDR I 13, RMD 39) and 146 (RMD 269). Two commanders, troop *praefecti*, appear on two funerary inscriptions from Perugia (PME A 176, CIL XI 1934) and Salona (PME V3, CIL III 8716). An *ignotus* is probably mentioned on a tombstone from Yalovaç.

41. BOROȘNEUL MARE

More extensive excavations in this fort were performed only in 1973 and 1974 by Z. Székely (pl. 28)¹²⁷⁹. The remains of gates *praetoria* and *decumana* were identified. Although Z. Székely noted that no other *portae* were noticed on the other sides,¹²⁸⁰ N. Gudea stated recently that only one gate of one of the sides was dug, rendering in plan *porta principalis sinistra*.¹²⁸¹ The gates towers are rectangular, being outwards projecting. The fort’s enclosure wall was c. 1.35 m wide. The sizes of the fortification measured by the excavator of the 1970 are 90.00 × 70.00 m.¹²⁸² It is very interesting and curious that dimensions provided by N. Gudea vary greatly: it is argued that the enclosure wall was 1.50 m wide and that the fort was 130 × 198 m, therefore, more than double the known dimensions.¹²⁸³ In addition, should we consider the graphic scale appears next to the fort plan made by N. Gudea, we would note that fort sizes are of 150.00 × 120.00 m, while the two rendered gates are *portae principales*. Or, Z. Székely maintained *porta praetoria*, respectively *porta decumana* were uncovered.¹²⁸⁴ Excavations inside the fort were not carried out.

Troops

It was assumed that the building inscription (AE 1974 564 = IDR III / 4, 325) from Boroșneul Mare proved that *ala I Batavorum* built or restored something in the fort, the last

¹²⁷⁴ Lupu 2003, 57.

¹²⁷⁵ See Gudea 1997d, 70.

¹²⁷⁶ Lupu 2003, 61.

¹²⁷⁷ See Petolescu 2002, 95–7; Marcu 2004, 577.

¹²⁷⁸ Gudea 1997d, 70.

¹²⁷⁹ Székely 1975, 343.

¹²⁸⁰ Székely 1975, 343.

¹²⁸¹ Gudea 1997, 64, no 40.

¹²⁸² Székely 1975, 344.

¹²⁸³ Gudea 1997d, 64.

¹²⁸⁴ Székely 1975, 343.

line of the inscription being read *ala I Bat(avorum)* by I. I. Russu¹²⁸⁵. Following the reading of the inscription CIL XVI 90 = IDR I 14, it was supposed that this was *ala* originally stationed in the fort at Boroşneul Mare¹²⁸⁶, however the fortification sizes are evidently too small to allow the quartering here of an *ala milliaria*.

In fact, the last line of the inscription recording the troop reads *ala Flau[ia]*, as correctly re-read by I. Piso¹²⁸⁷. A brick preserving entire stamp found in the north-west defence ditch of the fort records another cavalry troop, *AL(a) PALM(yrenorum)*¹²⁸⁸. Two similar, yet fragmentary stamps were read by J. Szilágyi *al(a) (I)Pa(nnoniorum)*¹²⁸⁹ and *al(a) p(rima) A(sturum)* by Z. Székely, I. I. Russu and M. Zahariade¹²⁹⁰. I. Piso rectified their reading showing clearly that they mention yet again A F AL A(?)S, short for *Al(a) F(lauia) al(a) As(turum)*¹²⁹¹. The last troop was probably the garrison of the neighbouring fort at Hoghiz, where tile stamps of the troop with the abbreviation AL AS or ALA I A were discovered. I. Piso associates *ala Flavia*, recognized in the inscription and stamps, with *ala I Flavia Gaetulorum*¹²⁹², although the author noticed that the troop number lacked from both the stamp and inscription from Boroşneul Mare¹²⁹³. In conclusion, the building inscription recording *ala Flavia* is dated after AD 118 and prior AD 129, when the province was governed by Plautius Caesianus (PME, E 3)¹²⁹⁴. This unit might have left Dacia until AD 140, as it is no longer registered in the diploma of the same year and by AD 145 probably returns to Moesia Inferior¹²⁹⁵.

Recently, when discussing the inscription from Boroşneul Mare, B. Lőrincz and P. Holder identify as well, quoting I. Piso, *ala Fla(ua)* instead of *ala Bat(avorum)*¹²⁹⁶. P. Holder assumes, however, that this *ala* is identical with *ala Fla(ua) Gallorum* the main reason being precisely the missing number, the name abbreviation of this unit usually did not specify it, unlike *ala I Flavia Gaetulorum*, argument that does not seem satisfactory¹²⁹⁷.

Within the defence ditch corresponding to the stone enclosure of the fort at Boroşneul Mare, there were additionally discovered two stamped bricks of a troop ALA GAL, respectively (AL)A GALL (IDR III / 4, 326–7)¹²⁹⁸, identified by most scholars with *ala I Claudia Gallorum Capitoniana*¹²⁹⁹. This unit is transferred from Moesia Inferior, where it was

¹²⁸⁵ Russu 1978, 560–1. Zs. Székely who published first the inscription from Boroşneul Mare read *ALA I LAT[OBIC(ORUM?)]*, Székely 1975, 345.

¹²⁸⁶ Russu 1978, 560–1. The inscription mentioned was used as one of the arguments according to which south-eastern Transylvania originally belonged to Dacia Superior, see discussion and references in Petolescu 2000, 76.

¹²⁸⁷ Piso 1999, 83.

¹²⁸⁸ Russu 1974, 39, n. 4; Székely 1975, 344; IDR III/4, 328; Gudea 1997d, 64; Vlădescu 1983, 39.

¹²⁸⁹ Szilágyi 1946, 19.

¹²⁹⁰ Székely 1944, 486; Russu 1957, 362; Zahariade 1976, 485. The latter re-reads the stamp as *al(a) (Pa)lmyrenorum*, Zahariade 1977, 264.

¹²⁹¹ Piso 1999, 83, fig. 2, 3.

¹²⁹² For the troop history see Spaul 1994, 124–5; Piso 1999, 85.

¹²⁹³ The lack of the number even from a building inscription seemed ‘ce qui est surprenant’, Piso 1999, 83.

¹²⁹⁴ Piso 1999, 86.

¹²⁹⁵ Piso 1999, 84–5.

¹²⁹⁶ Lőrincz 2001, 15; Holder 2003, 105, n. 14.

¹²⁹⁷ Holder 2003, n. 14.

¹²⁹⁸ Székely 1975, 344.

¹²⁹⁹ Gostar 1966, 181; Russu 1972, 66; Speidel 1974, 377; Vlădescu 1983, 39; Aricescu 1977, 53–4; Strobel 1984, 111; Spaul 1994, 80–1; Petolescu 2002, 69. D. Tudor considered that these stamps more likely indicated *ala Gallorum et Bosporanorum*, Tudor 1978, 331.

evidenced in AD 92 (Petolescu, Popescu 2004, 69–76), 97 (Weiß 1997, no. 4), 105 (CIL XVI 50), 111 (RMD 222) and 118–119 (Eck, MacDonald, Pangerl in 2002, no. 3) (?) in Dacia Inferior¹³⁰⁰. In addition, a *tegula* bearing the AL GAL stamp was found in civil settlement from Reci¹³⁰¹. The tile stamps from the fort of Slăveni exhibiting the abbreviation AL CL, which most probably belonged to this unit, were assigned chronologically to the period of the Dacian wars¹³⁰². Finally, because a troop decurion was mentioned in an inscription from Mauretania Caesariensis, it was assumed that it was displaced here under Septimius Severus¹³⁰³. Within the inscription, the ethnic name *Gallorum* is omitted, being recorded only as *ala I Claudia Kapitoniana*.

The only one who doubted identification of the troop recorded on Boroşneul Mare stamps with *ala I Claudia Gallorum Capitoniana* was Z. Székely, arguing that bricks from Slăveni exhibited a different abbreviation designating this troop as AL CL¹³⁰⁴. Further on, the author wondered whether the troop attested at Boroşneul Mare by ALA GAL stamps is one troop unknown at the time¹³⁰⁵. Even though the author's arguments took into account the two different stamp types, which theoretically should not prevent the equivalence of the mentioned *ala* troops, he accurately deduced that the troop at Boroşneul Mare was not the same with the cavalry troop at Slăveni. The most likely candidate that can be found on Boroşneul Mare stamps is most probably *ala Gallorum Flaviana*, unit that appears as I mentioned, almost always recorded without a number and usually with the ethnic name immediately after *ala*, the same with the troop mentioned in the building inscription mentioned above¹³⁰⁶.

*Ala Gallorum Flaviana*¹³⁰⁷ was originally part of Moesia Inferior army, being recorded in diplomas from AD 92 (Petolescu, Popescu 2004, 269–76), 99 (CIL XVI 44), 105 (CIL XVI 50) and 118/9 (Eck, MacDonald, Pangerl 2002, 409). By AD 132 the troop would be transferred to Moesia Superior, as mentioned in AD 132 (RMD 247) and 161 (RMD 55) diplomas. The unit name is abbreviated *Gallorum Flaviana* in all diplomas mentioned and number *I* was included only in the diploma from AD 159/160 (CIL XVI 111). Inscriptions recording the unit, mention its name as *ala Flaviana Gallorum* (CIL VIII 21037) or *ala Flaviana* (CIL V 2841). The question is whether *ala Gallorum Flaviana* was ever part of Dacia Inferior army or dedicated the inscription when the territory of the future province Dacia Inferior was still part of Moesia Inferior. I. Piso, when examining the Boroşneul Mare inscription and the mentioned procurator situation (?), argues it was dedicated between AD 118–129¹³⁰⁸. It is hard to say to which provinces belonged the fort at Boroşneul Mare when the inscription was made, however the cavalry troop's transfer from Moesia Inferior to Moesia Superior might have occurred at the time of the reorganization by the beginning of Hadrian's reign. Therefore, *ala Gallorum Flaviana* had never been part of Dacia Inferior army, being present in the fort at Boroşneul Mare when it still belonged to Moesia Inferior by the beginning of Hadrian's reign.

¹³⁰⁰ In Dacia Inferior the troop is mentioned in the military diplomas of AD 122 (Pferdehirt no. 20); 129/30 (Weiß 1997, 243–6); 140 (IDR I 13 = RMD 39) and 146 (RMD 269).

¹³⁰¹ IDR III/4, 315. For the significance of military stamps in civil environment see Marcu 2004, 584–5.

¹³⁰² Petolescu 2002, 69.

¹³⁰³ CIL VIII, 8828 = ILS 6889; Speidel 1973, 378.

¹³⁰⁴ Székely 1975, 344.

¹³⁰⁵ Székely 1975, 344.

¹³⁰⁶ See Marcu 2005a.

¹³⁰⁷ For a short troop history see Spaul 1994, 115–6.

¹³⁰⁸ Piso 1999, 86.

If *ala* stations at Boroşneul Mare only by the beginning of Hadrian's reign and possibly under Trajan then, the troops succession in this fort is still unclear. Single military units also evidenced at Boroşneul Mare are *coh. I Bracaraugustanorum* and *coh. III Gallorum*.

Coh. I Bracaraugustanorum is recorded in first half of the 1st century AD in Dalmatia¹³⁰⁹, then in Mauretania Tingitana in the diploma of AD 88 (CIL XVI 159) and those of Moesia Inferior from AD 92 (Petolescu, Popescu 2004) and 99 (CIL XVI 44). Subsequently, the troop is listed in Dacia Inferior, mentioned by the diplomas of AD 122 (Pferdehirt no. 20), 129/130 (Weiß 1997, 244), 140 (RMD 39) and 146 (RMD 269). In the meantime, a *coh. I Bracar* or *Bracaror* appears in the diplomas of Moesia Inferior from AD 125 (Weiß 1997, 193), 127 (1997 Roxana, 287), 134 (CIL XVI 78), 145 (165 RMD) and 145 / 6 (ZPE 124, 279). J. Spaul mentions the troop including in Dacia Inferior diploma from AD 129/30 (ZPE 117, 244) and other authors in that of AD 167/8 (Eck, MacDonald, Pangerl 2001, no. 5).

B. Gerov acknowledges that there are in fact, two troops: *coh. I Bracaraugustanorum* and *coh. I Bracarum* or *Bracarorum*, claiming that in the diploma dated between 146–154¹³¹⁰ from Brestovene in Moesia Inferior appear simultaneously *coh. I Brac(arum)* and *coh. II Brac(ar)aug(ustanorum)*, therefore, a clear distinction between the two troop names is made¹³¹¹. An important, however not decisive argument, is the new diploma dated AD 146 (RMD 269) recording *coh. I Bracaraug(ustanorum)*, while a *coh. I Bracar(um)* appears in almost contemporary diplomas of AD 145 (RMD 165) and 145 / 6 (ZPE 124, 279). It is therefore concluded that there are indeed two troops with similar name *coh. I Bracaraugustanorum* and one *coh. I Bracarum*, one recruited from precisely Bracara Augusta and the other from *Bracares* in south-west Hispania.

The equivalence theory of the two troops was also disputed by M. Zahariade, who maintained the equivalence of *coh. I Bracar* in the AD 134 diploma (CIL XVI 78) with *coh. I Bracaraugustanorum*¹³¹². M. M. Roxan seems to endorse same theory when asserting that the troops name registered by military diplomas is not always relevant, even *coh. III Bracaraugustanorum* appears in diplomas from Britannia recorded either as *Bracaraugustanorum* (CIL XVI 48) or abbreviated as *Bracarorum* (CIL XVI 69) and *Brac.* (CIL XVI 70), or *coh. IIII Bracaraugustanorum* from Syria Palaestina recorded *Brac.* (CIL XVI 87) or in an inscription, *IIII Bracarum*¹³¹³. Therefore, if troops with similar name are identical, their movements would be from Moesia Inferior to Dacia Inferior, returning to Moesia after 140, the again moving to Dacia Inferior in 145 or 146, so to finally return to Moesia Inferior prior 157.

The above are supplemented by the inscription attesting a cohort prefect, who cumulates as *praepositus* also the command of *numerus Illyricorum* (ILS 2738 = CIL VIII 9358), probably garrison of the fort at Hoghiz during the first half of the 2nd century AD. B. Gerov argues that P. Aelius Marcianus is *praepositus n(umeri) Illyricorum* immediately after the completion of *coh. I Bracaugustanorum* prefect function, possibly after Hadrian's reign¹³¹⁴.

Given the rather strange movement of this troop, I believe that two troops with similar names probably existed. In addition, I mention that over the 2nd century, the troop appears as

¹³⁰⁹ Roxan, Eck 1997, 197.

¹³¹⁰ For the diploma dating see also Doruţiu-Boilă 1968, 398.

¹³¹¹ Gerov 1959, 205; Bakó 1980, 633.

¹³¹² Zahariade 1977, 263.

¹³¹³ RMD, p. 286, n. 5. See also Roxan, Eck 1997, 197–8.

¹³¹⁴ Gerov 1959, 204.

Bracaraug only in the diplomas of Dacia Inferior and never in those of Moesia, where the abbreviation is just *Brac.*, *Bracar* or *Bracaror*.

Tile stamps of *coh. I Bracaraugustanorum* were identified including in the fort at Boroşneul Mare, so the troop could have been stationed there probably during the first half of the 2nd century after *Gallorum Flaviana* left by the beginning of Hadrian's reign. *Coh. I Bracaraugustanorum* was replaced at Breţcu with *coh. I Hispanorum*. The stamp from the fort at Slăveni recording a *CIB* (IDR II 527) was assigned either to Briton troops or to *coh. I Bracaraugustanorum*¹³¹⁵.

The problem of Boroşneul Mare fort garrison remains unclear, because even *coh. I Bracaraugustanorum*, a *quingenaria* cohort, is still too large for a c. 0.65 ha fort, unless it was larger.

If a *coh. quingenaria* is too large for the fortification at Boroşneul Mare, it is useless to insist here on the impossibility of quartering a full strength *ala*. All this make me believe that the fort was occupied only by *vexillationes* of *ala Gallorum* or from *coh. I Bracaraugustanorum*, however the inscription dedicated by respective *ala* to Hadrian, allows the supposition that large part of the cavalry troop effectives were camped here. One solution would be that part of the unit would have been quartered in the fortlet from Comalău, located to almost 10 km north Boroşneul Mare fort. But, even in this situation *ala* was too large for an area of just over 1 ha as total area of the two mentioned forts. The small scale excavations did not identify the fort's timber phase, but only that of the stone wall. It is not excluded at all that the original fortification was in fact larger, so an *ala* could have been camped there. By comparison, I recall that a fort occupied by an *ala*, the neighbouring one at Hoghiz, measured for instance c. 3.63 ha.

Subsequently, P. Aelius Marcianus *praef(ectus) coh(ortis) I Augustae Bracarum*, commands as *praepositus a numerus Illyricorum* (CIL VIII 9358 = IDRE II 464 = PME A 44 = ILS 2738). Both functions are part of *militia prima*, therefore it probably commanded these units concurrently and at the same time, their joint fort garrisons. We could imagine again that the strength of both troops occupied somehow the forts from Comalău and Boroşneul Mare, however the area is still too small. This *numerus* may have been transferred here from Hoghiz, where it was stationed together with *ala Asturum*. As result, I believe that when *coh. I Bracaraugustanorum* was transferred from Breţcu to Boroşneul Mare, part of the troop remained in place with *coh. I Hispanorum*. The argument for which Boroşneul Mare might have been the basic garrison of this troop is the joint command of Marcianus, who obviously had to lead both *coh. I Bracaraugustanorum* and *numerus Illyricorum*.

42. BREȚCU

The fort of Breţcu is one of the most important fortifications in Dacia, especially from the strategical point of view, being placed by the entrance in Oituz pass from Transylvania (pl. 27). Systematic excavations were performed in 1925 by Em. Panaitescu and in 1950 by a team led by M. Macrea. The results of this research were partly published by M. Macrea and his team in 1951¹³¹⁶, while N. Gudea published 30 years later, a few additional details and the archaeological material discovered¹³¹⁷.

The only known evidence on this fort comprises elements of the enclosure, which is double and provided with circular corner towers. The stone phase of the enclosure was

¹³¹⁵ See the discussion on this diploma in Isac, Marcu 1997, 588.

¹³¹⁶ Macrea et alii 1951.

¹³¹⁷ Gudea 1980.

considered typical to either the 2nd century, even to its first half¹³¹⁸, or, due to the corner towers shape, to the 3rd century AD¹³¹⁹. Single forts from Dacia and Moesia Inferior equipped with such enclosure of parallel walls, however no circular corner towers, are those at Hoghiz and Drajna de Sus¹³²⁰. Regarding each double enclosure, there is a construction difference, in the case of Brețcu fort, the inside wall is not linked to the outer one, as sometimes the case at Hoghiz¹³²¹. M. Macrea's, his team and of D. Protase's conclusions were that the inside wall served as support for the patrol road¹³²². Conversely, N. Gudea argues that the partially excavated inner is not continuous for certain and it could represent buildings ends built in the enclosure area¹³²³. Nonetheless, the inner wall was identified including in the corners and each trench excavated into the enclosure area, therefore I believe that M. Macrea or D. Protase should be given credit.

The distance between the two walls is c. 4.00–6.00 m, extending in the gates area up to a 9.00–10.00 m, thus being composed as 'fighting platform'¹³²⁴. The two walls are practically implanted in the initial earthen rampart of the fort, without any relation between them.

It is interesting that the fortress is surrounded on three of its sides by two ditches, but there is no defence ditch on the southern side, instead a gravel layer was discovered over a width of 9.00 m from the wall, considered by M. Macrea to represent a road¹³²⁵. The lack of this defence ditch is explained by a relatively steep slope after a 36.00 m interval, which led to the conclusion that Brețcu valley flowed in ancient times much closer to the fort, right under the mentioned terrace¹³²⁶.

The fort gates and corner towers were also uncovered, thus establishing the southern orientation of gate *praetoria*. Corner and gate towers do not appear to have been inhabited. The gates planimetry is ordinary and they are not outwards projecting. The gates span is c. 4.00–5.00 m, but the size of *porta decumana* towers appears to be almost double compared to the others¹³²⁷.

The north-west corner tower is, unlike the other towers, slightly projected outwards, probably due to a constructional error. Otherwise, the other corner towers are practically part of the enclosure¹³²⁸.

Via sagularis was identified only on the northern side of the fortification, N. Gudea arguing it was inexistent on the other sides, as the case with other parts from Dacia¹³²⁹.

It is interesting that a water collecting ditch was discovered on three sides, of c. 0.90–1.00 m wide, whose route ran parallel to the enclosure wall by the inner edge of the rampart, being at 1.75 m from the enclosure wall on the southern side, at 2.90 m distance on the western side and at 3.50 m away on the eastern side¹³³⁰.

¹³¹⁸ Daicoviciu 1945, 110, n. 2; Gudea 1980, 297.

¹³¹⁹ Christescu 1937, 48–51.

¹³²⁰ Macrea et alii 1951, 288–9; Protase 1977.

¹³²¹ Macrea et alii 1951, 288.

¹³²² Macrea et alii 1951, 289; Protase 1977, 201.

¹³²³ Gudea 1980, 282.

¹³²⁴ Protase 1977, 195.

¹³²⁵ Macrea et alii 1951, 289.

¹³²⁶ Macrea et alii 1951, 291.

¹³²⁷ Referring to the gates, see Gudea 1980, 284–7.

¹³²⁸ See Gudea 1980, 287–8.

¹³²⁹ Analogies provided by N. Gudea refer to the forts from Bologna, where *via sagularis* is missing on one side and the fort at Râșnov-Cumidava, where it lacks entirely, Gudea 1980, 282.

¹³³⁰ Macrea 1951, 289; Gudea 1980, 283.

Inside the fort, the only clear evidence discovered by M. Macrea's excavations is found near the northern and southern enclosure. Thus, M. Macrea argued that in the area between the inner wall of the enclosure and the channel timber buildings were set, some of them functioning as workshops¹³³¹. Unfortunately, we have no other information about this area.

Em. Panaitescu excavated inside the fort two trenches that cross it diagonally, from the northeast corner to the southwest corner and from the northwest corner to the southeast corner¹³³², while M. Macrea dug another three trenches in the centre of the fort¹³³³. Irrespectively, no major buildings were identified, the walls being removed to the foundation. One of the most significant shortcomings concerning the Brețcu fort research is the loss of the documentation resulted from Em. Panaitescu's excavations, single data being reviewed and ordered by N. Gudea¹³³⁴. Another impediment is represented by the trenches width, which does not exceed 1.00 m¹³³⁵. The digs of 1950, revealed only the northern 11.60 m long wall long of a building from *latus dextrum* and parts of another two walls perpendicular on the northern wall ends¹³³⁶. They are 0.70 m wide and, if we compute the distance to *via principalis*, the building length was c. 22.00 m¹³³⁷. Inside, tiles and imbrices were discovered, plaster pieces underneath, a charcoal layer further below and, finally, under this layer, the virgin soil, the walls being built according to the technique of the fort enclosure wall¹³³⁸. Behind this building, a 30–40 cm thick occupation level and 'stone rows not bound with mortar' were identified, interpreted as foundation for wattle and daub walls¹³³⁹. Because many tiles and imbrices were also found in this area, it was assumed that tile roofing covered these timber constructions¹³⁴⁰.

Troops

Coh. I Hispanorum veterana is mentioned in Moesia diplomas from AD 92 (ZPE 148, 269–76), 99 (CIL XVI 44) and May 13, 105 (Pferdehirt 2004, 10). Further, this is the unit recorded by the Hunt papyrus¹³⁴¹ and Dacia Inferior diplomas of AD 129 (CIL XVI 75 = IDR I 10), 129/30 (ZPE 117, 244)¹³⁴² 118/140 (ZPE 141, no. 4), 140 (SCIVA 46 / 2, 193–5) and 146 (RMD 269). The stamped brick found at Sâmbotin (*Castra Traiana*) was dated, without stratigraphic consideration, in an early period or even during the Dacian wars, when the troop activated in the region¹³⁴³. Nearby, in the fort of Arutela a plate mentioning *Valerius Valerianus, eq(ues) libr(arius) c(o)hor(tis) I His(panorum) ex [v]oto pos(uit)* (CIL III 12,602 =

¹³³¹ Macrea 1951, 289.

¹³³² Panaitescu 1929; Gudea 1980, 288.

¹³³³ Macrea 1951.

¹³³⁴ Gudea 1980, 262–3.

¹³³⁵ For dimensions of all trenches see Gudea 1980, 264.

¹³³⁶ The more than 11.00 m long wall was considered to belong to a *praetorium*, Macrea 1951, 291.

¹³³⁷ If these are the building limits, the construction could have probably functioned as storehouse, Gudea 1980, 289–90.

¹³³⁸ Gudea 1980, 289.

¹³³⁹ Gudea 1980, 289. M. Macrea argues that behind these buildings traces of certain 'timber and clay barracks' were discovered (Macrea 1951, 291), without providing further constructional details or planimetry.

¹³⁴⁰ Gudea 1980, 289.

¹³⁴¹ Hunt papyrus was dated in AD 99 or AD 105–106, see Fink 1971, 217–27; Syme 1959; Rădulescu, Bărbulescu 1981, 355–8. F. Matei-Popescu argues that the date of this *pridianum* is September 17. 105, Matei-Popescu 2004, 213, n. 418.

¹³⁴² On other diplomas fragments of the same period, see Weiß 2002.

¹³⁴³ Avram, Avăsiiloaiei 1995, 193–5; Petolescu 2002, 110.

IDR II, 582) was found. Still from the fort of Arutela comes a silver medallion displaying the name of *Ter(e)nt(ius) dec(urio)* of the cohort of Hispanics (CIL III 12,603 = IDR II 581)¹³⁴⁴. N. Gudea agreed to the troop presence at Arutela as argument for the unit's transiting this area towards the fort of Brețcu, the one of Arutela being too small to have been able to accommodate such a cohort.¹³⁴⁵ It is though hard to believe that the tile stamp with the C HIS abbreviation found at Sâmbotin (*Castra Trajana*) reached here following the troop's transiting the area. In conclusion, I believe that the authors, who supported the early dating of artifacts evidencing the troop here, were right. In addition, because *coh. I Hispanorum veterana* mentioned in the papyrus Hunt was '*Buridavae in vexillatione*',¹³⁴⁶ at about 10 km south the fort of Sâmbotin, indicates this cohort is identical with troop *I Hispanorum* mentioned later in Dacia Inferior diplomas and the fact it was stationed in the area, which under Trajan belonged to Moesia Inferior, controlling the Olt sector upon its exit from Făgărașului and Căpățâni Mountains. Further more, the proof that the troop remains in the area after Trajan's reign (?) comes from the fort of Arutela, erected apparently under Hadrian and Antoninus Pius (see *infra*). It remains to be seen where the troop was stationed during its movements in the Olt region. It is hard to believe that the entire troop of Hispanics was quartered at Arutela, since it was probably built by *Suri sagitarii*, however troop vexillations seems to have activated in the area under Hadrian, without knowing which fort garrisoned them.

It is probable that the troop was the garrison of the fort from Brețcu, in northeast Dacia Inferior, where tile stamps bearing the unit's symbol were found. However, the 2.5 ha sizes suggest that beside this *quingenaria equitata* troop, other detachments were stationed there as well. *Coh. I Bracaraugustanorum* is also attested here by stamps.

Tile stamps of *coh. I Hispanorum* were also discovered in the neighbouring fort at Comalău¹³⁴⁷. Since it is possible that *coh. I Bracaraugustanorum* was moved in the Boroșneul Mare fort early under Hadrian, thus replacing *ala I Flavia Gallorum*, I presume that the troop of Hispanics reached Brețcu still in the same period, replacing *cohors Bracaraugustanorum*. W. Wagner considered that *coh. I Hispanorum* replaced *coh. I Bracaraugustanorum* after AD 129¹³⁴⁸.

Nevertheless, the issue of Brețcu fort garrisons remains unsolved, even though I agree that *coh. I Bracaraugustanorum* was stationed here in a first phase, followed by *coh. I Hispanorum*, as the 2.6 ha fort sizes are quite large, suitable for an *ala* or a *coh. milliaria equitata*. However, both troops appear to be *quingenariae*, as four or five *praefecti* of the first troop are known, even if the second is, apparently, *equitata* as well. Therefore, the fort accommodated effectives of other troops also or it remained partially occupied from some point onwards. The most likely possibility is that part of *coh. I Bracaraugustanorum* remained on site occupying the fort together with *coh. I Hispanorum*, since Boroșneul Mare fort is too small to fit the full strength (see *infra*). The logic of this solution is the two forts geographical location, Brețcu being obviously positioned in a more important strategic place.

¹³⁴⁴ The medallion comes from Gr.G. Tocilescu's excavations, Poenaru-Bordea, Vlădescu 1969, 101, n. 3.

¹³⁴⁵ Gudea 1980, 293.

¹³⁴⁶ Fink 1971, 217–27.

¹³⁴⁷ Gudea 1980, 293.

¹³⁴⁸ Wagner 1938, 150.

43. CASTRANOVA

Based on *Tabula Peutingeriana* a fortification between Romula and Pelendava, *Castris novis*, is confirmed in this area along Jiu River. No diggings were carried out.

44. CÂINENI (*Pons Vetus*)

Roman traces were discovered on a fairly large area of Căineni village. In a place called 'La Turnulețe' following the identification of a 1.50 m thick-walled tower, a Roman fort was supposed, however it was largely destroyed by Olt River¹³⁴⁹. On the other hand, its existence is uncertain, the little archaeological research invalidating in fact the fortification's existence¹³⁵⁰.

In Căineni commune, at **Râul Vadului** in the place named today 'Trajan's Gate' a Roman fortification was presumed, signalled earlier by Marsigli¹³⁵¹.

45. CÂMPULUNG-JIDOVA

The forts at Câmpulung-Jidova are located on *limes Transalutanus*, near Bran pass. The archaeological excavations started in the 19th century revealed two fortifications of 132.35 × 98.65 m (pl. 38) and 50 × 60 m, constructed at a distance of 200–300 m one from the other¹³⁵².

The enclosure of the first fort was built of stone mixed with bricks. In the second fort from Jidova the 19th century excavations led to many discoveries, but no buildings inside the fortification were identified. The fort gates, built according to the same techniques as the large fort enclosure, suggest similar construction dating. We have no accurate data for the troop identification, some researchers considering it *numerus*, because the sizes of only 50.00 × 60.00 m.

The four gates towers together with the interval or corner towers are rectangular, the gate ones being slightly outwards projected¹³⁵³.

In the fort's central area were investigated as follows: the headquarters building, a building with two apses, a *horreum*, and left the headquarters building, a structure that seems to be a *praetorium*. In *retentura* portions of a barrack were detected. Regarding the fort chronology, scholars argue for a possible construction date under Hadrian or by the end of the 2nd century AD, however supporting archaeological evidence is not adequate¹³⁵⁴.

It is interesting that among the four buildings in the fortification central part, the only one aligned to *via principalis* is the headquarters building (*principia*) (pl. 38). Thus, it is created a space of less than 15 m between the main road and the building with two apses, of about 3.00 m to the front of the granary and about 2.00–2.50 m between the road and the front of the building east of *principia*. Neither in the back are the buildings aligned to *via quintana*, such as normal. It was not discovered, but the granary exceeds by c. 2.00 m and the *latus sinistrum* building by 8.00–9.00 m, the outer limit of the rooms behind the headquarters building¹³⁵⁵. The

¹³⁴⁹ Tudor 1978, 287; Vlădescu 1986, 79.

¹³⁵⁰ Vlădescu 1983, 114.

¹³⁵¹ Marsigli 1726 (*apud* Tudor 1978, 297).

¹³⁵² For the forts description see Popescu, Petolescu, Cioflan 1984; Popescu, Popescu 1968; Popescu, Popescu 1970; Vlădescu 1986, 89–90; Gudea 1997, 79–81.

¹³⁵³ For details see Vlădescu 1986, 90.

¹³⁵⁴ Tudor 1936, 115; Bogdan-Cătănciu 1997, 44; Gudea 1997, 80. According to recent numismatic discoveries, the fort was abandoned under Philip the Arab, after Popescu, Petolescu, Cioflan 1984, 16.

¹³⁵⁵ The measurements were made unconventionally after the plan offered in Avram, Petolescu 1997, Fig. 6, so they can be wrong.

buildings withdrawn are explained, in the case of the granary by the need of manoeuvre space for loading and unloading goods, and in the case of the *latus sinistrum* building by the need of space for a portico. It is though hard to explain why the latter building was extended beyond the building line back when there was enough space between it and the fort east side¹³⁵⁶ and the position of the small building between *horreum* and *principia*. Where the back line of structures adjacent to the headquarters building exceeds that of its last rooms, like at Housesteads, there is another building in the fort centre, behind the headquarters building, *via quintana* being withdrawn towards *porta decumana*.

Principia

The long sides of the headquarters building are not equal, the building being slightly asymmetrical. It is approximately 34.70 × 30.40 m (1054 m²), the walls being of stone bound with mortar, the interior ones having 0.60 to 1.00 m thickness and the exterior ones c. 1.20 m thickness¹³⁵⁷. The building occupies 8.1% of the fort total area, which is remarkable since the proportion of headquarters buildings reaches the maximum of 7% and that in some *ala* forts of the Empire. Usually, the space occupied by headquarters buildings is 5 to 6% of the fort living area. The 1054 m² surface of the headquarters building from Jidova is appropriate in particular to *ala* forts of the Empire, those for infantry troops averaging 700 m². It is interesting that these dimensions of the headquarters building do not necessarily correspond to fort sizes, therefore, even though some *coh. milliariae* forts are similar in size to those of *ala*, they have a smaller headquarters building.

The **inner courtyard** of 19.00 × 14.30 m (271 m²) occupies 25% of the headquarters building, being flanked by three equally-sized rooms, of 4.30 × 4.30, deemed *armamentaria*¹³⁵⁸. We do not know where exactly from *principia* come the approximately 400 bronze and iron arrowheads¹³⁵⁹, but their location is likely in this area. Above the compartments a storey was supposed, however without any archaeological grounds¹³⁶⁰. The courtyard itself had an entrance from *via principalis*, was paved with cobbles and had a shaft in the southwest corner¹³⁶¹. Probably much of this structure from the headquarters building was left unexplored, therefore it is hard to say if there was or not a portico around the courtyard.

The **basilica** was sized 28.00 × 9.20 m (257 m²), similar proportions to the front of the headquarters building, occupying 24% of the fort. No entrance from the courtyard towards the *basilica* was identified, therefore passage must have been made through an opening with arches, whose bases could be placed on the continuous wall discovered between the courtyard and *basilica*, functioning as a stylobate. That is why probably no opening was observed.

Another oddity, common to other forts in Dacia, consists in the absence of a tribunal.

Back rooms. On the northern side of the *basilica* were uncovered three rooms, the strongroom being flanked by one room each, the one in the west being provided with

¹³⁵⁶ It is possible, however, that another structure was also set in this space.

¹³⁵⁷ Inner walls are of only 0.60–1.00 m, after Vlădescu 1986, 90.

¹³⁵⁸ Popescu, Popescu 1970, 257; Tudor 1978, 282. In these rooms, only parts of the partition walls of the three rooms on the eastern side of the headquarters building were identified. Thereafter a similar, in mirror, situation was assumed for the opposite side.

¹³⁵⁹ Tudor 1978, 284.

¹³⁶⁰ The solution of the access to this storey is solved by D. Tudor by wooden stairs placed in the courtyard of the headquarters building, Tudor 1978, 282.

¹³⁶¹ Tudor 1978, 282.

*hypocaust*¹³⁶². The mid room was sized 5.50 × 6.30 m, without having any further indication if under it had been identified another room. Rooms located on both sides of the strongroom have impressive dimensions of 6.30 × 10.15 (63.90 m²), so it is almost certain that they were compartmented, since the maximum values found in other forts are around 5.00 × 5.00 m. In fact, when D. Tudor explained the heating system found on the eastern limit of the back rooms, maintains that *hypocaustum* was built in a 'small room' of 4.30 × 5.55 m¹³⁶³. So, the partition of the spaces flanking the strongroom is indirectly proved.

Horreum

At 14.00 m west the headquarters building, in *latus dextrum*, there is a large storehouse sized 34.40 × 12.95 m (445.4 m²), with thick walls supported by external buttresses, eight along each long side and three on the short side from *via quintana*. The buttresses have dimensions of 0.80 × 0.90 × 0.95 meters and 1.20 m.¹³⁶⁴ Access was probably made from *via principalis*, since only here buttresses are missing. Moreover, in order to create room for manoeuvre, the front of the building is withdrawn by a few meters from *via principalis*, not being aligned to the front of the headquarters building. It would be very interesting to learn what the excavators understand by the discovery 'on the floor (*of some*) charred beams, spaced at equal intervals in the form of rectangles, (*which*) indicate the existence of a framework for roofing support. The rectangles are so disposed that they divide the building interior into three aisles'¹³⁶⁵. Firstly, I do not understand what the authors mean by floor. What kind of floor was there, since posts or supporting walls were not identified? Or, these traces of carbonized wood might be explained precisely as floor carriers or if they were part of the roof, it is interesting that only it was put fire at certain point. Most likely however, the grid of charred beams represented the floor framework, which was originally placed on small stone pillars that logically, would be normally found in front the beams junction. Existence of a heightened floor is obvious, since on all sides, vent holes or spaces erroneously identified as entrances, were discovered in walls.¹³⁶⁶

Between *horreum* and *principia* a very small building was discovered (10.00 × 8.00 m), whose northern side consisted of two apses (Fig. 36).

It is hard to imagine the function of this building as it could not have been theoretically a small bath due to its dimensions. They would be hypothetically possible for a private bath, however the building is set between a *horreum* and *principia* and not near the headquarters building. Moreover, the construction technique consisting of stone bound with soil only¹³⁶⁷ prevents a functionality that would require perfect impermeability. However, inside were discovered the remains of a heating installation.

This heating installation expands into including the two unequal apses. Perhaps for this reasons the excavators suggested it could be identified with officers' quarters¹³⁶⁸. I wonder, however, whose officers, as an individual building housing officers is not known in auxiliary

¹³⁶² Tudor 1978, 282.

¹³⁶³ Tudor 1978, 282.

¹³⁶⁴ Tudor 1936, 21.

¹³⁶⁵ Popescu, Popescu 1970, 257. This 'grid' may be observed in the plan provided by D. Tudor, Tudor 1978, Fig. 77.

¹³⁶⁶ Popescu, Popescu 1970, 257. One ventilation hole was noticed on each of the short sides, and three such vent spaces on each long sides.

¹³⁶⁷ After Popescu, Popescu 1970, 257.

¹³⁶⁸ Popescu, Popescu 1970, 257.

troop forts of the Empire, except the commander's building. In support its function as *fabrica* I mention the unprocessed iron ore lumps, which the excavators argue to have been discovered in the vicinity¹³⁶⁹, but such a building provided with heating installation has no analogies among constructions assigned to workshops. All the above arguments seem to

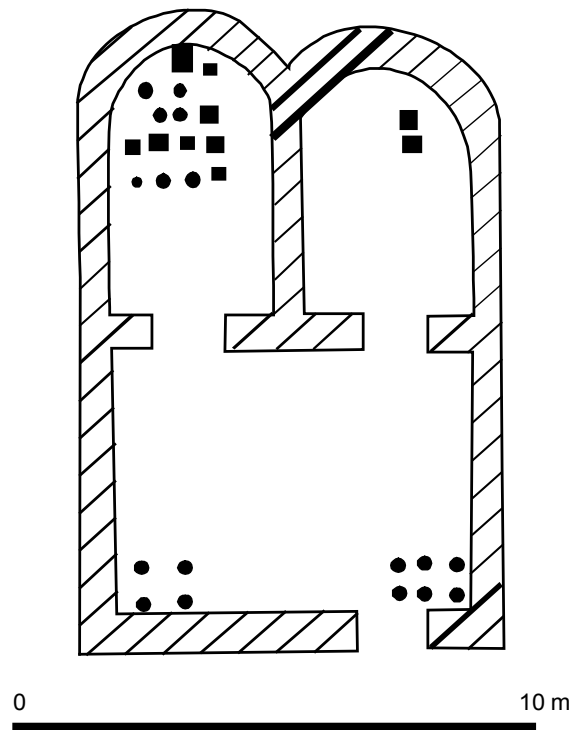


Fig. 36

further contribute to the uncertainty surrounding this structure. In addition to regular buildings in a Roman fort, the only structure that appears connected to a fort interior seems to be so-called *schola collegiorum*. Unfortunately, insofar very few things are known about this type of construction, for the lack of an inscription related to a building certifying made assignments. Thus, forts where such structures were discovered are few and come from only Germania and Britannia. This construction type plan is due to its functionality, being relatively small-sized, with apsed rooms usually located near the headquarters building. Therefore, this may be precisely the role of the building in the central part of the fort at Jidova, observing all three conditions. There is no archaeological confirmation of this building chronology, however analogies within the Empire make us assign it to changes occurred within the army by

the end of the 2nd or early 3rd centuries AD¹³⁷⁰, although an early dating is excluded since possible *scholae* exist for example in the early fort at Eining, dated no late than Hadrian¹³⁷¹.

Another large building, partially excavated, was found in the central part of the fortification, also having rooms provided with heating installations¹³⁷². The commander's quarters could obviously be located in this area. The remaining space between the headquarters building and the east enclosure wall is c. 30.00 m, therefore ideal for the construction of a *praetorium*, who would be, in the case of the fort at Jidova, similarly sized to the headquarters building.

However, the mentioned structure recently represented in the plan of the fort at Jidova is only 38.65 × 16.80 m (Fig. 37)¹³⁷³. It appears like a building with an open interior space surrounded by a stone wall, delimited on one of the sides by 2 rows of rooms, all heated. As the building was withdrawn from the frontline of the headquarters building, I assume a portico existed in the front.

The compartments by the corners end with one apse. Based on shape and findings from the inside, it was deemed bathsuite or *collegia* seat¹³⁷⁴. To consider it bathsuite, the

¹³⁶⁹ Popescu, Popescu 1970, 257.

¹³⁷⁰ Snape, Bidwell 2002, 268.

¹³⁷¹ See detailed in Marcu 2007b, 262.

¹³⁷² Vlădescu 1986, 91.

¹³⁷³ After Avram, Petolescu 1997, 189.

¹³⁷⁴ Numerous bricks, tile and clay pipe fragments were discovered, after Avram, Petolescu 1997, 189.

building should have had a few water basins, not being necessary or appropriate that all rooms be heated. In addition, the building layout does not suggest such function, although since they are less known within auxiliary forts, it is very difficult to establish a building type¹³⁷⁵.

Seats of military *collegia*, if they exist inside forts, are usually small-sized¹³⁷⁶.

In exchange, the position and characteristics of this building encourage me to believe it is in fact the commander's quarters, so far unidentified in Câmpulung. Several room rows on one of the structure sides are common to the commander's quarters, and their different dimensions represent another argument for assigning civil function to the building from *latus sinistrum*. Of course, normally it should have existed rooms at least on the eastern side of the building, but commander's quarters bordered by room rows were discovered in Dacia at Gilău or Cășeu.

It is difficult to determine the rooms' functions, but it is possible that the large central room in the back functioned as *triclinium*.

Surveys of *praetentura* and *retentura* identified traces of two barracks¹³⁷⁷. The dimensions of one of them are known, 36.00 × 9.00 m, in the other being identified the *graffiti* brick mentioned above¹³⁷⁸. The barrack length is much reduced compared to other barracks from Dacia or the Empire.

There are no clear archaeological data on the destruction of the fort at Jidova, where last coins date under Gordian III and Philip the Arab¹³⁷⁹.

In *retentura dextra* were identified two barracks oriented *per scamna*¹³⁸⁰. The one close to the north side of the fort was investigated, sized 36.00 × 9.00 m. I only know that it was lost to fire¹³⁸¹. In their area, belonging to one of them, a heating system was found, and the barracks or one of them, seem to be mixed¹³⁸².

Troops

The inscription scratched into the soft paste of a brick and the deposits of triangular arrowheads recording *cohors I Flavia Commagenorum sagittariorum* were found in 3rd century AD contexts¹³⁸³.

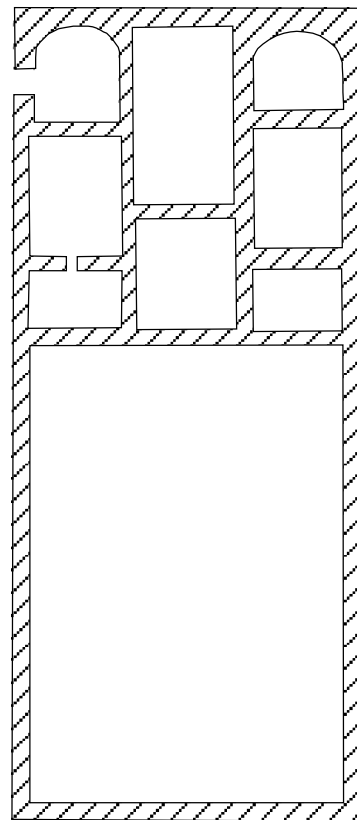


Fig. 37

¹³⁷⁵ Where discovered, bathsuites are smaller, provided with rooms for hot and cold bathing and are located in *praetentura* or *retentura*, where was extra space, see Johnson 1987, 213–4.

¹³⁷⁶ See Marcu 2007b, *passim*.

¹³⁷⁷ Popescu, Popescu 1970, 257; Avram, Petolescu 1997, 189.

¹³⁷⁸ A single occupation level was found inside the barrack, after Avram, Petolescu 1997, 189.

¹³⁷⁹ See with bibliography Popescu, Petolescu, Cioflan 1984.

¹³⁸⁰ See Avram, Petolescu 1997, 189.

¹³⁸¹ Appropriate archaeological level is c. 10–20 cm thick, here being discovered a coin issued under Philip the Arab, hence destruction could have occurred during the Carpien war, after Avram, Petolescu 1997, 189.

¹³⁸² Information C. C. Petolescu, whom we thank this way.

¹³⁸³ Petolescu 1995, 249.

Tile stamps of this troop were also identified in the fort at Drajna de Sus, along with those of legions *I Italica*, *V Macedonia* and *XI Claudia* and in the forts at Târgșor and Voinești, together with stamps of *leg. XI Claudia*¹³⁸⁴. They were dated during the conquest or generally under Trajan, when the unit was part of Moesia Inferior army, as indicated by the diploma of AD 105 (CIL XVI 150). Also, in Moesia Inferior is attested in the recently published diplomas from AD 92 (Petolescu, Popescu 2004) and 111 (RMD 222).

Later, the troop is recorded by the Dacian diplomas of AD 140 (IDR 13 = RMD I 39) and 146 (RMD 269). At Romula, Slăveni and Acidava, three localities on Olt River, tile stamps evidencing this cohort appear to be identical. Having no inscription¹³⁸⁵ the unit definitely supplied tile material to forts on Olt, the river being an ideal way of transport¹³⁸⁶.

In the large fortification form Câmpulung-Jidova, in a barrack located near the granary, a brick scratched before firing was found, having engraved the name of a *coh. I Flavia Commagenorum* soldier¹³⁸⁷. The troop presence at Câmpulung-Jidova is possible, but not certain¹³⁸⁸, this *graffito* certifying only the presence of a soldier in brickyards wherefrom the material could be transported to the fort here.

46. CINCȘOR

In the fort of Cincșor archaeological excavations were carried out in 1974–1975 by I. Pop, and from 1979 intermittently until 1992, by teams led by archaeologists I. Pop, L. Petculescu and D. Isac. Single archaeological surveys inside the fort, performed in the southwest corner, are one from 1988 and two from 1991¹³⁸⁹. Two phases of the enclosure were identified, one of earth-and-timber and one of stone, on the west side being observed four ditches as well¹³⁹⁰. The fort stratigraphy preserves only in the southwest corner in the highest point. The excavation of 1991 found a ditch belonging to the stone phase and the beginning of an earlier one, pertaining to the timber phase¹³⁹¹. The single preserved tower is poorly preserved, being built of quarry stones and cobbles, with walls of c. 0.70–1.10 m wide¹³⁹². Between *via sagularis* and the corner tower were identified traces of metallurgical activities, such as a brick and clay kiln, in whose area were identified iron slag and vitrified paste¹³⁹³. One of the conclusions of recent excavation refers to nearly 70% fort destruction¹³⁹⁴.

Inside the fort were identified parts of a building characterized by two main phases of construction, one of wood and probably one of only wooden superstructure, but built on a sill made of cobbles bound with ground¹³⁹⁵. In the second phase, its limits were discovered in the

¹³⁸⁴ Petolescu 1995a, 249.

¹³⁸⁵ The only tombstone mentioning a veteran of the unit comes from Tomis, AE 1938, 6.

¹³⁸⁶ See Marcu 2004.

¹³⁸⁷ Petolescu 1995a, 220; Petolescu 2002, 96–7. . For other tiles or bricks with *graffiti* from Câmpulung – Jidova, see IDR II, 610–634.

¹³⁸⁸ Some deposits of triangular section arrowheads found at Câmpulung-Jidova in 3rd century contexts confirm probably the presence here of *coh. I Flavia Commagenorum sagittariorum*, see Petolescu 1995a, 249.

¹³⁸⁹ See Isac, Isac 1994, 104, 106, Fig. 2.

¹³⁹⁰ The information comes from L. Petculescu, who mentioned partial results of the 1988 campaign, see in Gudea 1992, 83, no. 44.

¹³⁹¹ Isac, Isac 1994, 107.

¹³⁹² The tower was excavated in 1988, but the results of archaeological excavations are unknown, being only re-dug in 1991 Isac, Isac 1994, 108.

¹³⁹³ Isac, Isac 1994, 108.

¹³⁹⁴ Isac, Isac 1994, 110.

¹³⁹⁵ The excavators argue that this construction could belong to *retentura dextra*, Isac, Isac 1994, 110.

form of a foundation of slabs of yellow sandstone and cobbles, bound only with soil, T-shaped, covering the eastern end of *via sagularis*¹³⁹⁶. There were identified relatively clear traces of four timber walls trenches, precisely under the mentioned stone foundations, 0.40 m wide, specifying in plan possible sizes of one of the partitions, c. 3.75 × 2.50, thus concluding they corresponded to *contubernia*¹³⁹⁷.

Troop

The military unit which was the garrison of the fort at Cincșor was identified, following the discovery of tile stamps¹³⁹⁸ and one inscription¹³⁹⁹, as *coh. II Flavia Bessorum*. The troop is mentioned in the army of Moesia Inferior by the diplomas of AD 92 (Petolescu, Popescu 2004), 97 (ZPE 117, 233–8) and 105 (CIL XVI 50), as participating in the Dacian wars. The tombstone from Gigen (Oescus) of a soldier from *c(o)h(ors) II F(lavia) B(essorum)*¹⁴⁰⁰, does not record that the troop was garrisoned in the fortress here, but rather that the soldier was temporarily transferred or that his origin was in this region.

Later, in AD 122 (Pferdehirt no. 20), 129 (CIL XVI 75 = IDR I 10), 140 (RMD I 39 = IDR 13) and 146 (RMD 269) the unit is registered by Dacia Inferior's diplomas. Initially, the group was likely camped somewhere on Olt's lower course, confirmed by the stamps of type *coh(ors) II F(lavia) Bes(sorum)* (IDR II 561–2) from Stolniceni¹⁴⁰¹. In neighbouring civil settlement from Bârsești, a single brick stamped with the abbreviation *coh(ors) II F(lavia) B[e(ssorum)]* (IDR II 571) was discovered, probably the result of its reuse or use into the erection of an official building. On the other hand, the stamped material from Stolniceni could have been easily transported from Cincșor, located on the upper course of Olt, where the troop is attested on a number of tiles and an inscription. The tombstone is dedicated by L. Carvinus Rusticinus, *praef(ectus) coh(ortis) II Fl(aviae) Bess(orum)*, to his brother Carvilius Secundinus¹⁴⁰².

Nevertheless, further confirmation that the troop activated in lower Olt area, is given by the bricks stamped *coh II F [(lavia)] B(essorum)* (IDR II 607) from Rucăr, a small fortification of 60 × 47 m, 100 km away from Stolniceni. Or, Stolniceni stamps date from the Dacian wars, while those from Rucăr under Trajan¹⁴⁰³.

In the Transylvanian region of upper Olt, tile stamps of this troop were identified at Olteni. At first glance, the abbreviation of the name C IIII BE (IDR III / 4, 318) does not seem to indicate the unit under discussion, but a troop with IIII number and the name whose first letter is B is not named by Dacian diplomas¹⁴⁰⁴.

Among other troop commanders counts also the prefect of *coh. II Flavia Numidarum*, in the neighbouring fort at Feldioara, *T. Ant. Cl. Alfenus Arignotus*, who cumulates under Marcus Aurelius as *praepositus* also the command of *coh. II Flavia Bessorum*¹⁴⁰⁵.

¹³⁹⁶ Isac, Isac 1994, 110.

¹³⁹⁷ Isac, Isac 1994, 110.

¹³⁹⁸ Szilágyi 1946, 55, Pl. XVII/254.

¹³⁹⁹ Russu 1967, 87.

¹⁴⁰⁰ AE 1957, 299.

¹⁴⁰¹ Unfortunately, we have no information on the accurate sizes of the fort, see Gudea 1997d, 88–9.

¹⁴⁰² AE 1971, 379 = IDR III/4, 179; PME C 85.

¹⁴⁰³ See Petolescu 1995a, 240.

¹⁴⁰⁴ Gudea 2001.

¹⁴⁰⁵ CIG III, 3497 = IGR IV, 1213 = ILS 8853. Pop 1983, 45; Petolescu 1987, 157–72.

47. COMALĂU

The archaeological excavations in Comalău area were initiated in 1909–1910 by W. Csuták and Fr. László and continued in 1942 by Z. Székely (pl. 29)¹⁴⁰⁶. Several trenches were made, most of them targeting the fort's defence system, including the gates. Excavations from the inside did not yield any consistent results.

The fort shape is rather curious, being pentagonal and sized 70 × 70 × 40 × 50 × 20 and provided with corner and interval rectangular towers, totally projecting outwards the enclosure wall¹⁴⁰⁷. Precisely because of this planmetry the fortification was considered by some scholars of medieval age. However, the archaeological material consisting of pottery, bronze and iron pieces or coins is evidently Roman. K. Horedt, quoting two plates made by Z. Székely, argues that black pottery with polished ornaments and a handle-free conical cup are specific to the 4th century¹⁴⁰⁸, thus proving occupation in the post-Roman period as well. Or, the cup mentioned by K. Horedt is of the type decorated with notches by the base, vessels that can be dated in the 3rd century as well¹⁴⁰⁹. The coins chronology begins with the reign of Vespasian and ends with Philip the Arab¹⁴¹⁰, hence it is similar to any fort from Dacia. Furthermore, a COHH type tile stamp was discovered, probably abbreviation of *coh(ors) H(ispanorum)*, the same troop that stationed at Brețcu¹⁴¹¹.

The fort dimensions of only 0.2 ha clearly plead for its function of a fortification overseeing the roads junction in the area, especially since at little over 10 km south the Boroșneul Mare fort was located.

In my view, the fort at Comalău was built indeed to monitor trade routes in the area, but also to complement the fort at Boroșneul Mare, rather small. It is therefore probable that vexillations of the troops stationed at Boroșneul Mare fort could have been garrisons of the fort at Comalău. So, it might have quartered parts of *ala Flavia Gallorum*, and subsequently of *coh. I Bracaraugustanorum* or, more likely, of *numerus Illyricorum*. It is not excluded that troop of Hispanics sent here, at certain moment, vexillations or only building material.

48. COPĂCENI

Archaeological excavations in the fort at Copăceni on Olt River were performed by C. M. Vladescu and Gh. Poenaru-Bordea in 1973–1975 (pl. 32). Fort sizes are approximated at 64.00 × 64.00 m, being mostly destroyed. The western half of the fortlet was flooded and destroyed by Olt. Thus, the dimensions of only one fort side are known, c. 64 m. The other sides, partially preserved, can be distinguished on a length of c. 17.00 m.

The eastern gate, the only one preserved, is by mid east side of the enclosure, so it might have been *porta praetoria* or *decumana*, having 3 m span, the towers not being outwards projecting. The enclosure wall has once again interior buttresses. From the fort interior, the plan renders two perpendicular incomplete walls, of c. 0.80 m thickness, located near to the single preserved gate. Evidence on the fort's existence also during the 3rd century AD is represented by the coins found inside, dated starting with Antoninus Pius to Gordian

¹⁴⁰⁶ For history of research see Székely 1943, 4–9.

¹⁴⁰⁷ Székely 1943, 6. K. Horedt considered, probably correctly, that the interval towers, one on each long side, are the gate towers, which must have had each one counterpart, Horedt 1974, Fig. 2.

¹⁴⁰⁸ Horedt 1974, 556.

¹⁴⁰⁹ See Marcu, Țentea 2000, 74–7.

¹⁴¹⁰ Székely 1943, 28.

¹⁴¹¹ Székely 1943, 27.

and a milliary dated under Maximinus Thrax, found in one of the towers of the single gate preserved¹⁴¹².

Troop

This fortification was certainly built under Hadrian, as proven by an inscription dated in AD 138, according to which *numerus Burgariorum et Veredariorum*¹⁴¹³ rebuilds the fort after two years from construction (CIL III 13796 = ILS 9180). The *castra numeri* formula undoubtedly indicates the garrison troop. Another argument in favour of a garrison formed of *numerus* is represented by the so-called 'dreiflügelige' type arrowheads. *Numerus* is not an ethnic unit¹⁴¹⁴.

From the fort at Copăceni comes as well a brick with inscription (*graffito* in raw paste) mentioning an *Aur(elius) Ponticu[s]*, soldier of the same *numerus* (CIL III 14216, 40 = IDR II 590).

Given that the troop stationed here, *burgarii* 'guardians of the burgh' and *veredarii* (*veredus* = horse mail) and that the name of *Praetorium* may not have been coincidental it is likely that at Copăceni was located the headquarters of the procurator-governor of Dacia Inferior¹⁴¹⁵, although it could be quite hard to believe given the land geography. An inscription dotted PAC BF (CIL III 13,797 = IDR II 591) was also found here.

49. The fort of **ENOȘEȘTI (Acidava)**, situated on a hilltop was almost entirely destroyed following the construction of Slatina-Piatra Olt-Craiova railway, preserving only part the southern side¹⁴¹⁶. Single archaeological material, which could be recovered, consists of a few bricks bearing the stamp of cohort *I Flavia Commagenorum* (CIL II 807414d = IDR II, 551) and stamp CR (IDR II, 552)¹⁴¹⁷, completed by D. Tudor as *c(ohors) R(aetorum) (?)*¹⁴¹⁸. Fortification is approximately sized 60 × 60¹⁴¹⁹, although such approximation is uncertain, the only known elements being part of the enclosure wall, made of bricks bound with clay and having an impressive breadth of 1.80–1.90¹⁴²⁰. I. Bogdan Cătănicu, subsequent excavations of the 70's south the preserved side of the fort argues that prior the fort of brick walls, there was another of earth-and-timber, larger, dated during the Dacian wars to mid 2nd century AD¹⁴²¹.

Tile stamps of *coh. I Flavia Commagenorum* were also discovered at Romula, Slăveni, and a *graffito* mentioning the troop at Câmpulung-Jidova.

50. FÂLFANI

The fort on *limes Translutanus* is characterized as a fortification suitable for a *numerus* based on its small sizes of c. 63.00 × 93.00 m¹⁴²². The rampart (*murus cespiticius*) width is

¹⁴¹² Tudor 1982, 76.

¹⁴¹³ For this troop type see the analogy with *numerus barcariorum* from Britannia, which does not change role, Shotter 1973, 209.

¹⁴¹⁴ See the similar case of *numerus barcariorum* from Britannia, Southern 1989, 118.

¹⁴¹⁵ See Petolescu 2002, 129.

¹⁴¹⁶ From D. Tudor's (Tudor 1978, 258, Fig. 79/3) and N. Gudea (Gudea 1997, no. 71) plans it results that including part of the southwestern corner of the fort is still preserved, however C. M. Vlădescu confirmed that only the southern side still exists, Vlădescu 1983, 89.

¹⁴¹⁷ Bricks with the CR symbol were found as well at Romula, IDR II, 388.

¹⁴¹⁸ After Vlădescu, Poenaru-Bordea 1978, 140.

¹⁴¹⁹ Vlădescu 1983, 89.

¹⁴²⁰ Vlădescu, Poenaru-Bordea 1978, 138.

¹⁴²¹ Bogdan-Cătănicu 1977, 336.

¹⁴²² See the plan in Tudor 1978, 279. no. 19 and a recent one, in Avram, Petolescu 1997, Fig. 5.

believed to be c. 7.00–8.00 m and *via sagularis* of 2.00–3.50 m. Along the northern side is described a defence ditch sized 8.00–9.00 m and 3.00–4.00 m deep¹⁴²³.

51. FELDIOARA

The fort at Feldioara is located less than 10 km west the fort at Cincșor, south the Arpaș pass. Archaeological excavations were conducted only in 1973–1979¹⁴²⁴, noticing that big part of the fort was destroyed by floods (pl. 31).

Two main construction phases of the enclosure were identified, the first of earth-and-timber and the second of stone. Approximate dimensions of the second phase are c. 114 × 137 (?) m¹⁴²⁵. However, only the short northeast side can be measured with some precision, the identified gate being placed in its middle, while the sizes of the second and last side preserved in the north-east of the fort are approximate, *porta principalis* (probably *sinistra*) not being by its mid. The gate towers are rectangular, slightly projecting outwards, therefore we do not understand why the fort construction was dated by mid 2nd century AD, based also on this argument¹⁴²⁶. Such dating was ‘confirmed’ by the archaeological material discovered in the interval tower¹⁴²⁷.

In *praetentura sinistra* two buildings considered barracks were discovered, whose dimensions are 6.30 × 6.70 × 3.00 and 3.00¹⁴²⁸ (sic!). In fact, should we measure the sizes of buildings with weak stone walls¹⁴²⁹, upon the plan provided by N. Gudea¹⁴³⁰, it results that they were just over 40.00 m long and a c. 20.00 m width. Therefore, they very unlikely represented barracks. We could suppose that the two barracks were double, but still, the dimensions are quite large for such buildings.

Troop

The stamps of various types, C N, COH MVMID or COH NVM ANT¹⁴³¹ indicate that *coh. II Flavia Numidarum* was the troop of garrison of the fort at Feldioara. A *signaculum* with the mark CN (AE 1991, 1333) is also suggestive to this end¹⁴³².

The troop name indicates its establishment under the Flavians, although the troop's first attestation comes from AD 122 (Pferdehirt no. 20) and then 129/30 (ZPE 117, 244), 140 (IDR I 13, RMD 39) and 146 (RMD 269).

An inscription from Șipka dated under Marcus Aurelius records a horseman Marcus Traidaci of *coh. II Numidarum*, who dedicated an inscription to another horseman of *coh. II Bracaraugustanorum*¹⁴³³. Therefore, one may note that the troop was *equitata*. Another inscription from Thyatira dated in c. 200 mentions T. Ant(onium) Cl. Alfenus Arignotus¹⁴³⁴ troop prefect (AE 1065, 347). An *ignotus, vet.* (AE 1048, 86) is registered at Aquincum.

¹⁴²³ Avram, Petolescu 1997, 189. To Vlădescu 1986, 88 of 18.00 m and 1.80 m deep.

¹⁴²⁴ Gudea, Pop 1977; Gudea, Pop 1980.

¹⁴²⁵ Gudea 1997, 68. For other measurements, see Gudea, Pop 1977, 334.

¹⁴²⁶ Gudea, Pop 1977, 337; Gudea 1997, 69.

¹⁴²⁷ Gudea, Pop 1977, 233–8.

¹⁴²⁸ Gudea 1997d, 69.

¹⁴²⁹ Gudea, Pop 1977, 336.

¹⁴³⁰ Gudea 1997d, No. 45.

¹⁴³¹ Gudea, Pop 1977, 337; IDR III/4, 175–177.

¹⁴³² Isac 1991, 46.

¹⁴³³ IGB III/2, 1741 bis = AE 1965, 347 = IDRE II, 350.

¹⁴³⁴ CIG III, 3497 = IGR IV, 1213 = ILS 8853. Pop 1975, 291; Petolescu 1987, 157–72.

52. GHIOACA

No archaeological excavations were carried out, hence the 102.00 × 75.00 m (0.76 ha) sized were supposed¹⁴³⁵. Alike other forts from *limes Transalutanus*, although not archaeologically investigated, the sizes of the defence rampart and the existence of a single defence ditch are only supposed based on field observations.

53. GRESIA

Similar situation with the fort at Ghioaca, except that fort sizes are considered to be of only 50.00 × 60.00 m¹⁴³⁶. Two fragmentary stamps were signalled, the abbreviation preserving only letter B, however they are similar to CIB (IDR II, 527) stamp types found at Slăveni¹⁴³⁷.

54. HOGHIZ

In the fort of Hoghiz first archaeological excavations were conducted by K. Horedt in 1949¹⁴³⁸ and resumed in 1965–1967, respectively 1975–1979 by D. Protase¹⁴³⁹. The fort interior is almost entirely unknown, except for certain walls in the central part.

The enclosure of Hoghiz, one of the largest from Dacia and the largest in the area, is 220 × 165 m, covering 3.63 ha surface and has two construction phases, an early one of earth-and-timber and another of stone. The stone enclosure consisted of two parallel walls linked at intervals of c. 2.75 m by transversal walls, with an earth filling in-between¹⁴⁴⁰. The outer wall is 1.15 m thick, the inner one is of 1.05 m, while those transversal are of 0.90 m. Their preserved height exceeds 2.50 m. The corner towers role is overtaken by these partitions of the enclosure. It was argued that all walls composing the enclosure were built from the same level according to the same technique¹⁴⁴¹, however the section rendered indicates a single wall, the outer one.

The only consistent information on the fort interior comes from K. Horedt, who researched an area in the middle assuming it was inside the *principia*. The scholar maintained the discovery of a basin remains, reminiscent of a bathsuite¹⁴⁴². Respective area seems indeed suitable for a headquarters building, but is not impossible that such construction was actually in *praetentura* or *retentura* of the fort.

It is interesting that between the enclosure and *via sagularis* a 2.50–3.00 m space was left.

The coins discovered inside the fort and in the area of the fortification at Hoghiz are issued under Trajan, Hadrian¹⁴⁴³, Antoninus Pius, Severus Alexander, Iulia Mamaea, Gordian III¹⁴⁴⁴, Probus, Diocletian, Constantius Chlorus, Maximin Daza, Constantine, Constantine II, Constantius II, Julian the Apostate, Jovian, Valentinian, Gratian, Valentinian II, Theodosius and Arcadius¹⁴⁴⁵.

¹⁴³⁵ See Tocilescu 1900, 126, Fig. 69; Tudor 1978, 277, Fig. 76/10.

¹⁴³⁶ Tocilescu 1900, 125, Fig. 68; Tudor 1978, 277, Fig. 76/7. 92.00 × 86.00 m to Avram, Petolescu 1997, 188.

¹⁴³⁷ After Avram, Petolescu 1997, 188.

¹⁴³⁸ Horedt 1953, 785–98.

¹⁴³⁹ Partial information in Protase 1977.

¹⁴⁴⁰ Protase 1977, 197–9.

¹⁴⁴¹ Protase 1977, 199.

¹⁴⁴² Horedt 1950, 124.

¹⁴⁴³ Popa 1990.

¹⁴⁴⁴ Horedt 1953, 796.

¹⁴⁴⁵ On late 'post-Roman' coins and finds, K. Horedt mentioned their findspot in the surrounding of localities Rupea and Hoghiz, specifying clearly that inside the fort no post-Roman evidence could be found, Horedt 1950, 124.

G. Bakó counts among the researchers who support the existence of a smaller fortification on the opposite bank of Olt River, together with a related civil settlement, without providing much information, except for the sizes of 100 × 60 feet¹⁴⁴⁶.

Troops

In the fort of Hoghiz are attested by inscriptions or tile stamps *legio XIII Gemina, ala Asturum, coh. III Gallorum* and *numerus Illyricorum*. From the fort of Hoghiz probably comes a slab (CIL III 953 = IDR III / 4, 230) in the collection of Bruckenthal Museum of Sibiu¹⁴⁴⁷. *Ala Asturum* is recorded in the diploma of AD 99 (CIL XVI 45) in Moesia Inferior, being presumed it partook the Dacian wars since *Prifernius Paetus* (CIL IX, 753) was decorated by Trajan. Next references are made in Dacia Inferior in AD 130 (Weiß 1997, 243–6, no. 8), 140 (RMD 39) and 146 (RMD 269). Single records of the troop in Dacia consist of several tile stamps discovered at Hoghiz (CIL III, 1633, 11, CIL III 8074, 1b) where the troop's name is abbreviated as AL AS, respectively ALA I A. The troop is different from its homonym from Britannia, which is usually recorded within diplomas as *ala I Hispanorum Asturum*¹⁴⁴⁸. Troop *praefecti*, staff or veterans are mentioned in various locations of the Empire, at Messina (CIL X 6976), Rimini (CIL IX 393), Ankara (AE 1981 786), Chalons-sur-Saône (CIL XIII 2613), Saint Géréon (AE 1990, 732), Nova (ILB ILN 305 = 56), Serdica (iDream II 353) and other sites from Dacia, at Germisara (CIL III 1393) and Constanța (AE 1988, 998).

C. Nonius Caepianus (PME N 12), honoured in the inscription from Rimini (CIL IX 393), leads the troop with *praefectus* title. Simultaneously or subsequently he becomes *praepos[itus] numeri equitum elector[um] ex Illyrico*, identified with *numerus Illyricorum* from Dacia Inferior. Therefore, it was supposed that the two troops garrison must have been adjacent or joined. Furthermore, in the fort of Hoghiz a tile stamp with the letters NIL in ligature (IDR III / 4, 243) was discovered, obviously an abbreviation of *the n(umerus) Il(lyricorum)*¹⁴⁴⁹.

The diploma of March 22, 129 (CIL XVI 75 = IDR I 10) is given to an *ex gregale Eupator Eumeni f.* (Sebastopolis—Pontus) from *vexillatio equitum Illyricorum*. The same unit appears with unchanged name in AD 130 (Weiß 1997, 244). As *numerus equitum Illyricorum* it will be recorded in the diploma of AD 140 (RMD 39), whose holder would be again an *ex gregale* of the troop, *Bithus Solae f.* Under the same form the *numerus* is mentioned in the diploma of 146 (RMD 269), granted to an *ex sesquiplicar(io), Coca Tyru F. Sardic(a)*.

Coh. III Gallorum is mentioned in AD 74 (CIL XVI 20) in Germania, then in Moesia in AD 75 (RMD 2), 78 (CIL XVI 22; RMD 208), 82 (CIL XVI 28) and Moesia Inferior in AD 99 (CIL XVI 45), 105 (CIL XVI 50) and 114 (CIL XVI 58). In the Dacia Inferior the troop is recorded in the diplomas of AD 122 (Pferdehirt no. 20), 129 (CIL XVI 75 = IDR I 10), 129–30 (ZPE 117, 244), 140 (IDR I RMD 13 = 39) and 146 (RMD 269). C. C. Petolescu includes it among the cohorts that are not *equitatae*¹⁴⁵⁰, although if at Valkenburg, where the troop seems to have been stationed during the 1st century AD, it is *equitata*, the full strength *coh.*

¹⁴⁴⁶ Bakó 1975, 141; Bakó 1977, 196. Because the long distance between the Hoghiz and Cincșor forts, K. Horedt supposed somewhere by midway, near the locality of Hălmeag (Brașov) another fort, Horedt 1977, 333.

¹⁴⁴⁷ See Piso 2000a, *passim*.

¹⁴⁴⁸ See Spaul 1994, 37–9.

¹⁴⁴⁹ The first to assign this stamp to the *numerus* is G. Bakó, Bakó 1975, 142–3.

¹⁴⁵⁰ Petolescu 2002, 41.

III Gallorum being present here, respectively 6 *centuriae* and 4 *turmae* or only 4 *centuriae* and 2 *turmae*¹⁴⁵¹.

The abbreviation of the cohort name on a tile stamp from Ionești Govorii¹⁴⁵² and a stamp from Boroșneul Mare appears identical, as *COH(ors) III G[al(lorum)]* (IDR II 555; IDR III / 4, 330). None of the mentioned tile stamps is known from photos and they seem to be lost, however it is strange that both stamps from Ionești Govorii and Boroșneul Mare are broken precisely in the same place. Single sizes and drawing preserved belong to the stamp discovered in the enclosure wall of the fort at Boroșneul Mare, but only letters COH III C can be distinguished¹⁴⁵³. The stamp of Ionești Govorii is known only from Gr. Tocilescu's transcript, who maintains that a brick with the engraved letters COH III G was found¹⁴⁵⁴. Fragmentary stamps of the form COH III [] also attributed to *COH. III Gallorum* were identified to Enoșești as well, one also mentioned by Gr. Tocilescu and the other discovered during rescue excavations of the 70's¹⁴⁵⁵. As yet, given the fact that in Dacia Inferior no other troop numbered III was known, it can be assumed that troop *III Gallorum* initially stationed by mid course of Olt River. This seems to be confirmed by the joint command of *Sex. Iulius Possessor* who fulfils as *militia prima* the prefect office of *coh. III Gallor(um)*, after which he is *praepositus numeri Syrorum sagittariorum item alae primae Hispanorum* and *curator civitatis Romulensium Malvensium* (CIL II 1180 = ILS 1403). As a result he has joint command of some troops garrisoned at Romula, respectively Slăveni, still on mid and lower course of Olt River¹⁴⁵⁶.

By mid 2nd century AD, the diplomas of 154 (RMD 48), 153 (Weiß 1997, 254), 156 / 7 (CIL XVI 181) and 157 / 8 (CIL XVI 182) from Mauretania Tingitana record also a *coh. III Gall(orum)* the last three naming it *felix*, thus proving that the entire troop was here. When discussing *coh. III Gallorum* from Dacia Inferior, C. C. Petolescu does not reference the mentioned diplomas, as makes explicit distinction between homonyms troops from Mauretania Tingitana and Dacia Inferior¹⁴⁵⁷. On the other hand, J. Spaul includes all records of cohort *III Gallorum* in the discussion about a single troop, considering that the unit of Galls arrives from Hispania to Germania and then in Moesia Inferior, Dacia Inferior respectively, being transferred by mid 2nd century AD in Mauretania Tingitana.¹⁴⁵⁸ However, the latter author, although uses as source the inscription dedicated by the troop to Marcus Aurelius and Commodus (AE 1944, 42 = IDR III/4, 231) at Hoghiz, avoids giving a solution to its chronology. He had claimed that the troop left Dacia Inferior, being transferred in Mauretania, while Dacia was abandoned, therefore by mid 2nd century, when the troop is attested in northern Africa (*sic!*).¹⁴⁵⁹

Thus, there are two possibilities to identify the troops bearing the appellation *III Gallorum*. The most convenient solution would be to admit that there are indeed two different troops¹⁴⁶⁰,

¹⁴⁵¹ On one of the tablets from Valkenburg the troop name abbreviation appears as *C(o)HOR(s) III GALLOR(um) E(quitata)* (AE 1975, 633).

¹⁴⁵² No excavations were carried out in the fort of Ionești-Govori, in fact not even its location is sure.

¹⁴⁵³ Székely 1975, Fig. 3; IDR II, 330.

¹⁴⁵⁴ *Apud.* Bogdan-Cătănicu 1997, 66, n. 44.

¹⁴⁵⁵ Bogdan-Cătănicu 1997, 66, n. 42.

¹⁴⁵⁶ For comments see also Petolescu 1987, 164–71; Petolescu 2002, 106–7.

¹⁴⁵⁷ Petolescu 2002, 106–7. The same opinion in Țentea, Matei-Popescu 2004, 283.

¹⁴⁵⁸ Spaul 2000, 161–2.

¹⁴⁵⁹ Spaul 2000, 162.

¹⁴⁶⁰ It may be significant that there are no fewer than three troops *coh. IIII Gallorum* or two troops *coh. V Gallorum*, see Spaul 2000, 163–7, 168–70.

one stationed in Dacia Inferior, the other in Mauretania Tingitana. Another possibility would be that only one *coh. III Gallorum* moved in the 2nd century AD from Moesia Inferior to Dacia Inferior, then to Mauretania Tingitana, only to return in the second half of the 2nd century in Dacia Inferior. The key to solve this problem could be *Sex. Iulius Possessor* career¹⁴⁶¹. Before exercising the joint command of *numerus Syrorum* and *ala prima Hispanorum*, had led the cohort of Galls as prefect. The logical assumption is that the three troops mentioned in his *cursus honorum* were garrisoned one close to the other, while the troops command was exercised concurrently, the said character beginning his military career in Dacia Inferior after AD 168¹⁴⁶².

Another alternative, hard to prove however, is that *Sex. Iulius Possessor* had begun his prefect career¹⁴⁶³ near his place of origin, Mactar (*Africa Proconsularis*)¹⁴⁶⁴, so not far from Mauretania Tingitana, from where he moved, perhaps at the command of *coh. III Gallorum* in Dacia Inferior where would subsequently lead *numerus Syrorum sagittariorum* and *ala I Hispanorum*. But, this should have occurred earlier, at the end of Antoninus Pius's reign, or in the 160's, since the last mention of *coh. III Gallorum* in Mauretania Tingitana was made in the diploma of AD 157 / 8 (CIL XVI 182)¹⁴⁶⁵. Troops transfers from the Danube area to Mauretania were not unusual, since *numerus Syrorum* was displaced from Dacia to Mauretania Caesariensis, and probably also detachments or the entire troop *ala I Claudia [Gallorum] Kapitoniana*¹⁴⁶⁶, and under the command of *Sex. Iulius Iulianus* 1000 Thracians were transferred to Mauretania Tingitana¹⁴⁶⁷. On the other hand, troops from Mauretania or Africa were transferred to Dacia Superior or Moesia Superior under Hadrian or Antoninus Pius¹⁴⁶⁸. No return route of the troops was novel. Right by mid 2nd century AD troops from Pannonia Superior and Inferior are transferred to Mauretania Caesariensis for Antoninus Pius's war against the Moors, and subsequently returned to the provinces from where they left, as very clearly proved by the Pannonian diploma of AD 150 (CIL XVI 99) specifying that troops were '...in expedition(e) Mauretan(iae) Caesariens(is)'¹⁴⁶⁹.

The honorary altar of Hoghiz, dedicated to Marcus Aurelius and Commodus¹⁴⁷⁰, proves that at some point the troop *COH(ors) III GALLOR(um)* was the garrison of the fort

¹⁴⁶¹ The career of *Sex. Iulius Possessor* is known from two inscriptions, one found in Seville = Hispalis (Hispania) (CIL II 1180 = ILS 1043 = AE 965 237), and the second from Mactar (Africa Proconsularis) (Picard 1968). For his career see Tudor 1944; Daicovicu 1944; Nesselhauf 1964; Petolescu 1983; Piso 1993, 85, n. 18.

¹⁴⁶² The joint command of *Sex. Iulius Possessor* in Dacia Inferior of *coh. III Gallorum*, *numerus Syrorum* and *ala Hispanorum* was also supported by H.T. Rowel, RE XVII/2 (1937), 2553. See also Tudor 1978, 192 or Petolescu 1983, 47–8, 52, 55.

¹⁴⁶³ C. C. Petolescu dates the beginning of *Sex. Iulius Possessor* career beginning with 168, Petolescu 1983, 55.

¹⁴⁶⁴ J. Spaul claims that *Sex. Iulius Possessor* could have begun his career with the simultaneous leadership of three troops: *coh. III Gallorum*, *numerus Syrorum* and *ala Hispanorum* at the beginning of the 140's, either in Mauretania Tingitana or in Dacia from where he led them to Mauretania, Spaul 2000, 162, n. 5.

¹⁴⁶⁵ In fact, H.-G. Pflaum claims that *Sex. Iulius Possessor* started as a prefect under Antoninus Pius, Pflaum 1960, 504–7.

¹⁴⁶⁶ CIL VIII 8828 (= 20633; ILS 6889). A Decurion of this troop is mentioned, see Speidel 1974, 378.

¹⁴⁶⁷ Speidel 1977a.

¹⁴⁶⁸ See diplomas of AD 158 (CIL XVI 108 = IDR I 16) recording *vex(illarii) Afric(ae) et Mau[r(etaniae)] Caes(ariensis) qui sunt cum Maur(is) gentilib(us)* or *Mauri eq[ui]t(es) et peditibes?* Remembered in 138/161 (CIL XVI 114 = AE 1914, 0119 = IDR I 29) in Moesia Superior.

¹⁴⁶⁹ M. P. Speidel's conclusion is that only vexillations of the troops from the two Pannonias were temporarily detached to Mauretania Caesariensis, Speidel 1977. See also Lőrincz 2001, 16, n. 34.

¹⁴⁷⁰ AE 1944, 42 = IDR III/4, 231.

here. Another altar fragment recording the name of a prefect of this cohort was found near the fort at Hoghiz¹⁴⁷¹. However, no tile stamp mentioning this unit was found within the fort. The stone enclosure fortification has considerable sizes of 165 × 220 (?) (3.63 ha). So it must have accommodated a larger number of soldiers, and if *coh. III Gallorum*, a *coh. quingenaria equitata* ever stationed there, it is obvious that it was accompanied by effectives of other troops. Or, it is quite clear that in the fort at Hoghiz stationed *ala Asturum* attested by two types of tile stamps *AL(a) AS(turum)* (CIL III 1633, 11 = IDR III / 4, 241) and *A(la) I A(sturum)* (CIL III 8074, 1b = IDR III / 4, 242), but we do not know the chronology of this troop movements. Therefore, I suppose the joint occupation of this fort by the two troops, *coh. III Gallorum* replacing that *numerus Illyricorum* which will be dislocated to Boroşneul Mare. The stamp attesting *coh. III Gallorum* at Boroşneul Mare may have arrived here only as building material.

So, if indeed there is only a single troop, *coh. III Gallorum* route would be Hispania, Germania, Moesia—Moesia Inferior, Dacia Inferior, Mauretania Tingitana and again Dacia Inferior. Before being transferred to Mauretania the troop could have had the garrison on lower Olt, probably to Enoşşti. *Sex. Iulius Possessor* could have commanded *coh. III Gallorum* by the end of Antoninus Pius's reign or under Marcus Aurelius and Commodus. Under his lead, the troop could have moved again to Dacia Inferior, this time perhaps occupying the fort at Hoghiz where dedicates an inscription in honour of Marcus Aurelius and Commodus, perhaps even on the occasion and at the time of the transfer. It remains to establish what were the reasons of its original dislocation to Mauretania, and then again to Dacia Inferior. Given the very large number of military diplomas issued in Mauretania Tingitana in the 150's, I presume a series of conflicts initiated by the Moors occurred in AD 149¹⁴⁷². Later, under Marcus Aurelius is obvious that northern Danube area was in turmoil, as proven by its territorial and administrative reorganization¹⁴⁷³.

The troop was transferred in the fort at Hoghiz from the fort at Boroşneul Mare, where was discovered¹⁴⁷⁴ the tile stamp that seems to record this troop replacing the *numerus Illyricorum* that stationed together with *ala Asturum*. However, even if the fort is quite large, being of nearly 3.7 ha, is quite difficult to fit an *ala* together with a *quingenaria equitata* troop. It is therefore possible that one of the two troops was 'understrenght' or that effectives of one of the units were elsewhere¹⁴⁷⁵, possibly in close vicinity, should a second fortification across the Olt exist indeed¹⁴⁷⁶.

The evidence for the presence of some vexillations of legion XIII Gemina at Hoghiz (IDR III/4, 230) does not confirm this fort belonged to Dacia Superior under Hadrian (IDR II/4, 185), the main reasons being the other troops from the fort pertaining to the province army of Dacia Inferior¹⁴⁷⁷. Or, many stamps of legions from Germania are known in forts from Raetia or Noricum¹⁴⁷⁸.

¹⁴⁷¹ IDR III/4, 235.

¹⁴⁷² See as well Speidel 1977b, 133.

¹⁴⁷³ For this phenomenon see Piso 1993, 82–93.

¹⁴⁷⁴ Székely 1975, 344, Fig. 3.

¹⁴⁷⁵ There is sufficient evidence proving very clearly the Roman army mobility, the best example being the Vindolanda tablets, see Birley 2002.

¹⁴⁷⁶ Niegebaur 1851, 277, nr. 9; Orbán 1871, 199; Bakó 1975, 141.

¹⁴⁷⁷ See details, in particular for dating Ti. Claudius Constans (AD 130–132) governorship, in Piso 2000a, *passim*.

¹⁴⁷⁸ The inscription from Hoghiz was one of the main arguments according to which south-eastern Transylvania was originally part of Dacia Superior and then, by the end of Hadrian's reign or under

55. IONEȘTII GOVOREI (*Pons Aluti*)

The only archaeological research was performed in 1975 by I. Bogdan-Cătănicu. Originally Gr. G. Tocilescu, the first to suppose here a fortification, had archaeologically investigated the area, believing it was a fort interior, which was in fact the civil settlement from the vicinity¹⁴⁷⁹.

Troop

The abbreviation of the name *coh. III Gallorum* on a tile stamp from Ioneștii Govorii and on a stamp from Boroșneul Mare seems identical, in the form COH(ors) III G[al(lorum)] (IDR II 555; IDR III/4, 330). None of them are known by photos and seem to have been lost, the single drawing preserved being that of the stamp found in the enclosure wall of the fort at Boroșneul Mare, where only letters COH III C can be distinguished¹⁴⁸⁰. The stamp from Ioneștii Govorii is known only from Gr. Tocilescu's transcript, who claims that it was discovered on a brick with the engraved letters COH III G¹⁴⁸¹. Finally, Sex. Iulius's command first of *coh. III Gallorum* and then concurrently of *numerus Syrorum Sagittariorum* and *ala I Hispanorum* (CIL II 1180 = ILS 1043 = AE 1965, 237)¹⁴⁸² may suggest that the three troops were in the neighbouring forts at Ioneștii Govorei, Romula and Slăveni.

56. At almost 20 km south Slăveni, close to Olt River's flowing into the Danube, at **ISLAZ-VERDEA**, a large fortification was identified, being c. 340.00 × 120.00 m (its south side was destroyed by the Danube), about which I only know that had three earthen ramparts and three defence ditches¹⁴⁸³. In 1977 several trial trenches were made in the area, but only parts of *vicus* were established¹⁴⁸⁴. The coins discovered in the area date under Traian, Hadrian, Antoninus Pius, Septimius Severus and Caracalla¹⁴⁸⁵.

At about 4 km from the fort at Islaz-Verdea, at Islaz-Racovița another fortification is suspected, earlier and smaller, also partially destroyed by the Danube. Only the north-western corner of 75 × 105 m sides and earthen ramparts and defence ditches are preserved¹⁴⁸⁶.

57. LIȘTEAVA

A fort is supposed near Jiu River, but the area was not at all investigated¹⁴⁸⁷.

Another Roman fortification is also probable north Lișteava, however identified by D. Tudor as a Dacian fortification¹⁴⁸⁸.

Antoninus Pius, of Dacia Inferior, as argued for the first time by I. I. Russu in 1975 (IDR I p. 20). C. C. Petolescu's argument is the inscription recording the participation of legionary vexillation in construction works at Tigava Castra (Mauretania Caesariensis) (AE 1948, 132), in a province with only auxiliary troops in garrison, after Petolescu 2000, n. 27.

¹⁴⁷⁹ After Vlădescu 1986, 42–3.

¹⁴⁸⁰ Székely 1975, Fig. 3.

¹⁴⁸¹ *Apud* Bogdan-Cătănicu 1997, 66, n. 44.

¹⁴⁸² The command of Sex. Iul. Possessor could have been concurrent, see Domaszewski 1898, 135, n. 6; Stein, RE X, col. 780, no. 402 (?); Pflaum 1960, 504–7; Nesselhauf 1964.

¹⁴⁸³ For a brief history and bibliography see Vlădescu 1986, 29–30, n. 114–6.

¹⁴⁸⁴ Vlădescu 1986, 29–30.

¹⁴⁸⁵ Bolliac 1858, 80; Tudor 1978, 279.

¹⁴⁸⁶ Tudor 1978, 279.

¹⁴⁸⁷ Gr. G. Tocilescu and P. Polonic mentioned here a stone Roman fortress, after Tudor 1978, 284.

¹⁴⁸⁸ Tudor 1978, 271. See also Gudea 1997d, 95.

58. MOFLENI (*Pelendava*)

It is assumed again the existence of a brick enclosure fort, arguing that the Roman building material (bricks with grooves, large stone blocks) of military character (sic!) was used to some modern constructions in Craiova¹⁴⁸⁹. The only piece with real military character is a brick with the stamp NM (IDR II 173), the abbreviated name of the troop *numerus Maurorum* (see *infra*)¹⁴⁹⁰, but obviously is not a peremptory proof that here functioned a fort or that the troop had its garrison here. Or, the garrison fort of the troop was located nearby, at Răcari.

59. At MOMOTEȘTI, locality identified after *Tabula Peutingeriana* with *Rusidava*, excavations of 1982 and 1983 did not identify any fort, although its existence is probable, also in this area being discovered Roman materials (?)¹⁴⁹¹. On the single stamped brick an X can only be distinguished (IDR II, 554).

60. PURCĂRENI

The fort is situated on river Doamnei, in the north side of *limes Transalutanus*. The western (160 m) and partially the northern and southern sides are preserved¹⁴⁹².

61. PUTINEIU

Archaeological excavations carried out by I. Bogdan-Cătănicu in the second half of the 70's have focused only the fortification system, being identified the rampart and the two defence ditches¹⁴⁹³. The fortification dimensions are 53.00 × 53.00. In what concerns the fort interior, we only learn that *via sagularis* was 1.00–1.50 m wide and had two usage phases¹⁴⁹⁴.

Only two gates were identified here, one of them being entirely excavated, observing also two occupation phases¹⁴⁹⁵. On the other hand, inside only one occupation phase existed¹⁴⁹⁶.

62. RACOVIȚA (*Praetorium*)

The fort of about 118.00 × 106.00 m at Racovița is located 500 m north the fortification at Copăceni (pl. 35). The only buildings about which we have information are from *latus*, identified as *principia* and storehouse, without having any indication on the fort construction periods. Some researchers considered the first half of the 2nd century as construction date of the fortification, since the gate towers are rectangular and slightly project outwards alike in other fortifications on Olt line¹⁴⁹⁷. The towers shape is however not a decisive dating criterion, therefore the beginning of the stone fort remains uncertain. I mention that the towers of the fort at Bumbști, also rectangular and without an outward projection, date with certainty in AD 201.

Other researchers assumed that the fortification was the fort garrison of the troop *numerus Burgariorum et Veredariorum* (see *supra*), as the fort at Copăceni had become too

¹⁴⁸⁹ Tudor 1978, 285.

¹⁴⁹⁰ The piece was discovered in the foundation of the old belfry of Saint Dumitru church, Tudor 1978, 285.

¹⁴⁹¹ Tudor 1978, 298.

¹⁴⁹² Tocilescu 1900, Fig. 72.

¹⁴⁹³ Bogdan-Cătănicu 1997, 105 sqq.

¹⁴⁹⁴ Bogdan-Cătănicu 1997, 105.

¹⁴⁹⁵ Bogdan-Cătănicu 1997, 105–6.

¹⁴⁹⁶ Bogdan-Cătănicu 1997, 106.

¹⁴⁹⁷ Gudea 1997, 93.

worn¹⁴⁹⁸. This difficult to prove since, as we have seen, the fort at Copăceni still functioned by the end of the 2nd century. In addition, noticeably Racovița fort sizes were almost double than the fortification at Copăceni. Therefore, it is impossible it have been built by and for the same garrison troop. Moreover, it would have been against the Roman's construction logic to build, in case a fort was obsolete, another one at 500 m distance from the first. The decision to build a fort in a particular position was obviously not accidental. Therefore, the construction of the forts at Copăceni and Racovița would have been by necessity, even though they were not contemporary.

Outside the enclosure, attached to it, were found small platforms with brick-made extremities¹⁴⁹⁹. These are placed two on each side, between the corner towers and gates. Their sizes seem strange, some of them being long and very narrow, for instance 6.10 × 0.15 m or 3.95 × 0.17¹⁵⁰⁰. The length of the other falls within the limits of the two mentioned, and the widths are slightly over 20 cm.

The fort gates have rectangular towers very slightly projected outwards, each having c. 5.00 m span¹⁵⁰¹, similar to those at Copăceni, but corner towers and the enclosure itself are different from those in the mentioned fort. Unlike other forts on Olt line, at Racovița was not necessary to add buttresses to strengthen the enclosure wall. I therefore ask if this does not prove that the fortification was built either before the forts at Copăceni, Rădăcinești, Titești and Arutela or after their construction¹⁵⁰².

Principia

The structure is slightly asymmetrical oriented compared to the fortification sides, fact that indicates a layout change. As construction technique, the building walls are similarly built with those of the enclosure made of quarry stone bound with mortar, the west wall being reinforced with bricks in the corner, as the case of the corner towers or the mentioned platforms¹⁵⁰³. The walls are 0.80–0.85 m thick and are built 'directly on battered clay'. Therefore it is possible that *principia* was built directly of stone. An earlier timber phase is not excluded, but I assume that the excavators would have observed an occupation layer previous the one corresponding to the stone phase. The area occupied by the headquarters building is almost 600 m², occupying 4% of the fort total area.

The entrance into the headquarters building is impressive, measuring over 6.00 m, given that the area of all gates measured each c. 5.00 m. However, in Britannia forts the sizes of the entrance into *principia* are generally of 2.50 to 3.50 m, irrespective the entrance type, either of pillars, timber posts or simple opening in the wall.

Courtyard. The front part of the headquarters building generically called 'courtyard' was identified as a yard surrounded by a wall, which had in the plan a single opening, although another one was definitely necessary for access to the *basilica*. The existence of an 1.80 m wide area paved with bricks on the west side, from the *basilica* made the excavators assume here of a connecting portion with the *basilica*¹⁵⁰⁴. It is possible that this space was

¹⁴⁹⁸ Tudor 1981, 81, 85.

¹⁴⁹⁹ Vlădescu 1983, 110.

¹⁵⁰⁰ Vlădescu 1983, 110.

¹⁵⁰¹ For details see Vlădescu 1983, 110–1.

¹⁵⁰² The forts stone enclosures provided with buttresses under Hadrian were initially assumed also by D. Tudor, Tudor 1968, 274–6, 302, 314.

¹⁵⁰³ After Vlădescu 1983, 113.

¹⁵⁰⁴ Vlădescu 1983, 113.

actually a corridor or peristyle that usually appears between the *basilica* and the front courtyard of the headquarters building, this interval being usually narrower than the portico normally surrounding the courtyard. The lack of rooms on courtyard sides is not necessarily unusual, but at Racovița not even a portico is reported, which is rather curious. The dimensions of this open space are 20.50×10.15 , being quite narrow, with a ratio of 2.01. Only in the case of this building part the archaeologists decided that the walls seem to be abutted, therefore, the courtyard construction would belong to a third construction phase of the headquarters building¹⁵⁰⁵. Unfortunately, nowhere is stated what the excavators understood by construction phases of the headquarters building, however it is obvious that the courtyard and back rooms arrangement was contemporary with the *basilica* construction, since they are part of a unitary construction. Clearly, the construction stages did not perfectly coincide, which explains the small differences in terms of construction techniques. Moreover, such differences can be assigned to revetments made during the use of the building.

Basilica. The dimensions of this part of the headquarters building are normal, 19.50×9.50 m. It is very interesting, however, that on the short axis of the *basilica*, in extension the so-called entrance to it from the courtyard, were found on a relatively small area portions covered with tiles and bricks fragments, thus reaching the conclusion that on both sides of this supposed central corridor two rooms must have been¹⁵⁰⁶. The excavators could be right, analogies of this kind being met in some forts dated in the 3rd century AD¹⁵⁰⁷. It is possible that the tribunal was not identified precisely because subsequent changes in the *basilica* area, especially since tribunal walls are usually of poor quality.

It is curious that the areas occupied by the inner courtyard and the basilica are almost similar, the first occupying 33% of the headquarters building total surface, while the basilica only 30%. Normally, the courtyard sizes should have been greater compared with those of the basilica, but considering the total area that the building occupied, differences may be normal.

Back rooms. There is one room on both sides of the *aedes*, each sized c. 6.00×6.00 . In this area, walls are only 0.70 to 0.75 m thick, hence entrances from the *basilica* could not be identified¹⁵⁰⁸. The *aedes* is $6.10 \times 5.75 \times 6.35 \times 5.85$ m, being approximately 35 m², area relatively large compared with fort sizes. Typically, the strongroom covers an area of 25 m². The excavators presume that the walls of the back rooms are not organically linked with the main northern and southern walls of the headquarters building, thus proving a 'second construction phase'¹⁵⁰⁹. Differences observed by the excavators in the back rooms area are explained by construction stages of any building. In the case of the headquarters building, construction starts with the *aedes* as clearly established in the forts from South Shields or Brecon Gaer¹⁵¹⁰. Moreover, the *aedes* may remain occasionally an independent structure, without being directly linked to the outer walls of the headquarters building¹⁵¹¹.

¹⁵⁰⁵ Vlădescu 1983, 112.

¹⁵⁰⁶ Vlădescu 1983, 113.

¹⁵⁰⁷ See Johnson 1987, 128, 131.

¹⁵⁰⁸ Vlădescu 1983, 112.

¹⁵⁰⁹ Vlădescu 1983, 112.

¹⁵¹⁰ Bidwell 1997, 67; Bidwell, Speak 1994, 58.

¹⁵¹¹ This is the case of one construction phase of the headquarters building from South Shields, the strongroom being considered 'free-standing', Bidwell, Snape 1994, 58.

Horreum

At about 13.00 m north the headquarters building is a *horreum*, with an area of c. 477 m², thus occupying 3.8% of the fort total area. The opposite sides of the store house are not perfectly equal, with c. 1.00 m differences between them, thus resulting an asymmetrical layout, alike the headquarters building one¹⁵¹². The walls are made of stone and mortar and are rather thick, of 1.14 to 1.40 m. Therefore buttresses were no longer required.

The area between *principia* and *horreum* remained probably free, since the entrance into the store house—7 m wide—is on the long southern side from the headquarters building. Entrances on the long side are extremely rare. A similar situation was identified in Britannia only in the fort at Wallsend¹⁵¹³. At Racovița, the explanation for the location of the entrance on this fort side would be that the goods handling area was much larger.

Inside, in the north-west of the structure, an area of c. 8.30 × 10.00 × 8.10 × 9.80 m was discovered, covered with cobbles placed fairly regularly, which could have marked a room, from where towards the entrance started a 0.90 m wide corridor, with same characteristics¹⁵¹⁴.

It is strange that within the *horreum*, in its north-east side, were found nails, harness appliqués, *pilum* heads, an arrowhead, a *pugio* and a marking iron tool¹⁵¹⁵, which are not common *horrea* finds.

Primarily by its location, the building north the *principia* might be a *horreum*. However, inside the building were not identified pillars or supporting walls of floor, usually heightened. Cases when floors are laid directly on the ground are relatively rare, and where the floor existed, it was waterproof, made of concrete or large stone slabs¹⁵¹⁶. D. J. A. Taylor believes that these constructions without heightened floor cannot be considered proper granaries¹⁵¹⁷. Usually, access was made on the short sides, or here it is on the long southern side. Moreover, granaries stretch over 1.5–2% of the forts total surface, with several exceptions, such as the granaries from the fort at Strageath during the Flavian stage, occupying 3.7% of the fort, but they are related to military campaigns, especially with that of Agricola¹⁵¹⁸. Granary dimensions are generally small, surfaced between 15–45 × 6.9 m and having a length and width ratio of 1: 2. Or, the width of the storehouse at Racovița is quite large, with a 1.53 length/width ratio. Another issue of its function as a *horreum* is the lack of buttresses on the outer walls. It is true that the walls are rather thick, but the building is impressively wide for a *horreum*, therefore one would have expected such buttresses, necessary not only for roof support, but also for carrying the walls under extreme stress due to the large quantity of stored goods. The only explanation for the lack of buttresses is a shingle roofing instead of tiles.

In conclusion, I believe that the structure from *latus sinistrum* is not a *horreum*, having a different functionality. Given its position, it might have been the commander's quarters, but it has no features of a civil construction. Considering the large area, probably left free, between this structure and the headquarters building and the discovery of metal pieces, especially arms, I believe it could have functioned as *fabrica* or a storehouse.

¹⁵¹² Vlădescu 1983, 113.

¹⁵¹³ Hodgson 2003; Taylor 2000, 32.

¹⁵¹⁴ After Vlădescu, Poenaru-Bordea 1983, 345.

¹⁵¹⁵ Vlădescu, Poenaru-Bordea 1983, 348.

¹⁵¹⁶ See for example the case of forts described by Rickman 1971, 295; Gentry 1976, 9 (also see classical authors describing such floors).

¹⁵¹⁷ After Taylor 2000, 31 the danger of moisture is not removed.

¹⁵¹⁸ Frere, Wilkes 1989, 123. Too large differences are recorded in Britannia also at Benwell, Birrens, Haltwistle Burn, Lyne and South Shields, specifying that the latter was a supply base, Gentry 1976, 27–8.

It is interesting that *principia* and the building north of it are not in a right alignment, starting from *via principalis*, the so-called *horreum* being displaced by few meters westwards. Therefore, the planning of the buildings in the fort centre is unusual, which obviously will influence the buildings distribution in *retentura*, on which unfortunately, we have no data.

63. RĂCARI

The fort at Răcari is located left the Jiu valley, by the confluence of Motru River with the first. Stone enclosure dimensions are 173.20 × 141.50 m (2.45 ha)¹⁵¹⁹ or 141,60 × 137,50 m (pl. 41)¹⁵²⁰. First excavations were performed during C. Bolliac and G. Gr Tocilescu's period, in 1897–1898, several discovered objects being published by V. Parvan¹⁵²¹. Following the research of 2004, in the southern half of the east side was identified a defence ditch that belonged to an enclosure previous the stone one known insofar¹⁵²².

Subsequently, the fort was expanded, a first earthen enclosure and a second of stone being established¹⁵²³. The enclosure wall was made of stone and brick, being c. 1.00 m thick. The rampart behind the wall was 8.00 m wide and *via sagularis* was c. 3.00 m wide. *Via sagularis* had superficial structure, however not unusual, made of only one gravel layer. Four revetments were noticed, from the last coming a coin from Gordian and a *pilum* head. The width of this small street was between 2.00 and 2.65 m, being expanded with each revetment.

Corner and the three gates towers are rectangular and slightly projected outwards. *Porta praetoria* is on the east side, having alike the other gates a c. 3.50 m span, with walls of c. 1.00 m. In gate area was identified a thick layer of burn of c. 20 cm¹⁵²⁴.

The plan of the fort provided by the excavators after 2000 is only partially correct, because *via quintana* is probably right behind the headquarters building and not at a considerable distance from it. The novel elements, except for the gates identified on the enclosure, comprise what seem to be two interval towers, which were completely uncovered. If *via quintana* would be placed, as expected, behind the headquarters building, its ends would reach precisely these towers on northern and southern sides. Therefore, here we may suppose two small gates located midway distance between *portae principales* and fort corners¹⁵²⁵.

Principia

One of the two excavated buildings was the headquarters building. It is sized 37.00 × 34.00 m, covering 1258 m² and 5.1% of the fort total area. A similar plan, but with slightly different proportions had the headquarters building of Slăveni (see *infra*). It can be seen from the plan that the east-west axis of the headquarters building is displaced by few meters southwards.

The entrance into *principia* is monumental, of 7.00 m span. As I will presumed in the case of the fort at Slăveni, where the span was only 4.40 m, an elevated entrance was in place.

¹⁵¹⁹ Florescu 1931a, 7.

¹⁵²⁰ Teodor et alii 2004, nr. 154.

¹⁵²¹ For this fort history and bibliography see Tudor 1978, 292.

¹⁵²² The authors concluded that the ditch belonged to a fort 'smaller than the one during the province existence' (?), CCA 2004 (2005), no. 182. The only chronological data available to archaeologists are two coins found in the arrangement level over the ditch, dated after AD 156, CCA 2004 (2005), no. 182.

¹⁵²³ CCA 2004 (2005), no. 182.

¹⁵²⁴ Tudor 1978, 292.

¹⁵²⁵ A gate discovered at Wallsend was set by the end of *via quintana*, Hodgson 2003, Fig. 9–10.

It is difficult however to imagine what form it must have been, mentioning only that entrance into headquarters buildings were usually about 2.50–3.50 m. However, even a monumental entrance was quite hard to build, considering the extremely large opening in the building front wall. Therefore, it is possible that only a *vestibulum* or simply an uncovered opening existed. The roof ends in front the limits of the front rooms and since the portico was not continuous, a free interval ensues.

The inner courtyard is bounded on three of its sides by a portico of 2.50 m depth, behind which a number of rooms were set on three of the sides. Thus, the open space is relatively small, occupying c. 20% of the total structure. Nevertheless, comparing this portico span to the width of the one at Slăveni, it is much smaller, the reason being probably the roof heightening as well¹⁵²⁶. In one of the courtyard corners was identified the stoen base of a statue, while fountains were found in the other corners from where were collected fragments of imperial bronze statues. On three of the sides behind the portico about 18 rooms of the same size were placed¹⁵²⁷. Five rooms each, sized 3.30 × 3.60 m, were on the northern and southern sides. In the front of the headquarters building are four divisions each to the south and north of the entrance, one on each side being only 1.10 m wide. The latter can hardly be deemed rooms, being rather hallways whose main function was to comprise the staircase for access to an upper level. A storey over the rooms situated on all three sides of the courtyard can be confirmed by the portico width, which was at some point that small. Rooms from Răcari are smaller than those at Slăveni. Therefore, deeming them deposits (*armamentaria*) is difficult to believe.

Basilica also occupies c. 20% of the building, being sized 32.00 × 8.00 m and having classical form¹⁵²⁸. The tribunal was not identified neither in this case. Access from courtyard to the basilica was probably made through several arched openings, whose bases were placed on the wall that seems to separate these two structures, forming a stylobate (see *supra* and the case of the fort at Slăveni).

Back rooms. Behind the basilica were discovered several rooms, the central one being apsed, the wall of which was carried on the outside by three solid buttresses¹⁵²⁹. The apse radius is 5.90 m, even greater than the one in the headquarters building at Slăveni, of 5.60 m. It is interesting that only the outer wall of the apse was provided with buttresses. The reason for its reinforcement might have been that for carrying the heavier roofing of the central room, it reaching the basilica height, being usually higher and different from the neighbouring rooms roofing¹⁵³⁰. Such buttresses were built on the entire back side of the headquarters building at South Shield being explained as need for increasing the wall resistance, as the roof was a shed roof, pressure on the outer wall being thus very high, and above the back rooms a storey could have been designed¹⁵³¹.

One both sides of the strongroom there were two rooms of equal size 5.10 × 5.00 m, heated with *hypocaust* and separated by a corridor¹⁵³². Such corridors, 1.60 m wide, could have

¹⁵²⁶ D. J. A. Taylor suggested this in the case of the portico narrowed at some point from the fort at Chester, Taylor 2000, 27.

¹⁵²⁷ Tudor 1978, 292.

¹⁵²⁸ Tudor 1978, 292–3.

¹⁵²⁹ Tudor 1978, 293.

¹⁵³⁰ For a proper reconstruction see Johnson 1987, Abb. 78.

¹⁵³¹ Bidwell, Speak 1994, 72.

¹⁵³² Only in this context D. Tudor noted without providing any other argument that ‘... all the rooms were provided with *hypocaust* for heating the storey stretching across the entire *praetorium* (except the

functioned alike those from the front of the headquarters building, designed for sheltering the staircase, thus further confirming a storey.

Storeys over headquarters buildings in forts are supposed at South Shields and proved only at Housesteads, in the first case above rooms flanking the courtyard and possibly the back rooms, and in the second case above the back rooms¹⁵³³.

Horreum

The only data about *horreum*, located in *latus sinistrum*, refer to its dimensions of 20.00 × 9.00 m (180 m²) and the existence of seven exterior buttresses on all sides, with widths of 0.65–0.70 m. There is no information on the elements supporting the floor. It is obvious that store house sizes and proportions in the entire fort area are almost insignificant, therefore, another *horreum* was evidently required, as noted by D. Tudor as well¹⁵³⁴. Generally *horrea* occupy 1.5–2% of fort surfaces, while the one from Răcari extends on only c. 0.7% of the fort. Therefore, a similarly sized *horreum* was appropriate.

The archaeological excavation carried out by colleagues from Bucharest and Craiova in the campaign of 2003 is commendable as a first attempt to verify and complete previous excavations¹⁵³⁵. The trench of that year overlapped, being wider and longer, a 1991 trench, excavated over the fort fortification system, and in the case of the newly dug, partly over the fort interior, in *praetentura dextra* area. I will not insist here on elements related to the fort enclosure, the excavators arguments on several technical issues of rampart, wall and ditches construction being very detailed. I only mention that recent excavations revealed on one hand, several ditches of the stone fort, although originally only one was reported, and, on the other hand, previous ditches of an earth-and-timber enclosure¹⁵³⁶.

West this alley was discovered a structure of clay walls, whose sizes are unfortunately unknown¹⁵³⁷. If the three bricks found one near the other close to the building western wall were, as the excavators argued, at 40 cm from the wall, then proper walls would have been c. 20 cm wide. This conclusion further obscures the walls structure described as being made of two brick paraments and clay filling. Next, we learn that ‘the most interesting case was the bundle of three bricks stacked from grid numbered 5, near the southern bank, whose position (scattered like a pack of cards and at 90° from the wall) suggests they had fallen from rather high. The bricks dispersion direction suggests they had fallen from the eastern wall, located at over 2.00 m distance and not from the one in the west, located at only 40 cm. If observation and deduction are correct, then the group of three bricks fell from at least 2.00 m high, allowing us to infer that the wall was built, up to the top, in the same manner’¹⁵³⁸. I do not

courtyard).’, after Tudor 1978, 293 the author’s inconsistency is absolutely obvious and it is hard to imagine what he means. Perhaps here, like at Slăveni, a room under the *aedes* was supposed, further considering that a heated storey was above. Gr. G. Tocilescu’s manuscripts used by D. Tudor probably provided more details, however we have no access to them.

¹⁵³³ See Bidwell, Speak 1994, 72, 74 with bibliography.

¹⁵³⁴ Tudor 1978, 293.

¹⁵³⁵ Teodor et alii 2004, no. 154.

¹⁵³⁶ Teodor et alii 2004, no. 154.

¹⁵³⁷ The authors describe the walls as being made of two paraments of brick with clay binder and fill, Teodor et alii 2004, nr. 154. Images show that the walls were primarily made of clay, as proven by resulting red colour of wall firing. Bricks could have been used at their base as with many other forts from Dacia Inferior.

¹⁵³⁸ Teodor et alii 2004, no. 154.

believe that this scenario can be so convincing for establishing the walls building technique, adding that few bricks were discovered in this building area to decide that walls had brick superstructure.

Finally, the three walls clearly identified in the excavation begin immediately near *via sagularis* being placed at c. 2.00 m intervals, respectively c. 1.60 m, as shown by the provided plan, although the authors claim that the space between the 'walls' was east to west of 3.23 m and 3.05 m¹⁵³⁹. Oddly, the outer wall near *via singularis* is not parallel with it or the other two walls, being displaced from the trench by 7°¹⁵⁴⁰. Therefore, the distance between the first two walls is in the southern edge of the trench of c. 1.60 m and of c. 2.00 m in the northern edge. Given the distance between the walls, found in plan, I do not believe that this structure was a barrack, the compartments being too small for *papiliones* or *arma* as suggested at some point by the excavators¹⁵⁴¹. It is also hard to say if it functioned as workshop¹⁵⁴².

Further it was assumed that inside, two occupation levels corresponding to the walls, existed¹⁵⁴³. However, at best I can admit that the clay walls belonged to the first Roman level, however the second seems to overlap them. This is observed on the western profile, which is practically the demolition level of the first phase or the arrangement and occupation level of a second phase, to which these walls no longer correspond. I note that the archaeologically 'sterile' soil is not observed anywhere in the plan or profile, thus it is uncertain if we are dealing with the first and single two phases¹⁵⁴⁴.

In conclusion, I note the existence of a structure of which were uncovered parts corresponding to three rooms. It is hard to believe it was a barrack, but if that was alike a barrack with rows of rooms, it could be oriented only *per strigas*. If otherwise, only two adjoining rooms would be identified. What was discovered west the last wall, cannot be a verandah, as even the excavators show in plan that the level of both parts was similar. In addition, if the building was oriented *per scamna* (north-south) the deviation of the wall from *via singularis* would have become too great.

Troop

At Răcari were discovered two types of stamps, NΜΣ (with seven variants) and NMS (S retrograde) (AE 1959 325 = IDR II 168). Regarding the last initial, there was much speculation, presumed to be either E(quitum) or E(lectorum) or Σ(aldensium), the latter version being completed by N. Gostar as the initial of the garrison place¹⁵⁴⁵.

At Răcari was also discovered a military diploma dated under Antoninus Pius granted to *Mauris eq[ui]t(ibus) et pedit(ibus)?] qui sunt [in Moe]sia Sup[er]iore]* (CIL XVI 114 = IDR I 29). C. C. Petolescu argues the diploma reached the area following its holder movement to Răcari, where he might have had a close relative, thus suggesting that the Moors were

¹⁵³⁹ Teodor et alii 2004, nr. 154.

¹⁵⁴⁰ Teodor et alii 2004, nr. 154.

¹⁵⁴¹ Teodor et alii 2004, nr. 154.

¹⁵⁴² Archaeologists initially assumed that, also due to the material found inside 'bronze wire, slag in many spots and on both levels' (Teodor et alii 2004, no. 154), a fact which however remains uncertain.

¹⁵⁴³ Teodor et alii 2004, no. 154.

¹⁵⁴⁴ An early phase was observed in the excavation of 2004, being identified the trenches of four timber walls of 30 cm diameter, placed in pairs at distances of c. 3.50 m (CCA 2004 (2005), no. 182). Archaeologists considered, based on poor archaeological material that they were dealing with stables (CCA 2004 (2005), no. 182), impossible to prove at the time.

¹⁵⁴⁵ Gostar 1954, 607–10.

stationed at Răcari under Antoninus Pius¹⁵⁴⁶. However, a descendant of a Moors who received the diploma under Antoninus Pius could also subsequently lose it.

Two bricks with same stamp consisting of the initials NMS (also S retrograde), similar to those from Răcari were found to Sânpaul (Harghita county)¹⁵⁴⁷. It is considered that this abbreviation designated another troop of Moors¹⁵⁴⁸, however is not absolutely excluded that the units recorded at Răcari and Sânpaul were identical, the similarity between certain stamp types, with an ending retrograde S being striking¹⁵⁴⁹, although this is unlikely. Theoretically, as in the case of *Mauri Miciensium*, *Optatiensium* or *Tibiscensium*¹⁵⁵⁰, one should expect that the last letter of the said stamps represented the troop's place of garrison. However, if the troop at Răcari would be identical with the one at Sânpaul, we do not see why it preserved its initial in both places, since the name of the localities was likely different even if started with the same initial¹⁵⁵¹. This S, which caused controversy on the name of the troop's garrison place, may be in fact only the representation of the *milliaria* sign. If so, the fort at Răcari would be very suitable for such a troop even if *equitata* as seems to be the unit of Moors, since the diploma from Moesia also records the Moors, both infantry and cavalry. Similarly, the sizes of the fort of Sutoru seem to suggest high effectives of the Moors troops.

The archaeological material discovered in the fort at Răcari confirms its occupation during the 4th and 5th centuries AD, without knowing if still retained its military function alike the fort at Băneasa¹⁵⁵².

64. RĂDĂCINEȘTI

In the small fortification from Rădăcinești excavations were carried out between 1971–1975 by C. M. Vlădescu and Gheorghe Poenaru Bordea. Fort dimensions are 54.60 × 56.70 m (pl. 33.1), the enclosure being built on stone with a wall supported by buttresses on the inside, being 1.60 m wide¹⁵⁵³. Its construction is attested in two inscriptions (CIL III, 12604–5 = IDR II 584–5), probably dated in AD 138 and dedicated by *numerus Syrorum Sagittariorum*.

Only parts of the headquarters building and of *porta praetoria* and *decumana* are known, the latter without towers. The enclosure of the neighbouring forts at Arutela and Rădăcinești has same features.

A fortification is reported at **Jiblea** as well, located on Olt south of Arutela, however archaeological digs conducted in 1970 by C. M. Vlădescu and Gheorghe Poenaru Bordea were very limited, conclusions specifying that a fort did not exist there¹⁵⁵⁴, although some authors consider it factual¹⁵⁵⁵.

¹⁵⁴⁶ Petolescu 2002, 135.

¹⁵⁴⁷ IDR III/4, 254 here it is asserted that the stamp from Sânpaul was identical with the one from Răcari.

¹⁵⁴⁸ Petolescu 2002, 135.

¹⁵⁴⁹ On a single stamp from Răcari appears S retrograde, the majority bearing letter Σ, see IDR II 168; Gostar 1954.

¹⁵⁵⁰ For the inclination to name *nationes* troops depending on their location, only to avoid their numbering, see Speidel 1975, 210.

¹⁵⁵¹ Callies 1964, 182. M. P. Speidel argues that troop names do not necessarily involve their establishment in certain places, Speidel 1975, 210. Arguments consist of the fact that *numerus Syrorum Malvensium* seems to have preserved toponym after its transfer to Mauretania, but precisely same fact makes M. P. Speidel date the inscription in which the *numerus* appears with this title shortly after its transfer from Dacia, this name becoming useless later, Speidel 1973, 172.

¹⁵⁵² Inside the fort some changes were noticed as well, such as its transversal division, after Tudor 1978, 294.

¹⁵⁵³ Vlădescu 1986, 62–3.

¹⁵⁵⁴ Vlădescu 1986, 46.

¹⁵⁵⁵ Gudea 1997, 90.

65. RÂȘNOV (*CUMIDAVA*)

The fort of Râșnov was identified on field by mid 19th century, some data concerning it coming originally from M. J. Ackner, and then from several authors (pl. 30)¹⁵⁵⁶. Despite these early mentions, they were merely indicative, without remarks on the internal planning of the fortification, and at best, comprised topographical comments. First systematic excavations were carried out by M. Macrea in 1939, but except for brief information on the fort and publishing of inscriptions¹⁵⁵⁷, the documentation is entirely lost, therefore no plan of excavations or fort are available. Research was resumed only in 1969, furthered until 1974, led initially by I. Mitrofan and subsequently by N. Gudea¹⁵⁵⁸.

Following these initial excavations, the first plans of the fortification and of excavations carried out in 1969–1970 were drafted¹⁵⁵⁹. They indicate that parts of the enclosure, gates, part of the corner towers and four buildings within the fort were investigated.

Three phases of the enclosure were identified. The first enclosure, earthen made, was approximately 114.00 × 110.00 m, with the long side running north/east—south/west. The rampart base was c. 10.00 m wide and inside compact coal stripes were found. On three sides was identified a defence ditch c. 3.00 m wide and 1.50 m deep¹⁵⁶⁰.

The stone enclosure of the fort measured 124.00 × 118.00 m, having similar orientation as the earthen fort¹⁵⁶¹. The wall was over 1.50 m thick, its foundation being by 20 cm wider. During the stone enclosure phase, three ditches were set on the north/east side and two on the south-west side, whose width varied from 1.65 m to 5.50 m¹⁵⁶².

The corner towers walls ‘bound’ with those of the enclosure and surround a 3 m² area¹⁵⁶³. Although inside the tower, pottery fragments were found, it is doubtful that it was actually dwelled.

The fort gates had rectangular towers of c. 5 m² interior space, slightly projecting outwards, by c. 0.35 m, and were obviously built at the same time with the enclosure wall¹⁵⁶⁴. *Porta praetoria* is oriented to the north-east, its and other gates span being c. 4 m¹⁵⁶⁵.

Inside the fort several buildings were uncovered, some being apparently excavated by M. Macrea.

Principia

The headquarters building was sized 24.50 × 21.00 m, thus covering 3.5% of the fort total area. There were identified two construction phases. Its planimetry is classical, provided with a central courtyard, a *basilica* and three main rooms in the back. The position along the building long sides of two *basilica* type structures, apparently adjacent to it, is unusual. The

¹⁵⁵⁶ Ackner 1856. For entire bibliography see Gudea, Pop 1971, n. 5.

¹⁵⁵⁷ Macrea 1944.

¹⁵⁵⁸ The results of archaeological excavations up to 1970 were published in Gudea, Pop 1971, and subsequent in Gudea, Pop 1973 and Gudea, Pop 1975. For other interpretations of the excavations in the fort at Râșnov-Cumidava see Bogdan-Cătănicu 1997, 48–9.

¹⁵⁵⁹ Gudea, Pop 1971, Fig. 2.

¹⁵⁶⁰ Gudea, Pop 1971, 14.

¹⁵⁶¹ For sizes given by previous authors, see Gudea, Pop 1971, n. 12.

¹⁵⁶² Gudea, Pop 1971, 17–8.

¹⁵⁶³ Gudea, Pop 1971, 19.

¹⁵⁶⁴ Gudea, Pop 1971, 21.

¹⁵⁶⁵ Gudea, Pop 1971, 23–4.

plan provided by N. Gudea¹⁵⁶⁶ does not accurately indicate such space was actually adjacent to the headquarters building or if it was in one way or another compartmented. Additions similar to those at Râşnov were initially noticed on one side of the headquarters building at Bologna as well, but I. Stanciu corrected properly the plan, distinguishing between respective construction and the headquarters building¹⁵⁶⁷. However, if indeed that was the case, we must wonder, as analogies are unknown, on the function of such halls that seem attached to the headquarters building. A solution would be that to assign the function of weaponry storages to buildings usually part of the headquarters building, there where the inner courtyard of the structure is not bordered by rooms. These halls might therefore be *armamentaria*, being similar to halls flanking the courtyard of many forts of the Empire¹⁵⁶⁸. On the other hand, the size of the halls from Râşnov are rather similar to *horrea* without buttresses, which could be missing since the oblong divisions were not very wide, while one side was supported by the headquarters building peripheral walls.

Courtyard. The width of the entrance into the courtyard can only be guessed upon the fort plan¹⁵⁶⁹, being c. 7.00–8.00 m. The courtyard is sized 19.50 × 10.00 m, thus occupying 37% of the building area. Proportions are quite high, given the fact that the usual percentage of the courtyard in the headquarters building total surface is between 25–30%. Moreover, the courtyard is usually square, or, in this case, the length/width ratio is 1.95, similar to the ratio found with basilicas. Another curiosity is the lack all around the courtyard of a portico. This peristyle is found even with headquarters buildings where the length/width ratio is high, for instance the fort at Tibiscum¹⁵⁷⁰ therefore, its absence is odd.

Basilica. This part of the headquarters building is sized 19.50 × 8.00 m, with a 30% proportion in the area of the entire structure. In its case, the tribunal probably existed, however it was not identified due possibly to the removal of the walls stones, which are nonetheless of poor quality, specific to the fort at Râşnov as well. Entrance from the inner courtyard to the basilica measured 2.80 m, being therefore usual.

Back rooms. On both sides of the *aedes* there are two rooms of 7.00 × 3.30 m, subdivided into another two divisions. It was claimed that this compartmenting occurred in the building second phase¹⁵⁷¹, but in this case their early sizes would have been unusually high. It is therefore possible that they were partitioned from the start.

The strongroom occupies c. 4.00 × 3.30 m (13.20 m²) inner space, a relatively small area, considering that they averaged 25–30 m². A standard in terms of strongroom sizes is unlikely at the scale of the entire Roman Empire, hence no major differences are found between infantry and cavalry forts.

Subsequently, without knowing precisely when, the room would be attached an apse in the back. A smaller apse is attached in the back of the room south-east the *aedes*. It seems that all the rooms on this side were heated, as proven by *hypocaust* system prints found within them¹⁵⁷². The heating system could account for deeming the rooms or part of them *scholae*, especially the apsed one near the *aedes*.

¹⁵⁶⁶ Gudea 1997d, no. 42.

¹⁵⁶⁷ Stanciu 1985, 220.

¹⁵⁶⁸ For references see Johnson 1987, 128.

¹⁵⁶⁹ Gudea 1997d, no. 42.

¹⁵⁷⁰ Benea, Bona 1994, 45–6, Fig. 19.

¹⁵⁷¹ Gudea 1997d, 66.

¹⁵⁷² Gudea, Pop 1973, 56.

Behind the headquarters building, at c. 5.50 m of it, it is located a room originally considered to function as cistern, sized 4.25×4.25 , 1.75 m deep and provided with walls covered with mortar, 0.50 to 0.60 m thick¹⁵⁷³. Subsequently, its function would change, being added a 1.00 m wide entrance, the hole being filled up to the walking level¹⁵⁷⁴. This construction, alike that behind the headquarters building of the fort at Newcastle, could have functioned as *schola*¹⁵⁷⁵.

Praetorium

The commander's quarters was located on the right of the headquarters building, sized c. 24.00×16.00 m¹⁵⁷⁶, thus a total area of 384 m², stretching over c. 2.6% of the fort area. Although *praetoria* are usually square and sized c. 20×20 m, it is possible that this structure was the commander's quarters indeed. This may be also suggested by its position within the fort, however insofar only the building outer wall is known, without the slightest indication on its interior. On the structure chronology, we find out from the excavator it was built together with the south/east storehouse after AD 235¹⁵⁷⁷. Constructions most likely existed in this area prior this year, probably of same function, however unidentified because of incomplete excavation.

Horreum (?) ('Building C')

The construction discovered right the supposed commander's quarters was assigned the role of storehouse, although, only parts of the outer wall were identified also in this case¹⁵⁷⁸, and no buttresses that would ascertain such role were signalled. The dimensions of the structures are c. 20×10.50 m (210 m²) and the wall thickness is 1.20 m, wide enough to support a solid superstructure. However, the most recent plan rendered by N. Gudea shows that building C walls are much thicker compared to the walls of other buildings, even to those of *latus*. We cannot be sure if the plan thickening of the lines representing the building extremities does not somehow indicate it was entirely unveiled, therefore being insignificant and carelessly rendered. N. Gudea and I. Pop observed the wall had no foundation¹⁵⁷⁹, rather strange situation in view of wall width and cumbersome structure of the roof consisting of thick beams and tiles, thus the stress being high. Inside the building were found sherds, tiles, imbrices and bricks. Because this phase walking level was not identified is it possible that the wall foundation was not identified during diggings. When discussing technical details on walls or floors construction, the excavators regularly maintain that 'the walls are implanted in the ground, with wattle and daub prints' (probably of a previous phase) or in this case that 'the wall has no foundation, but is placed directly above the previous occupation layer'¹⁵⁸⁰. From constructional point of view, it is clear that the last statement is impossible, or, anyway, hard to imagine.

¹⁵⁷³ Gudea, Pop 1973, 56; Gudea, Pop 1975, 61.

¹⁵⁷⁴ Gudea, Pop 1973, 56.

¹⁵⁷⁵ Snape, Bidwell 2002, 268–9, fig. 4, 5.

¹⁵⁷⁶ Gudea 1997d, 66.

¹⁵⁷⁷ Gudea 1997d, 66.

¹⁵⁷⁸ Gudea 1997d, 66.

¹⁵⁷⁹ Gudea, Pop 1971, 37.

¹⁵⁸⁰ Gudea, Pop 1971, 30, 33, 37.

In 1943, subsequent the excavations of 1939, M. Macrea observed in the wall of this construction¹⁵⁸¹ two fragments, separated one from another, of a same inscription dated in the 3rd century AD¹⁵⁸².

The building from *latus sinistrum* has also a *horreum* layout, being sized, upon the fort plans, c. 24.75 × 11.80 m (292 m²)¹⁵⁸³. The walls are composed of boulders bound with mortar and are c. 1.20 m wide, therefore the building must have been quite high, and possibly even a storey was in place. The dimensions of buildings situated on both sides of the headquarters building seem close. However, the plan shows that the structure from *latus sinistrum* is almost half as wide as building C located in *latus dextrum*. It is also confusing that the excavators give information according to which, on the contrary, the building from *latus sinistrum* is wider by 1.30 m. If we measure the building width from the plan provided, we find that it is c. 7.00 m. In this case, such construction would have layout and proportions including of a *horreum*, unlikely the building from *latus dextrum*, which is much wider.

‘Building A’

A rectangular structure sized 13.80 × 10.50 (141.75 m²), occupying 0.97% of total fort surface, is located in *retentura*, near the southern corner, at 10.10 m from the south-east and 11.00 m from the south-west sides of the fort¹⁵⁸⁴. The depth of the foundation wall, built in the *opus incertum* technique, reaches 0.50 m in the north-west of the building and 0.70 in the opposite one¹⁵⁸⁵. The excavators argue that originally the building interior was divided into two parts each of 6.70 × 8.70 m, 5.32 × 8.70 m respectively, and that subsequently each area was partitioned in two divisions each of 5.32 × 4.90 m, 5.32 × 3.70 m, respectively 6.70 × 6.70 × 5.70 m and 3 m¹⁵⁸⁶. The main wall thickness is 0.70 m and 0.60 m for the subsequent ones¹⁵⁸⁷. Given the relatively large area of the two original rooms, I assume it is more likely that subdivisions were made very shortly after the building construction, as part of the initial design scheme, even if they are only adjacent to the main compartmenting wall and have no foundation¹⁵⁸⁸. In fact, such foundation was not required as the walls are not carriers. Because a series of *bipedalis* bricks (18.5 × 18.5 × 6 cm) and *opus signinum* were collected from the building inside, a heating system was supposed¹⁵⁸⁹.

¹⁵⁸¹ M. Macrea mentions the inscriptions were discovered ‘built-in the foundation of a large isolated building [named by the author of the discovery] (building B), located in the area between the south-east gate and the southern corner’, Macrea 1944, 235. The conventional signs made by M. Macrea and subsequently by N. Gudea and I. Pop are not uniform, building B being on the plans drafted by N. Gudea and I. Pop near the south-west gate, from *retentura dextra*, Gudea, Pop 1971, Fig. 2.

¹⁵⁸² Macrea 1944, 235.

¹⁵⁸³ Gudea, Pop 1973, 16.

¹⁵⁸⁴ Gudea, Pop 1971, 30, 32.

¹⁵⁸⁵ Gudea, Pop 1971, 30. Unfortunately it is not certain that the wall’s foundation depth is uneven, being possible that only the field from which depths were measured was or had been uneven. Due to the lack of professional level, archaeologists are often forced to set the upper part of the field as depths benchmark.

¹⁵⁸⁶ Gudea, Pop 1971, 32.

¹⁵⁸⁷ Gudea, Pop 1971, 30.

¹⁵⁸⁸ As with many timber buildings, cases when the outer walls technique is different from the inner compartmenting walls are frequent.

¹⁵⁸⁹ Gudea, Pop 1971, 32.

‘Building B’

Also in *retentura*, at 7 m west building A was identified the so-called ‘building B’, shaped as two connected rectangles provided with an apse by their southwestern ends¹⁵⁹⁰. The walls foundation is c. 0.60 m wide¹⁵⁹¹, while apse walls thickness is 0.40–0.60 m and of 0.80 m for the other walls. The long side of the shorter rectangle is of 7.55 m, the one of the longer rectangle is 10 m and width of the entire structure is almost 7.00 m, resulting in a total space of c. 40 m². The interior space is divided into four subdivisions (a, b, c, d) each 2.10 × 3.15 m, 2.10 × 2.80 m, 3.15 m and 3.25 × 3.25 × 5. 20 m¹⁵⁹². In the first three rooms were found traces of a *hypocaustum* system, and in the northwest wall of the room called *c* a 0.30 m wide breach, with compact traces of burning around, resulted from a kiln placed in the area. Therefore, since first research conducted by M. Macrea it was correctly assumed this structure functioned as *thermae*¹⁵⁹³. In the room without heating system, the floor consists of a thick mortar pavement of c. 15 cm. The archaeological material found inside and outside the building comprises ware fragments, many tiles and bricks and also water pipes.

It is possible that the two apses were cold or hot water pools. I do not know the function of the wall, rendered in plan, which practically exits from the northwestern corner of the building outwards¹⁵⁹⁴.

Cases of bathsuits inside auxiliary forts are rather rare, being always small, the majority considered late additions¹⁵⁹⁵.

‘Building D’

In *praetentura sinistra* of the fort at Râşnov was identified a building with rectangular layout, sized 10.30 × 7.80 m. This time as well, the building walls are 1.20 m wide, and again it is claimed that they had no foundation¹⁵⁹⁶, probably because the occupation level corresponding to this phase was not identified. Circumstances of the building interior are similar to other buildings in the fort, characterized by lack of compartments and the discovery of ware fragments, iron objects, tiles and imbrices. Its function remains unknown.

The structures in the central part of the fortification, except for the headquarters building, or the one from *praetentura sinistra*, have all granaries layouts, but only their interior structure could indicate function. For now, we have no data on the inside, whether there were pillars or small walls supporting the floor, so to be deemed granaries or whether they had a courtyard or central corridor to consider them *fabricae* or *praetoria*. The walls of all these buildings, 1.20 m wide, are thick enough to carry solid superstructures, even storeyed, but the discoveries of artifacts inside do not allow any clear differentiation. I specify that in the case of granaries, the walls width, in the case of Britannia for instance, varies between 0.70 and 1.20 m, in the area of maximum sizes a storey being supposed¹⁵⁹⁷. Any assignment based solely on sizes or sides’ ratio is superfluous.

¹⁵⁹⁰ Gudea, Pop 1971, 33.

¹⁵⁹¹ I mention that the actual depth of the walls foundation is difficult to appreciate, because it is usually computed by the excavators at Râşnov exactly precisely from where the layer previous the constructions was observed, phenomenon which is not always congruous with the reality.

¹⁵⁹² Gudea, Pop 1971, 37.

¹⁵⁹³ Macrea 1944, 235.

¹⁵⁹⁴ Gudea, Pop 1971, Fig. 33.

¹⁵⁹⁵ MacDonald 1934, 280, Fig. 36; Johnson 1987, 213–4; Dixon, Southern 1992, Fig. 63.

¹⁵⁹⁶ Gudea, Pop 1971, 41.

¹⁵⁹⁷ See some comparative measurements at Taylor 2000, 30–1, 59.

Hospital (?)

In *retentura sinistra* is reported a rectangular building with dimensions measured according to the plan of c. 25.00 × 13.00 m (325 m²). Unfortunately, we have no exact information on the scale or characteristics of this building, the only evidence of its existence being the plan rendered by N. Gudea in 1997¹⁵⁹⁸. The features of all the Râșnov constructions is preserved once again, the outer wall similar in thickness to the wall of C building from *latus dextrum* being partially known. Building dimensions are rather large, ranking, compared to the other buildings of the fort, between the *horreum* and the *praetorium* located in the fort central part, but its character must be, at least theoretically, different. Nearest sizes are those of building C, located in *latus dextrum*. The location itself of the building is also interesting, being placed somewhere by mid *retentura sinistra*, the northeastern limit, from *latus*, slightly exceeding the southwest line of the constructions in the central area.

Evidently, for lack of any other evidence, the assignment of this building to a hospital may be misleading, but any framing attempt should probably exclude their inclusion among soldiers' barracks. Upon location and monumentality, the only analogy available comes from the fort at Wallsend, whose *retentura* internal planning provides an image almost similar to that at Râșnov. Thus, exactly in the same position is located, at some point, a *valetudinarium* of a building type with central courtyard. Sizes of the building from Râșnov are somewhat smaller, but it is not certain that the whole area around the building was excavated. Therefore we can not be sure that the structure was not partitioned in some way. However, such sizes are somewhere by the area average covered by hospitals in other auxiliary forts of the Roman Empire. In addition, the structure unveiled at Râșnov, could have actually represented the courtyard stylobate, especially since neither these walls seem to have substantial foundation. The walls width is, alike the other buildings, relatively large therefore it would be suited only to a wall carrying columns. Or, in this case, the building total sized would be in this case too great.

Troop

Single record of the troop is represented by the honourific inscription discovered at Râșnov, firstly read by M. Macrea, its discoverer, as follows *coh(ors) VI no/[va C]umidavensi/[um] [[Ale]]x[[an]]dr[[ia]]nae*¹⁵⁹⁹. It is clear that governor Iasdius Domitianus mentioned therein ruled the three Dacia around AD 235¹⁶⁰⁰. In exchange, various views regarded the unit was as one of the *Vindelicorum*¹⁶⁰¹ II or III¹⁶⁰² troops. The supporters of M. Macrea's reading were more numerous¹⁶⁰³, although the probability that the troop was one of the *Vindelici* is high.

N. Gudea and I. Pop decided this troop, comprising locals¹⁶⁰⁴, was established once with Caracalla's visit, when *limes Transalutanus* was also created, the Râșnov fort from 'Bârsei

¹⁵⁹⁸ Gudea 1997d, No. 42.

¹⁵⁹⁹ Macrea 1944, 235 sqq.

¹⁶⁰⁰ Piso 1993, 192–6, nr. 42.

¹⁶⁰¹ A. Alföldy was the first who supported this identification, *apud* IDR III/4, 221.

¹⁶⁰² Piso 1979, 139–40. I. Piso maintains that the troop at Tibiscum is different from the one at Râșnov, considering that within inscription IDR III/1, 184, which he re-read, the troop from Tibiscum must have had an epithet attached to its name, which, however erased, could have come from a 3rd century emperor, hence the troop was still stationed at Tibiscum, Piso 1983, 111.

¹⁶⁰³ Daicovicu 1966, 169; Daicovicu 1978, 120–3; Bogdan-Cătănicu 1969, 479; Beneš 1978, 28–9.

¹⁶⁰⁴ Gudea, Pop 1971, 66. Same theory with C. C. Petolescu, Petolescu 2002, 101. Nevertheless, the term could have suggested only the garrison location and not the troop ethnical name, alike the case of many other troops, especially *numeri: Tibiscensium, Miciensium*, etc.

Contry' being an the extension of such *limes*¹⁶⁰⁵. C. C. Petolescu suggests this fort origin also dated once with Caracalla's visit, which is unlikely since numerous coins dated starting with the 1st—beginning of the 2nd centuries AD were found¹⁶⁰⁶. It is true however that several authors speak about an occupation discontinuity in the fort at Râșnov¹⁶⁰⁷. N. Gudea and I. Pop maintain that the earthen fortification of Râșnov was constructed under Trajan, while that of stone only from mid 2nd century AD¹⁶⁰⁸, without being able to substantiate such chronology by archaeological excavations.

66. ROMULA

In other part of same *limes Alutanus*, certain researchers distinguished two forts (pl. 36)¹⁶⁰⁹ near the urban settlement of Romula-Reșca. They were supposed here based on P. Polonic's sketch from the beginning of the 20th century¹⁶¹⁰ and less archaeological grounds. Since little is known, I. Bogdan-Cătănicu argues that such forts are doubtful and that P. Polonic's field observations represent the city precinct remade under Philip Arabs¹⁶¹¹. However, if the city enclosure surrounded only the proper city, then how Marsigli¹⁶¹² or Polonic could have distinguished the enclosure of other fortifications!? Therefore, it is possible that respective enclosure was a large wall erected by soldiers under Philip Arabs (CIL III 8031 = ILS 510)¹⁶¹³, which defended both city and neighbouring fort or forts. The almost 70 ha sizes of the enclosure interior and level differences, rather marked in certain areas¹⁶¹⁴, inside respective enclosure also support such theory. Thus, we believe that at least one fortification, quartering the troops bearing the title *Malvensium* and *Malvensis*, i.e. *numerus Syrorum* and *coh. I Flavia Brittonum milliaria* existed. The forts could have been located in the place named Biserica Veche, east of the city, and the second south-east of the city. The first is sized 100.00 × 100.00 m, the second being considered much larger¹⁶¹⁵. The units recorded by inscriptions, tile stamps and bricks are *legio XI Claudia, V Macedonica, XXII Primigenia pia fidelis Philippianorum* (IDR II 325), *VII Claudia* (IDR II 326, 8047), *cohors I Flavia Commagenorum* (IDR II 382) and *numerus Syrorum*. D. Tudor maintained he personally discovered a brick stamped *N(umerus) S(yrorum)*¹⁶¹⁶ in 'The Old Church' area, the fortlet location, therefore, this troop could have been camped there as well. Last two mentioned legions participate in construction works under Philip Arabs¹⁶¹⁷.

¹⁶⁰⁵ Gudea, Pop 1971, 60–1, 63.

¹⁶⁰⁶ Petolescu 2002, 101.

¹⁶⁰⁷ Gudea, Pop 1971, n. 41; Bogdan-Cătănicu 1969, 480.

¹⁶⁰⁸ Gudea, Pop 1971, 63.

¹⁶⁰⁹ For interpretation and bibliography see Tudor 1978, 176–97, fig. 42.

¹⁶¹⁰ Tudor 1978, 194; Gudea 1997d, 85.

¹⁶¹¹ Bogdan-Cătănicu 1997, 64–5. Archaeological excavations in the indicated forts area have not been performed, therefore there are insufficient arguments to doubt topographer P. Polonic's sketches, whose plans were always accurate.

¹⁶¹² The plan and short description of Marsigli who identifies here 'several forts' is found also in Tudor 1978, 177, Fig. 41. Gr.G. Tocilescu also states that one can see 'stone fortifications... [they having]... an up to 2 m high profile, 1.50 m deep ditch in front and 2 m thick walls (*apud* Tudor 1978, 184).

¹⁶¹³ Tudor 1978, 184. The mentioned inscription does not expressly specify that the city was surrounded by a wall, but only that ...*circuitum muri manu militari a solo facerunt*.

¹⁶¹⁴ Tudor 1978, 176, Fig. 42.

¹⁶¹⁵ Tudor 1978, 297, Fig. 42.

¹⁶¹⁶ Tudor 1978, 297.

¹⁶¹⁷ Tudor 1978, 188.

Although sketches might have been wrongfully interpreted, the stamps mentioning such troops would theoretically indicate a fort or the fact that certain troops were quartered inside the city, which is unlikely in this part of the Roman Empire¹⁶¹⁸.

The troops' succession is, according to D. Tudor, as follows: *coh. I Flavia Commagenorum*¹⁶¹⁹, then *numerus Syrorum* the latter being present here until AD 248¹⁶²⁰. Nonetheless, the *numerus* seems to have been transferred in Mauretania as early as the beginning of the 3rd century¹⁶²¹. *Coh. I Flavia Brittonum Malvensis* is one of the troops which might have replaced it, if indeed the title *Malvensis* also derived from the city name¹⁶²².

67. ROȘIORII DE VEDE

The fort is placed south-east the city, on the 'Urluiu' plateau and is sized c. 51.00 × 50.00 m¹⁶²³. An earthen rampart surrounded by a 7–10 m wide ditch were noticed.

68. At RUCĂR, opposite to the fort at Comalău, by the north exit from Bran pass, a small fortification sized 53.80 × 30.00 m (0.18 ha) was found. Archaeological digs were performed by I. Bogdan-Cătănicu, leading to the identification of a 5.10 m wide earthen rampart and two 4.90 × 1.25, respectively 4.90 × 1.40 defence ditches on the southern side¹⁶²⁴.

Via sagularis is 1.00 m wide. Single examined gate, made of wooden posts¹⁶²⁵ was set on the southern side.

Barracks

I. Bogdan-Cătănicu identified based on timber post holes, two 14.50 m long barracks, each comprising four *contubernia*¹⁶²⁶. For lack of other data, I cannot be sure such function is correct, especially since their sizes would be completely unusual¹⁶²⁷, however they might be directly proportional to the very small sizes of the fortification. D. Tudor supposes the fortification was destroyed in AD 117–8 as proven by fire traces inside and the fact that *limes transalutan* was west the fortification¹⁶²⁸.

Troop

Tile stamps were initially discovered in the baths, located at 150 m from the fort¹⁶²⁹, and in the interval tower area, recording *coh. II Flavia Bessorum* (IDR II 607). It was considered that a troop detachment stationed in this fortification in an early period, when the troop could have been camped at Stolniceni¹⁶³⁰.

¹⁶¹⁸ Speidel 1973, 174.

¹⁶¹⁹ For records on this troop see Marcu 2004, 577.

¹⁶²⁰ Tudor 1978, 194.

¹⁶²¹ Speidel 1973, *passim*.

¹⁶²² Information I. Piso.

¹⁶²³ Tudor 1978, 297, Fig. 76/2

¹⁶²⁴ Bogdan-Cătănicu 1974.

¹⁶²⁵ Bogdan-Cătănicu 1997, 46.

¹⁶²⁶ Bogdan-Cătănicu 1997, 47.

¹⁶²⁷ The barracks length in the so-called 'fortlets' varies, being of c. 25 m, see Davison 1989, 128.

¹⁶²⁸ Tudor 1978, 298.

¹⁶²⁹ These baths were initially considered constructions within the fort, Tudor 1955, 90 sqq.

¹⁶³⁰ Bogdan-Cătănicu 1997, 46, Fig. 81.

69. SÂMBOTIN (*Castra Traiana*)

D. Tudor, H. Nubar and P. Purcărescu carried out digs in 1966–1969, while C. M. Vlădescu and Gh. Poenaru Bordea investigated the area between 1983–1985¹⁶³¹. It was presumed to date under Hadrian, repaired by mid 2nd century AD, thus evidencing two phases, one of stone and a previous of timber. Nonetheless, there is no proof that this fortification was not erected earlier. The wall is 1.50 m thick and is double. The distance between the two parallel walls is of c. 2.70–3.00 m¹⁶³². It is interesting that between the two paraments connection walls were set, perpendicular on the first¹⁶³³, who were designed, I believe, not for supporting the *agger*, but for delimiting spaces for various activities. Or, the single room having such functionality was considered to be the one located at 3.00 m from the enclosure northern end¹⁶³⁴. The walls are 0.70 m thick, these spaces being made subsequent the erection of the fort outer enclosure, since a consistent occupation layer was uncovered under the inner wall¹⁶³⁵. Therefore, no elements prove this fort existed only from under Hadrian.

Two ditches were identified in front of this enclosure.

Alike other fortlets (?)¹⁶³⁶ from *limes Alutanus*, it is assumed to be a fortification designed for a *numerus*, although fort sizes are unknown and the single discovered stamp records *coh. I Hispanorum*, thus probably indicating the troop inside the fort¹⁶³⁷.

70. SĂPATA DE JOS

On the same frontier, southwards, other two neighbouring forts, placed at 35 m distance one from the other (pl. 39), were identified at Săpata de Jos. The large fort, whose enclosure was made on a sill brick wall measures c. 125.00 × 90.00 m, while the second, comprising an earthen and timber enclosure, was only 35.00 × 45.00 m¹⁶³⁸. Certain authors attempted to prove the simultaneous existence of the two forts based on a common defence ditch¹⁶³⁹. In addition, we learnt that in general, the material of choice for the buildings construction inside both forts was the brick¹⁶⁴⁰. Since forts sizes were very small, I should agree that ‘understrenght’ troops were garrisoned there. The brick enclosure is made, alike at Ioneștii Govorii and Acidava (Enoșești), on a base consisting of battered earth mixed with sand, pebble, crushed brick, gluey clay and lime lumps¹⁶⁴¹.

Other elements for the establishment of a chronology are the two coin hoards discovered one inside and the other, in the large fort vicinity. Coins of the first hoard date AD 205–248, while those of the second spread starting with Trajan to Valentinian. Other isolated finds are represented by a few coins dated under Commodus. Except for these

¹⁶³¹ See Avram, Petolescu 1997, 187, Fig. 2.

¹⁶³² It was considered that the two walls functioned as *agger* carriers, Vlădescu 1986, 44.

¹⁶³³ Vlădescu 1986, Fig. 30.

¹⁶³⁴ Vlădescu 1986, 44.

¹⁶³⁵ Vlădescu 1986, 45.

¹⁶³⁶ The single side partially preserved is sized 69.60 m, Gudea 1997, 90.

¹⁶³⁷ Avram, Avăsiloaie 1995, 193–5.

¹⁶³⁸ Christescu 1936, 435–447.

¹⁶³⁹ Upon the examination of an aerial photo, I. Bogdan-Cătănicu doubted this possibility, Bogdan-Cătănicu 1997, 95, n. 17.

¹⁶⁴⁰ Stone and timber were probably rare in this part of Dacia Inferior, while good quality clay for bricks was abundant.

¹⁶⁴¹ After Tudor 1940, 35.

numismatic finds, a brooch with the inscription ROMA dated by the end of the 2nd or beginning of the 3rd centuries AD was also identified¹⁶⁴².

71. SLĂVENI

Archaeological digs at Slăveni¹⁶⁴³, a fort located at 15 km south Romula, were initiated as early as the 19th century by Gr. G. Tocilescu and P. Polonic¹⁶⁴⁴. They were resumed starting with 1962 and furthered until 1975 by a team led by D. Tudor¹⁶⁴⁵.

The enclosure two phases, identified by D. Tudor, were one of timber and one of bricks, erected under Trajan, respectively Septimius Severus, revetted under Philip Arabs¹⁶⁴⁶. However, inscription (CIL III 13800 = IDR II 496) discovered by Gr. G. Tocilescu in gate *praetoria* area only proves that *ala I Hispanorum* erected something inside the fort [*a funda*]*m[entis]* probably *porta praetoria* which, was indeed different from the other gates.

The defensive system of the earthen fort comprises a single defence ditch and an earthen rampart. Sizes of this enclosure are of 190.40 × 169 m (pl. 37). It is very interesting that the 1.10 m wide patrol road still preserved on the rampart top, being made of bricks placed directly into the ground¹⁶⁴⁷. Another earthen rampart and a considerably sized ditch of 4.00, respectively 4.20 m existed in front the defence ditch¹⁶⁴⁸. Both ditches were interrupted in front of the gates.

It was considered that under Septimius Severus the earthen enclosure was rebuilt in stone (?)¹⁶⁴⁹, having 1.50 m wide walls¹⁶⁵⁰. The two ditches preserved from the first phase corresponded to this enclosure, while a third was also attached. The fact that the third ditch, separated from the previous by an earthen rampart, was not interrupted in front of the gates is interesting¹⁶⁵¹.

The stone enclosure was double, an additional brick wall of 0.60 m thickness being added at 6.00 m distance inwards. This double enclosure was sized 198.00 × 176.60 m. Following the discovery of an inscription dedicated to Philip Arabs, preserving the emperor's name, D. Tudor considers that the fortification was abandoned by mid 3rd century AD, once with Eastern invasions¹⁶⁵².

Initially, gates *praetoria* and *decumana* were partially excavated, yet subsequently entirely researched by Gr. G. Tocilescu and D. Tudor, the first having a double entrance of c. 6.00 m span¹⁶⁵³. The other gates are identical with *porta praetoria*, each lobby having c. 3.10–3.50 m spans. Nonetheless, the roads width is impressive, the one crossing through *porta*

¹⁶⁴² Christescu 1936, 445–6, Fig. 13/2.

¹⁶⁴³ For almost complete bibliography on this fort see Gudea 1997d, 85.

¹⁶⁴⁴ Excavation sketches and notes were published by Gr. G. Tocilescu in Romanian Academy Annuary, tome XVIII, 100–1 and D. Tudor, Tudor 1940, 34–8.

¹⁶⁴⁵ Tudor 1978, 302–7.

¹⁶⁴⁶ Tudor 1978, 302.

¹⁶⁴⁷ Tudor 1978, 302.

¹⁶⁴⁸ Tudor 1978, 302.

¹⁶⁴⁹ It is not certain that the inscription dedicated by *ala I Hispanorum* confirms the enclosure erection [*a funda*]*m[entis]* (IDR II 496), the construction or reconstruction of any building inside the fort being possible.

¹⁶⁵⁰ Tudor 1978, 302.

¹⁶⁵¹ Tudor 1978, 302.

¹⁶⁵² Plus a coin hoard, ending with a coin from Philip Arabs discovered in a barrack, Tudor 1978, 307. This theory is rightfully disputed by I. I. Russu (IDR II, p. 197).

¹⁶⁵³ Tudor 1978, 303.

praetoria being 16.20 m wide, with a side portico of 1.50 m deep. This road was paved with stone fragments, boulders (slabs?) and brick fragments¹⁶⁵⁴. By analogy with the fort at Drobeta, where sculptures were identified in the area of main roads porticoes, one may suppose that the Slăveni porticoes also sheltered statues. *Via principalis* was 24.00 m wide, yet had no pavement¹⁶⁵⁵. *Via decumana* and *via quintana* were 14.20, respectively 13.00 m wide, only the first being paved. As gates span are not uncommon, the sizes of the roads must evidently be related to the effective planning logics of the fort interior, which was undoubtedly reported firstly to the fortification garrison troop. Thus, we should wonder why the roads are different one from the other. Thus, largest free spaces remain in *via principalis* and *via quintana* areas, which are also left unpaved¹⁶⁵⁶. Moreover, between *via quintana* and *via principalis* good part of *latus dextrum* seems to have been left barren¹⁶⁵⁷. Under such circumstances, Slăveni fort specificity, where stables were approximately located in fort corners, is confirmed by the roads arrangement, access and horse traffic being evidently made on *via quintana*, *via principalis* and *via sagularis*. Besides, it is obvious that spaces free of constructions are explained only by their use as areas for taking horses outdoors, ideal to this purpose being *via quintana* and *via sagularis*, having no traffic as gates by their ends were inexistent. The requirement of horse and horsemen training was not less important. Or, a marble plate fragment (IDR II 499) was discovered inside the fort, possibly confirming that *ala I Hispanorum* erected a *basilica* by the beginning of the 3rd century AD, probably one for training¹⁶⁵⁸. The so-called ‘Exerzierhalle’ is specific especially to other forts on the continent, in Britannia being identified only a few, in the forts at Brecon Gaer, Rudchester, Haltonchester, Newstead and Wallsend. The structure is located almost always in front of the headquarters building, covering part of *via principalis*¹⁶⁵⁹. This structure is signalled in the forts garrisoning cavalry troops or those also comprising horsemen, being a large hall of c. 45.00 × 10.00 m, with gable roof. At Slăveni, the best location for this *basilica exercitatoria* was *via principalis* which, as mentioned, is impressive and ‘unpaved’. As such, it was suitable for training. The single problem would be precisely the main road width, a 25 m long hall being difficult to cover. Thus, if this construction would have been placed in this area, either was not as wide as *via*, or comprised several aisles, the roof issue being thus solved. The single very clear example of basilica with two side aisles is found in the fort at Birdoswald, where the building was positioned in the fort *praetentura*¹⁶⁶⁰.

M. Hassall states that the fortification at Slăveni, due to its impressive sizes, could be considered a fort-type for *ala milliaria*¹⁶⁶¹, however he is contradicted by D. P. Davison with accurate arguments (see *infra*). The very large width of all main roads contributes obviously to the fort very large sizes. Therefore, they do not mirror the internal buildings capacity.

¹⁶⁵⁴ Tudor 1978, 304.

¹⁶⁵⁵ The excavator maintains *via principalis* was covered with cribwork, Tudor 1978, 304.

¹⁶⁵⁶ I am not certain on what D. Tudor meant by the word ‘unpaved’, however we suppose it refers to very fine pebble or only battered soil.

¹⁶⁵⁷ This situation seems confusing, hence I believe that: either the excavations did not consider good part of the area, or the buildings were of timber, hence difficult to observe. If the small building from *latus dextrum* dates from an early phase (Tudor 1978, 306), I should agree that this fort part was entirely free of constructions.

¹⁶⁵⁸ For minimal bibliography and analogies from Dacia, see IDR II, p. 199–200 and Tudor 1974.

¹⁶⁵⁹ Johnson 1987, 140–6; Dixon, Southern 1992, 220–3; Taylor 2000, 29.

¹⁶⁶⁰ Wilmott 1997, 582, 584.

¹⁶⁶¹ On the other hand, same author considered D. Tudor’s layout restoration hypothetical, Hassall 1983, 105.

Principia

Headquarters building walls are made of bricks placed on a 0.95–1.00 m thick stone base. It was sized 43.20 × 37.40 m (1615 m²), occupying 4.6% of the fort surface. This percentage is customary for cohort forts, however, for instance, *ala* forts from Britannia comprise headquarters buildings covering average 6% of the fort surface¹⁶⁶². I believe that the smaller proportion of the *principia* at Slăveni, although sizes are impressive, is due to the very large width of the roads.

The main entrance has a 4.40 m span being flanked by three rooms on each side, forming a long hallway of c. 5.00 m. The common width of these rooms is 5.00 m, while their lengths are 2.25 m, 2.25 m, respectively 7.00 m for the rooms by the ends. These rooms together with those north and south the courtyard must have been covered. Therefore, alike within many other similar forts, a roof over the entrance was required. Considering that in general, entrances into *principia* are of c. 2.50 m, an entrance like the one in the fort at Slăveni would have undoubtedly been provided with something more monumental than a breach in the wall and a hallway along the rooms, whose traces were not identified in excavation.

Courtyard. The sizes of the front courtyard are of 16.40 × 28.50 m (467.40 m²), with 1.74 sides ratio, covering c. 28% from the headquarters building total surface. Thus, both its proportion and sizes are typical, although it seems slightly extended. A brick pavement lied on the entire surface of the courtyard. On the right, two bases sized 2.80 × 2.08 m, were placed and they were probably designed for equestrian statues¹⁶⁶³. On three of the courtyard sides, excluding the one from *basilica*, a series of rooms sized 4.00–2.00–2.50–2.50–5.00 m were identified. I am not sure on their function, however, considering their surfaces, they were probably used as offices¹⁶⁶⁴. The single extremely unclear indication coming from this area is that several arms were found¹⁶⁶⁵, thus bearing out that at least part of the compartments were store rooms, although *armamentaria* deposited ammunition and not weaponry. In their front, a portico formed of 93 cm wide, 52 cm pillar diameter and 50 cm tall limestone columns was set¹⁶⁶⁶. The portico was 3.10 m wide. Although all sizes of the *principia* are usual, the portico is rather narrow compared to, for instance, other forts from Britannia. In this province the normal width of a portico measures 4.00–5.00 m¹⁶⁶⁷. According to D. J. A. Taylor, at Chester where part of the portico was at some point narrowed from 6.00 m to 3.50 m, such change was required for roof heightening. The scholar wondered if it was or not the result of allowing access to *principia* of a mounted individual¹⁶⁶⁸. If the reason was the roof heightening or the courtyard broadening, it might have also happened in order to place equestrian statues. Roof heightening is also proven by column bases sizes, able to carry higher columns.

Concerning the courtyard, the mirror construction or only reconstruction of the rooms flanking the entrance, respectively the courtyard is striking.

¹⁶⁶² Thus, at Halton Chester, Chesters and Benwell *principia* occupies 7.1%; 6.27% respectively 5.4%.

¹⁶⁶³ Tudor 1978, 306.

¹⁶⁶⁴ The function of offices is confirmed by the discovery, inside the rooms neighbouring the courtyard from other fort, of altars dedicated by *custodes armorum* or *curator operis armamentarii*, see Johnson 1987, 128 with bibliography.

¹⁶⁶⁵ Tudor 1978, 307.

¹⁶⁶⁶ Tudor 1940, 35.

¹⁶⁶⁷ Taylor 2000, 141, Table 4.

¹⁶⁶⁸ Taylor 2000, 27.

It is hard to specify the function of the rooms around the courtyard, but those of slightly over 2.00 m widths were more suitable to offices or small storages. The rest could have functioned as store rooms, although they are usually constructed as halls, without partitioning.

Basilica. Passage from the front courtyard to *basilica* was direct. In this area, instead of a portico there were identified only prints of column bases suggesting at least passage arches between these two structures. *Basilica* has impressive sizes of 35.40 × 9.00 (318.6 m²), thus stretching over 19% of the headquarters building total surface. Alike other cases in Dacia, the tribunal was not discovered at Slăveni either, probably due to its poor quality walls or because it was seldom made of timber¹⁶⁶⁹.

Back rooms. An apsed *aedes* was located west of the *basilica*, flanked by three rooms on the northern side and two compartments on the southern side. The sizes of the rooms on both sides of the stongroom are not similar also because the central room axis is slightly displaced southwards, compared to the entrance into *principia*¹⁶⁷⁰. That is the reason why several compartments are set in the northern part of the central room. *Aedes* is impressively sized, over 10.00 × 10.00 m, having in the back a 5.60 m radius apse. Its floor was paved with large bricks. Even more interesting are the sizes of the rectangular room sized 3.95 × 3.25 m (12.83 m²) discovered under the *aedes*, its floor being at 1.80 deep compared to the other compartments¹⁶⁷¹. Often, under such rooms a c. 1 m² pit could be placed in order to secure a chest. The surface of the room from Slăveni is similar to those in the forts at South Shields and Maryport (Britannia) whose sizes are 4.40 × 3.80 m (16.72 m²), respectively 3.66 × 3.20 m (11.71 m²)¹⁶⁷². Or, the sizes of similar rooms from forts in Britannia are, in other 18 cases, between 3.24 m²–8.41 m², with a common average of 5 m²¹⁶⁷³. Therefore, in the forts at South Shields and Maryport the existence of large ‘strong-rooms’ is explained by the character itself of these forts, further proven by other details. They functioned as supply bases and the unusual sizes of the rooms where troop income was preserved prove large transit money necessary, for Britannia forts, during Septimius Severus campaigns¹⁶⁷⁴. Consequently, we should wonder if and when the fortification at Slăveni could have fulfilled a similar function. These underground rooms could be a *terminus post quem* as they are specific to the Severan period¹⁶⁷⁵.

The position of the fort at Slăveni indicates a similar function to the forts in Britannia.

The single heated room was positioned in the southern corner, it also being the largest.

Praetorium

North-west the headquarters building (fig. 38), in *latus sinistrum*, a brick building sized 19.50 × 36.00 m was unearthed¹⁶⁷⁶. Due to its position, its front is aligned to the store house north of it, while a c. 5.00–7.00 m free space was preserved in the case of both constructions. This space and the one between *principia* and the building north of it, of additional 10.00 m, are probably left empty in order to create a buffer-area between a

¹⁶⁶⁹ This is the case of the headquarters buildings from Newcastle and South Shields, which, although are stone made have timber tribunals, AA 5, 31, 2002, 30; Bidwell, Speak 1994, 82, figs. 3.27, 3.33.

¹⁶⁷⁰ At least this ensues from the fort plan, see Tudor 1978, Fig. 87.

¹⁶⁷¹ Tudor 1978, 306.

¹⁶⁷² Bidwell, Speak 1994, Table 3.2.

¹⁶⁷³ Bidwell, Speak 1994, 81, Table 3.2.

¹⁶⁷⁴ Bidwell, Speak 1994, 81.

¹⁶⁷⁵ Johnson 1987, 136.

¹⁶⁷⁶ The building was identified with the officers’ quarters (sic!), Tudor 1978, 306.

residence building and the rest of constructions. The building has a first courtyard or hallway of c. 21.00 × 7.00 m and a second of c. 9.00 × 11.00¹⁶⁷⁷. A series of rooms flank these open spaces, thus being similar to a civil house.

Although the *praetorium* has no classical layout, at miniature scale and with slight differences it resembles Mediterranean-type houses divided into two sectors: *atrium* and *peristylum*. Principally in our case, a proper *tablinium*, which in fact was also designed for access and the colonnade proper to the second courtyard are missing. Thus, due to its planimetry and position, covering 2% of the fort total surface, it might have been used by the troop commander. On the other hand, alike elsewhere, rooms flanking the corridor or those bordering the second courtyard are identically sized, being positioned in mirror. Hence, the layout is unusual for commander's quarters, whose features are precisely the differently sized rooms, according to their own function: bedroom, dining room, kitchen, stable, latrine, etc., while the commander's building must have been located in other part of the fort.

Neither its proportion is adequate, it usually framing between 3–3.50%, being similar to that of the atypical layout building, deemed *praetorium*, from the central part of the fort at Bologna.

In the area of this *praetorium* several (?) tiles sized 57 × 37 cm bearing the retrograde stamp CIB (IDR II 527) were found¹⁶⁷⁸.

Horreum

In *latus sinistrum* still, behind *praetorium*, is positioned the classical layout store house, sized 14.00 × 35.20 m (497.00 m²) and with 2.5 length/width ratio of the sides. External buttresses were identified on three of the sides, being eight on long sides—perfectly symmetrical, and three on the short side in the back. The building was this time stone made, for better resilience. The construction is slightly withdrawn from *via principalis*, in order to design space for manouevering goods. In fact, a staircase leading to the loading platform typical for each store house would be provided there¹⁶⁷⁹. The building covers 1.4% of the fort total surface, common percentage comparative to other forts of the Empire. It is interesting that supporting walls or floor pillars and vent holes are missing. As mentioned, the heightened floor was rarely replaced by another lied directly on the ground, yet it had to be waterproof, hence very thick, which is not the case here. Therefore, lacking supporting poles are the result of archaeological digs which, alike other forts from Dacia, did not identify such elements probably because the area was disturbed by stone hunters.

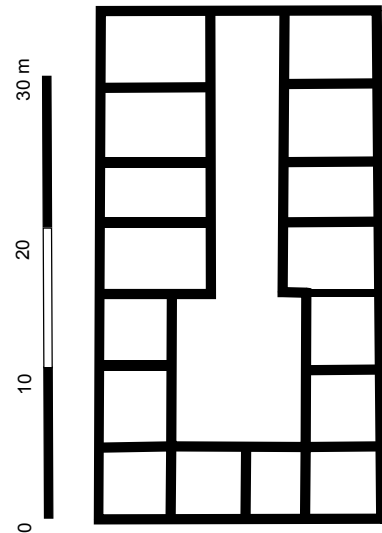


Fig. 38

¹⁶⁷⁷ Courtyard sizes were measured according to the plan provided by Tudor 1978, Fig. 87, sizes of the rooms mentioned by the excavator being entirely imprecise, Tudor 1978, 306. In the case of the rooms of the first courtyard they are around 5.50 × 4.50 m and 4.20 × 3.50 m, respectively 4.20 × 6 m for those around the second courtyard. However the plan clearly indicates that the first rooms are the largest and cannot be 4.20 m wide, as they would be narrower than those in the back, compared to the situation rendered by the graphical representation.

¹⁶⁷⁸ For interpretation of these stamps see Isac, Marcu 1997, 588.

¹⁶⁷⁹ Rickman 1971, 233, Fig. 39, 41; Gentry 1976, Fig. 9, 10, 11, 13, 14; Taylor 2000, 32. The loading platform was necessary also for timber granaries, being supported by posts, see Manning 1975, 113.

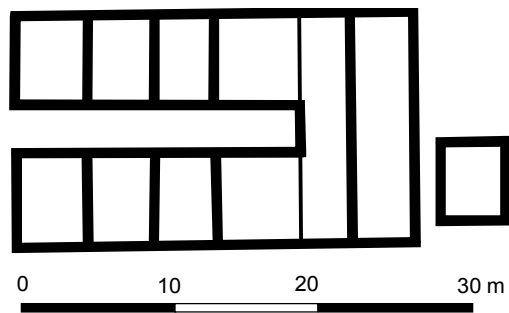


Fig. 39

Another building (fig. 39) was identified in *latus dextrum*, at 21.80 m south *principia*, sized 18.00 × 22.00 m (396 m²), divided longitudinally in three parts¹⁶⁸⁰. Or, the fort restoration provided by the excavator¹⁶⁸¹ shown a much more oblong building than sizes indicate, with a long and short sides' ratio of 1:2 and approximate sizes of c. 27.00 × 13.00 m.

The central compartment seems to be an unpartitioned central lobby flanked by four rooms on its long sides. In the back, the structure ends with two oblong compartments set transversally and adjoined along their length. The construction orientation is parallel to *via principalis*, reversed to the other buildings in the centre and was regarded, for this reason, as belonging to the earthen enclosure fort dated prior AD 205¹⁶⁸². However, a similarly sized and placed building was found in the fort at Aalen. There, the structure was 27.30 × 12.00 m, divided into eight rooms, of which one was heated by *hypocaust*, yet without central corridor¹⁶⁸³. Based on its planimetry and location, it could have functioned as *fabrica*, hospital¹⁶⁸⁴, *praetorium* or *schola*. I am not familiar with the archaeological material found inside this construction, however a few elements make me believe it was a workshop. Inside one of the rooms, a shaft was identified to whose outlet a *tubuli* pipe was directed. Such wells are hardly interior components of a Roman building, being usually associated to metallurgical activities. Moreover, another water tank sized 2.00 × 2.40 m, surrounded by a 3.90 × 4.55 m wall was identified in the south-east outer corner.

Nonetheless, water sources are also specific to hospitals. The structure might have been a hospital as proven by its good resemblance with a timber building from Strageath¹⁶⁸⁵. At Strageath, rooms seem compartmented. Moreover, cisterns, water tanks or wells are frequent with hospitals due to the constant need of fresh water. At Caerleon, for instance, two water tanks were erected in the hospital courtyard and other two inside the building: rainwater was prescribed for certain recipies and represented, according to Celsus, the best drink for the disabled¹⁶⁸⁶. Hence, M. Hassall, without knowing the analogy at Strageath or the requirement of fresh water inside the hospitals, could be right. A large cistern was also found near the building at Strageath. The structure from Strageath is not necessarily a hospital either, as its position between *principia* and a supposed *fabrica* is entirely uncommon, being a rather noisy area. A similar plan with the constructions at Slăveni and Strageath is found at Corbridge, where it was interpreted as store house¹⁶⁸⁷. Building B at Corbridge also dates from the first phase of the fort (AD 86–103; AD 103–105) and is set in *latus sinistrum* between a *horreum* and *principia*. The difference between the structures from Strageath-Slăveni and Corbridge consists, in the latter case, in the lack of two transversal rooms, on the short side

¹⁶⁸⁰ These are the sizes provided by Tudor 1978, 306; Vlădescu 1986, 33 or Gudea 1997d, no. 69.

¹⁶⁸¹ Tudor 1978, Fig. 87.

¹⁶⁸² Tudor 1978, 306.

¹⁶⁸³ The building is considered to have functioned as living quarters, Filtzinger, Planck, Cämmerer 1976, 201, Abb. 48.

¹⁶⁸⁴ M. Hassall assigned thus function, Hassall 1983, 105.

¹⁶⁸⁵ The building is U-shaped, 13.72 × 20.73 m, Frere, Wilkes 1989, 52, Fig. 28.

¹⁶⁸⁶ Celsus, *De Medicina*, II 18, 11–3.

¹⁶⁸⁷ Bishop, Dore 1988, 128.

opposite the entrance being a single partition. The excavators claimed it more likely functioned as store house, resembling with the store house or workshop layouts from Red House¹⁶⁸⁸. Nevertheless, in the hospital at Künzig, where groups of two rooms are divided by corridors, the layout being typical for a hospital, a room which does not stretch along the entire width of the building was located on the short side opposite the entrance¹⁶⁸⁹.

Consequently, in this case the building layout does not certify the structure's functionality. U-shaped buildings were deemed, upon finds inside or for that matter, their lack, as dwelling structures, store houses, workshops or hospitals.

Barracks

The six buildings from *praetentura sinistra* and *dextra*, three on each side and the three structures from *retentura sinistra*, all oriented *per scamna* were considered barracks. Their sizes are c. 43.00 × 9.40 m, with a 3.00 m wide verandah in front of each barrack¹⁶⁹⁰. The c. 0.50 m wide walls foundations consisted of bricks bound with mortar placed on a pebble layer¹⁶⁹¹. The structures were catalogued equal in size, although in detail, they differ in plan. Officers' quarters are placed by the end of the barracks from *via sagularis*, in this case towards other buildings, probably stables, placed along *via sagularis*. The decurions quarters are projecting outwards to the verandah line with two barracks placed close to *porta praetoria*, with those from *praetentura sinistra* and *dextra* and the ones placed along *via quintana* from *retentura*. Such rooms, which are in plan the single compartmented, measure c. 8.50 × 12.60 m (107.10 m²)¹⁶⁹². Other decurion rooms, which are not outwards projecting, must have been sized around 6.50 × 12.60 m (80.64 m²), subtracting the portico 3.00 m width. Hence, their proportion was of 26%, respectively 19% of the entire barracks surface. Planimetry differences are constant within Romans forts and there are only a few cases when barracks are identical. Nonetheless, the officers' quarters proportion in the barracks from Slăveni, especially with the eight where they are not outwards projecting is rather small.

Contubernia were paved with bricks, being compartmented in two equal spaces (?) of c. 3.20 × 3.00 m (9.60 m²)¹⁶⁹³. The compartmenting walls of the barracks were probably timber-made, with 42.00 × 28.00 × 6.00 cm foundation formed of a row of bricks¹⁶⁹⁴. Each barrack was divided into seven *contubernia* and had, by the ends opposite the officers' room, narrower divisions than proper *contubernia*, probably of c. 2.00 m. Although barracks are

¹⁶⁸⁸ Several traces of metal working were identified in the building vicinity, Bishop, Dore 1988, 128; Johnson 1987, 185.

¹⁶⁸⁹ Schönberger 1975, 53.

¹⁶⁹⁰ Tudor 1978, 306.

¹⁶⁹¹ At two phases interval, D. Tudor provides for the foundations two different sizes, once of 0.45 and then 0.60 m, Tudor 1978, 306. I do not see why D. Tudor maintained that a storey existed (Tudor 1978, 306), the walls or their foundations being rather narrow.

¹⁶⁹² Sizes given by D. Tudor as corresponding to all officers' quarters are of 8.00 × 12.60, Tudor 1978, 306. This would probably be the case of the barracks rooms close to gate *praetoria* and *via quintana*, where the officers' quarters are outwards projecting, subtracting the brick walls width of approximately 0.50 m. Even so, their width should have been between 8.50 and 9.00 m, since the length of the entire barracks is of 9.40 m.

¹⁶⁹³ The excavator maintains again that *papiliones* and *arma* are equal, however he decides the contrary within the following phrase when referring to the barracks from *praetentura*, Tudor 1978, 306. Thus, sizes given here are approximate, following the examination of the fort plan, although we cannot exclude it too was erroneous.

¹⁶⁹⁴ Tudor 1978, 306.

rather large, such sizes are found in *ala* forts¹⁶⁹⁵. The similarity between *praetentura dextra* and *sinistra*, respectively *retentura sinistra* and *dextra* is striking, the buildings being practically in mirror¹⁶⁹⁶. Or, cases when the internal planning of *praetentura* is perfectly identical on both sides of *via praetoria*, are few.

Size differences between the rooms by barracks ends and those inside may be noticed to several barracks¹⁶⁹⁷. Their width seems to be c. 2.50 m, those in the barracks from *praetentura* being even compartmented by a transversal wall, dividing the space in two unequal parts, the smallest being of at most 2.50 × 2.50 m. Moreover, since there is no information recorded on such special *contubernia*, the plan shows that with same barracks, such rooms seem to be separated from proper *contubernia* by a lobby. It is very hard to imagine this space could have functioned as storage and even less for metallurgical or household activities. Therefore, it might have been used as latrina, hallway or staircase base for access to a storey. In many forts of the Empire, the latrine is set in the opposite end to the officers' quarters, therefore such function seems logical at Slăveni. Latrines may be especially identified by commonly sized, c. 0.50 × 5.00–7.00 m pits or they could be placed inside small compartments like those in the barracks of Slăveni fort¹⁶⁹⁸. The only hindrance in deeming these spaces latrines is D. Tudor's statement referring to the floors of the barracks and the area between them, according to which 'the interior and space between them was paved with bricks...'¹⁶⁹⁹. Consequently, if including these compartments by the barracks ends were paved, it is hard to believe they functioned as latrines. However, if the information provided by the excavator is correct, we would expect that all barracks from *praetentura* and *retentura* would have been paved with bricks, which is unlikely.

Evidently, these special *contubernia* by the barracks ends could have provided access to barracks storeys. Within the specialty literature, debate on this aspect of barracks layouts are increasingly controversial, the roof of certain barracks from *ala* forts could have accommodated *calones*¹⁷⁰⁰.

The barracks at Slăveni were covered with tiles, many bearing the stamp NS (IDR II 496, 498–9, 510, 526) abbreviation for *n(umerus) S(yrorum)*, located at Romula. Precisely for this reason, the barracks could have been erected latest under Septimius Severus, when the *numerus* moves to Mauretania¹⁷⁰¹. Such tiles were also used in the 'Philips Arabs Wall' at Romula, here being probably reused¹⁷⁰². Hence, barracks could have been constructed once with other structures from the fort by the end of the 2nd—beginning of the 3rd centuries AD.

Stables (?)

Buildings described as stables were identified between the barracks and *via sagularis* ends, in the four fort corners, however oriented *per strigas*. Their sizes are similar to those of

¹⁶⁹⁵ See the case of the fortification at Heidenheim, after Davison 1989, 205.

¹⁶⁹⁶ Moreover, excavations in the fort *retentura* were not even performed. This was noticed by M. Hassall, Hassall 1983, 105.

¹⁶⁹⁷ Davison 1989, 94–6.

¹⁶⁹⁸ At Hod Hill for instance, such compartment measures 0.75 × 1.25 m, Davison 1989, 233.

¹⁶⁹⁹ Tudor 1978, 306.

¹⁷⁰⁰ See discussion and bibliography in Hodgson 2003, 84.

¹⁷⁰¹ See Speidel 1973, 171, n. 24 with bibliography. This view is disputed by C. C. Petolescu who differentiates the irregular troops of Syrians recorded in Dacia and Mauretania, Petolescu 1983, 44.

¹⁷⁰² Speidel 1973, 169, n. 5.

barracks, however the lack of compartments led the excavator believe they were stables. This argument is insufficient though and more supporting evidence is necessary. Moreover, their restoration with a verandah in front is rather improbable, as, such addition is neither usual nor required for stables. Hence, I believe these structures might be in fact barracks as well. Same conclusion would be reached if one would imagine the soldiers' distribution within the fort.

D. Davison maintains that the 16 total buildings rendered by D. Tudor are suitable to *ala quingenaria* requirements however, the four buildings in the fort corners deemed stables are insufficient to accommodate all troop horses¹⁷⁰³. Therefore, either good part were kept outdoors¹⁷⁰⁴, since inside the fort there was enough space free of constructions or, part of them were accommodated in the barracks *arma*. The latter is increasingly found with equestrian units forts¹⁷⁰⁵, yet the *contubernia* at Slăveni seem to have been paved with bricks¹⁷⁰⁶. Therefore, these rooms could not have been provided with horse waste pits.

Troops

The excavators support the earthen fort construction during the Dacian wars by *ala I Hispanorum*, *ala I Claudia*, *coh. I Britannica* (?), *coh. I Flavia Commagenorum* (IDR II 528), vexillations of *leg. V Macedonica*, *XI Claudia* and *XIII Gemina*, certain repairs being also carried out by effectives of *numerus Surorum*¹⁷⁰⁷.

The brick enclosure was supposed to be erected for and by *ala I Hispanorum*¹⁷⁰⁸ based on the inscription, which mentioned respective troop constructing something [*a funda*]*m[enti]s* (CIL III 13800 = IDR II 496), however this only proves that the troop erected **something** inside the fort at that time. The beginning of the 3rd century AD is evidently a period of intensive construction and reconstruction, since *ala I Hispanorum* also erected a *basilica* inside the fort¹⁷⁰⁹.

Ala seems to be identical with that in Germania, Pannonia and Moesia Inferior, being recorded by several inscriptions from Trier (CIL XIII 11317), Mainz (CIL XIII 7026, 7027), Kaiseraugst (AE 1969/70 421) and Worms (CIL XIII 6233, 6234), then by certain inscriptions from Pannonia Inferior at Aquincum (CIL III 10513, 10514, 15163; AE 1969/70 477), Mattersburg (CIL III 4244) or Varos Major (AE 1937 216). Subsequently, the troop was transferred to Moesia Inferior as evidenced by the inscription from Guljanci (CIL III 12361), Montana (CIL III 12378) and recently, the diplomas from AD 92 (Petolescu, Popescu 2004), 97 (AE 1997, 1774) and 105 (Pferdehirt no 10).

In Dacia Inferior, the cavalry troop is recorded by the diplomas from AD 129 (CIL XVI 75 = IDR I 10), 130 (Weiß 1997, no. 8), 140 (RMD 39) and 146 (RMD 269). At Slăveni it

¹⁷⁰³ It was thus considered that inside respective buildings, space would accommodate only 288 horses, with 1.24 × 2.53/horse space, therefore it would be required that two of the structures from *retentura* functioned as stables, thus the number of eight barracks and eight stables would be suitable to an *ala quingenaria* strength, Davison 1989, 205.

¹⁷⁰⁴ For horse keeping outdoors see Dixon, Southern 1992, 181 sqq.

¹⁷⁰⁵ For last contributions and entire bibliography see Hodgson 2003.

¹⁷⁰⁶ Tudor 1978, 306.

¹⁷⁰⁷ Tudor 1978, 302.

¹⁷⁰⁸ Tudor 1978, 303.

¹⁷⁰⁹ IDR II 499. For a short bibliography on *basilica exercitatoria* see IDR II, p. 199–200 or Petolescu 1995b. Most adequate area for such a *basilica* would be the front of the headquarters building, possibly over *via principalis*.

is mentioned in two construction inscriptions (IDR II 496, 499), another fragmentary from under Philip Arabs (IDR II 500) and several AH type tile stamps (AE 1966, 317 = IDR II 526).

Other inscriptions attesting the troop former *praefecti* carriers were discovered at Ostia (CIL XIV 22), Roma (CIL VI 3539), Mantua (CIL V 4058), Scupi (AE 1971 299), Tiklat (AE 1967 644), Sevilla (Hispalis) (CIL II 1180) and Mactar (AE 1983 976). Among, the last two are best known, recording the career of *Sex. Iulius Possessor*.

Datable epigraphic items are those where the troop appears with the *Antoniniana* surname, the honourific altar from under Philip Arabs and, fairly certain, those mentioning *Sex. Iulius Possessor* dated under Antoninus Pius. Therefore, we can be sure on the troop stationing in the fort at Slăveni at least in the 3rd century AD. As the troop is not mentioned elsewhere, one may suppose it was garrisoned in the fort at Slăveni also during the 2nd century AD, when it is recorded by Dacia's Inferior diplomas. In fact, it might have been quartered there as early as the Dacian wars, when the fort was part of Moesia Inferior¹⁷¹⁰.

Ala Claudia is mentioned by tile stamps at Slăveni (IDR II 525) as AL CL. The troop was identified with *ala Claudia Gallorum Capitoniana* transferred to Dacia Inferior from Moesia Inferior¹⁷¹¹, where it was recorded in AD 92 (Petolescu, Popescu 2004, 69–76), 97 (Weiß 1997, no. 4), 105 (CIL XVI 50), 111 (RMD 222) and 118–119 (Eck, MacDonald, Pangerl 2002, no. 3) (?) and two tomb stones from Augustae and Variana near Oescus, where it stationed¹⁷¹². The stamps were chronologically framed during the Dacian wars¹⁷¹³, when Slăveni was part of Moesia Inferior. Finally, since Helvius Crescens, a troop decurion was mentioned in an inscription from Mauretania Caesariensis¹⁷¹⁴, it was supposed it moved here under Septimius Severus and his sons¹⁷¹⁵. The troop is not identical with *ala I Claudia nova miscellanea*¹⁷¹⁶, the two units being obviously different and belonged to other provinces¹⁷¹⁷.

Stamps with the *CIB* abbreviation (IDR II 527) from Slăveni were attributed either to *coh. I Bracaraugustanorum*, *coh. I Brittonum* or *I Britannica*, or to a Briton troop recorded in Dacia Inferior¹⁷¹⁸. Unfortunately, there is no indication on the fort chronology and even less on the *CIB* stamp tiles findspot in the headquarters building area. Since *ala Hispanorum* dedicates a statue to Philip Arabs, we can be sure that the cohort was not garrisoned in the fort at Slăveni during this period. However, it might either be present in the area, wherefrom it could have contributed with material or was indeed there by the beginning of the 2nd century AD.

Coh. I Flavia Commagenorum seems to have supplied stamps to several forts on Olt River, being, together with legions active in the area, a troop specialised in the tile material manufacture¹⁷¹⁹.

¹⁷¹⁰ See also Gudea, Zahariade 1980.

¹⁷¹¹ The troop seems to be displaced to Moesia during Thracian uprisings, see Wagner 1963, 323; Speidel 1974, 376. In Dacia Inferior, the troop is mentioned within military diplomas of AD 122 (Pferdehirt 2004, no. 20); 129/30 (Weiß 1997, 243–6); 140 (IDR I 13 = RMD 39) and 146 (RMD 269). B. Gerov and M. Speidel had confirmed, previously the discovery of the AD 122 and 129/30 diplomas, that *ala* was displaced, by the beginning of Hadrian's reign, to Dacia, at that point Dacia Inferior, Gerov 1959, 209 sqq.; Speidel 1974, 377.

¹⁷¹² Speidel 1974, 376.

¹⁷¹³ Tudor 1978, 331; Petolescu 2002, 69.

¹⁷¹⁴ CIL VIII 8828 = ILS 6689 = Pflaum 1960, 840.

¹⁷¹⁵ CIL VIII, 8828 = ILS 6889; Speidel 1973, 378.

¹⁷¹⁶ J. Spaul assigned the stamps at Slăveni to this unit, Spaul 1994, 89.

¹⁷¹⁷ For a short history and bibliography for *ala I Claudia nova* of Dacia Superior see Petolescu 2002, 70–1.

¹⁷¹⁸ Vlădescu 1983, 202, Abb. 10. For a short history see Isac, Marcu 1999, 587–90.

¹⁷¹⁹ Marcu 2004, 577, 585.

Stamps with the *n(umerus) S(yrorum)* (IDR II 529–531) abbreviation were mainly found in the tile roof debris of the barracks from *praetentura*¹⁷²⁰. Noticeably, this *numerus* was also specialized in bricks and tiles production¹⁷²¹.

It is very difficult to appreciate the occupation degree of the barracks in the fort at Slăveni. I only mention that if two *turmae*/barracks would have been accommodated, a total number of 720 soldiers would result, with 8.5/*papilio*. It is hardly acceptable, since *papiliones* are little over 9.00 m². The soldiers' number from *turma* could have been however reduced. If one *turma*/barracks would have been accommodated, then the space became more comfortable, of only four soldiers/*papilio* and a total number of 360 soldiers. Any of these circumstances could be valid although, considering numerous variables, it is hard to decide on the solution, since horses accommodation remains an issue. The easiest and probably most accurate solution would be to consider that the four buildings oriented *per strigas* would also be barracks, resulting a total number of 16 barracks, while horses would be accommodated in their *arma*. Thus, if each *turma* would occupy a barrack, a total number of 480 soldiers would ensue, close to the strength of an *ala quingenaria*¹⁷²².

72. STOLNICENI (*Buridava*)

A settlement was identified at Stolniceni as early as Gr.G. Tocilescu's time and a c. 50 × 60 m fortification was also supposed¹⁷²³. Nonetheless, the troops' number recorded here is impressive. Thus are signalled by tile stamps: *coh. I Hispanorum*, *coh. I Brittonum milliaria*, *coh. I Hispanorum veterana*, *coh. II Flavia Bessorum*, *leg. I Italica*, *leg. V Macedonica*, *leg. XI Claudia* and *pedites singulares*¹⁷²⁴.

Troops

V. Christescu's view that the unit abbreviated *CORSMB* (CIL III 14216, 25 = IDR II 560) on a Stolniceni tile is one and the same with the cohort from the inscriptions at Thessaloniki and Bumbești, and also with *CH I BR mill.* (CIL III 8074) recorded on a stamp at Orșova¹⁷²⁵. Conversely, N. Gostar clearly identifies the Stolniceni troop with *coh. I Augusta Nervia Pacensis Brittonum milliaria*¹⁷²⁶. Likewise, I. I. Russu and C. C. Petolescu, argue that *co(ho)rs M(illiaria) B(rittonum)* is identical with *coh. I Augusta Nervia Pacensis Brittonum milliaria* and a *coh. I Flavia Brittonum* mentioned in the inscription from Thessaloniki¹⁷²⁷. In addition, D. Tudor confirms the similarity of *coh. I Augusta Nerviana Pacensis Brittonum milliaria* with the troop reconstructing the Bumbești fort enclosure after having changed its name to honour Caracalla¹⁷²⁸. Finally, a tile with the retrograde stamp ...XB¹⁷²⁹, recognized by D. Tudor as being [*c(ohors) I]X B(atavorum)*¹⁷³⁰ was uncovered at Bârsești, at 3 km distance

¹⁷²⁰ Tudor 1978, 306.

¹⁷²¹ See also Marcu 2004, 582–3.

¹⁷²² See Cupcea, Marcu 2007, *passim*.

¹⁷²³ *Apud*. Vlădescu 1983, 90–1.

¹⁷²⁴ After Gudea 1997, 88–9.

¹⁷²⁵ Christescu 1937, 184.

¹⁷²⁶ Gostar 1966, 182–3. Same opinion in Vlădescu 1983, 34.

¹⁷²⁷ Russu 1972, 69; Russu 1974, 44; Petolescu 2002, 90. Contra, Daicoviciu, Daicoviciu 1967, 81.

¹⁷²⁸ Tudor 1978, 333.

¹⁷²⁹ IDR II, 572.

¹⁷³⁰ *Coh. VIII Batavorum equitata*, garrison of the fort at Chesterholm (*Vindolanda*) left Britannia to participate in the Dacian wars and shortly after, moves to Raetia where it is recorded by the AD 107

from Stolniceni. On the contrary, N. Gostar states that its identification with the troop at Stolniceni, abbreviated here as [*coh(ors)*] (*milliaria*) *B(rittonum)*, where X could be the *milliaria* sign is very likely¹⁷³¹. K. Dietz and K. Strobel also consider that Bârsești stamp could be identified with the Batavians troop, also *milliaria*, the same unit being recorded in Stolniceni stamps with the *CORSMB* contraction¹⁷³². Single certainty is that, at any rate, a 1000 men troop could not have been quartered in the fortification at Stolniceni, unless fort sizes were greater.

The last mention of *coh. I Augusta Nervia Pacensis Brittonum* is made by the diploma of AD 146 (RMD IV 269), having no further confirmation that the unit stayed here until the province abandonment. To conclude, one cannot totally eliminate the possibility that respective troop was similar to *coh. I Aurelia Brittonum* known in the inscription from Bumbești, although it is hard to believe that the troop's ethnical name changed¹⁷³³.

Coh. I Hispanorum veterana is mentioned in the Hunt papyrus as '*Buridavae in vexillatione*'¹⁷³⁴, thus suggesting this cohort is identical with troop *I Hispanorum* previously mentioned by Dacia Inferior diplomas and in fact, the troop stationed somewhere in this area.

Stamps of *coh(ors) II Fl(avia) Bes(sorum)* (IDR II 561–2) type at Stolniceni confirm that the troop was present on Olt River. Additionally, another stamp with the troop abbreviation as *coh(ors) II Fl(avia) B[e(ssorum)]* (IDR II 571) was discovered in the neighbouring civil settlement from Bârsești. Considering the relatively easy communication by way of Olt River, tile stamps in the area could have also come from Cincșor, the garrison fort of *coh. II Flavia Bessorum* from some point¹⁷³⁵.

Following the identification of stamps recording a *p(edites) s(ingulares)* formation and the mention of Stolniceni in the Hunt papyrus, the general headquarters of Moesia Inferior governor might have been located here during the Dacian wars¹⁷³⁶.

73. An auxiliary fort, aligned to Olt River is supposed at **TIA MARE**, south the fortification at Slăveni, however the area was never researched. D. Tudor holds that a fortification sized c. 30.00 × 30.00 m is located beyond Olt, close to the commune¹⁷³⁷.

74. TITEȘTI

In the fortification sized only 56.60 × 48.20 (0.27 ha) from Titești (pl. 33.2), also in the Cozia massif area, systematic archaeological digs were performed by C. M. Vlădescu and Gh. Poenaru-Bordea only between 1972–1975¹⁷³⁸.

diploma (CIL XVI 94), see Birley 2002, 926–7. At Bârsești, tile material of *coh. II Flavia Bessorum* was also discovered, see IDR II, 571 and Tudor 1978, 233. Single chronological element is a denar from AD 103–112, see Tudor 1978, 233.

¹⁷³¹ Gostar 1966, 184.

¹⁷³² Strobel 1984, 122.

¹⁷³³ See Marcu 2004a, 223.

¹⁷³⁴ Fink 1971, 217–27.

¹⁷³⁵ Marcu 2004, 573.

¹⁷³⁶ Tudor 1964, 351. For other *pedites* and *equites singulares* stamps from Dacia, especially from Apulum, see Băluță, Berciu 1980.

¹⁷³⁷ Tudor 1978, 301.

¹⁷³⁸ Smaller scale excavations were performed by the end of the 19th century by Gr. G. Tocilescu and P. Polonic, being recorded by Tocilescu manuscripts, tome 5133, 19–20 and P. Polonic, I, mss., 8, *Săpăturile la cetățile romane*, valued by D. Tudor in BMMN 9–10, 98–9. For excavations of the 70's see also Tudor 1978, 309–10.

Single identified gates are *praetoria* on the eastern side and *porta decumana*, both of c. 3.50 m span, however without towers. Entrances are flanked by stone spurs as towers substitute¹⁷³⁹. The lack of gates *principales* is explained by the land configuration, sharp on forts sides¹⁷⁴⁰. The enclosure wall was sized 1.50 m and was additionally provided with buttresses. However, it had no corner towers, being by over 3 m thicker in the corners. Based on the enclosure's construction technique only, the fort erection was assigned to the beginning of Hadrian's reign¹⁷⁴¹.

Principia

Except for the enclosure wall and gates, only one building is known from the fort interior. It is extremely interesting, imitating a classical headquarters building at almost miniature scale. It is sized 7.90 × 4.00 m (31.6 m²), thus occupying 1.1% of the total fort surface, while in classical auxiliary forts the headquarters building proportion is of minimum 3%. The construction comprises an inner courtyard (?) or a 5.10 × 4.00 m (20.40 m²) room and other two rooms in the western back side, whose joint surface is of 2.00 × 4.00 m (8.00 m²).¹⁷⁴² It is hard to believe that the only 8 m² space was also divided, especially since the back rooms area is centered on a central room, the *aedes*, storage for money and standards, therefore the number of rooms in the headquarters building back is always an odd number. The building walls are 0.80 m thick, hence one may at least theoretically suppose a storey. In addition, the construction technique similarities between the front and back of the building make us wonder whether the first space represented a courtyard or a *basilica*. The excavators characterised it a room¹⁷⁴³, hence I suppose they thought of a covered structure of *basilica* type. The lack of inner courtyard is signalled in the first at Newcastle, Corbridge and South Shields during phases dated in the 2nd or the beginning of the 3rd centuries AD, being still in use until the 4th century AD¹⁷⁴⁴. On the other hand, headquarters buildings without *basilica* are specific in Britannia only to the 1st century AD. It is however true that a headquarters building without *basilica* emerged on the continent also in the 2nd century AD, being dated at Niederbieber around AD 185¹⁷⁴⁵. The small sizes of this space make me believe it was used as *basilica*, however very small inner courtyards appear often with tribune dwellings inside fortresses¹⁷⁴⁶. In these cases, inner courtyards are provided including with all around porticoes. On the other hand, the closest headquarters building form, as size and plan, is found in the tetrarchic fort at Eining¹⁷⁴⁷.

A headquarters building inside a fortification of Titești size supposes a unitary garrison troop which had its own standards and headquarters. Such a troop could have been only

¹⁷³⁹ Vlădescu 1986, 65. The case of Vărădia is similar, probably that of Sărățeni also, where they could have been superstructures.

¹⁷⁴⁰ Vlădescu 1983, 104.

¹⁷⁴¹ Vlădescu 1983, 105; Gudea 1997d, 92.

¹⁷⁴² Vlădescu 1986, 67.

¹⁷⁴³ Vlădescu 1983, 105.

¹⁷⁴⁴ Bidwell 1997, 71. At South Shields, circumstances are special, as the front courtyard was missing due to the construction of a *horreum* on its location, beside several other storehouses within the fort, hence the supply base nature of this fortification during its fifth phase, Bidwell, Snape 1994, 77.

¹⁷⁴⁵ Johnson 1987, 130.

¹⁷⁴⁶ Petrikovitz 1975, *passim*.

¹⁷⁴⁷ *Principia* is here larger, with only two rooms in the back and is not set in the fort centre, Gschwind 2004, 77–9, Abb. 26.

irregular, brought here under Hadrian or Antoninus Pius. The small proportion of the headquarters building within the fort supposes that space for the soldiers' barracks was required in *latus* as well.

Thus, the fort at Titești could have virtually accommodated two barracks in *praetentura* and three in *retentura*. A small *praetorium* and a *horreum* had space in one part of the *latus* while a barrack suited in the other half. Barracks from *praetentura* and *retentura* were divided in two halves, like the case of the forts at Valkenburg and South Shields¹⁷⁴⁸. Hence, the fort at Titești would have theoretically housed c. 400 soldiers, thus even a *quingenaria* troop. Nevertheless, such a curious headquarters building indicates the presence of a tactically independent troop.

A fort was supposed south Titești, close to **Perișani**, however it was neither researched or identified in the field.

75. URLUIENI

In Urluieni area, archaeological digs were initiated starting with the 70's by I. Bogdan-Cătănicu¹⁷⁴⁹. The two discovered forts located at 30 m distance one from the other and at 30 km south Săpata de Jos, controlled an important road junction. It is also interesting that the two forts seem to have a common enclosure, like at Săpata de Jos¹⁷⁵⁰. They measure 123.00 × 104.00 m and 112.00 × 85.00 m (pl. 40.2). The fortifications enclosure is constructed on a pebble layer and brick sill wall, similarly to the enclosure of the large fort at Săpata de Jos. It is interesting that only the southern enclosure is of Holz-Erdemauer type, compared to the classical earthen and palisade enclosure on other sides¹⁷⁵¹. The enclosure had two phases, the initial being earth-and-timber. The headquarters building is the single interior structure known.

Principia

Headquarters sizes are 31.50 × 29.80 m (938 m²), thus occupying a very large percentage of 7.2% in the fort surface. The inner courtyard stretches over 345 m², hence 36% of *principia*, while *basilica* covers 24% of total. Only the walls foundation was identified, consisting of a 1.09 m wide pebble layer¹⁷⁵².

The eastern rooms in the back were provided with heating system, the pavement of all being made of bricks¹⁷⁵³.

I. Bogdan-Cătănicu maintained these forts were erected by the beginning of the 2nd century AD¹⁷⁵⁴. Identified triangular arrowheads in trench and a bow fragment¹⁷⁵⁵ stand as evidence for the identification of the fortification garrison with archers from Mediterranean areas of the Empire.

¹⁷⁴⁸ First barracks are dated little prior mid 1st century AD (Glasbergen, Groenman- van Waateringe 1974, 8–12), while those at South Shields during the Severan campaigns in Scotland, Hodgson, Bidwell 2004, 125–7.

¹⁷⁴⁹ Bogdan-Cătănicu 1997, 96 sqq.

¹⁷⁵⁰ Tudor 1978, 308; Vlădescu 1986, 87.

¹⁷⁵¹ Bogdan-Cătănicu 1997, 97.

¹⁷⁵² A portico was supposed following the discovery of two brick 'bases'. Therefore, the courtyard could have been sized only 18 × 12.70, after Bogdan-Cătănicu 1997, 102.

¹⁷⁵³ Bogdan-Cătănicu 1997, 103.

¹⁷⁵⁴ Bogdan-Cătănicu 1997, 98.

¹⁷⁵⁵ Bogdan-Cătănicu 1997, 104.

Unfortunately, the chronological relation between the two forts could not be established, as the smaller was less investigated. Single datable items from the *via sagularis* area are the coins from Elagabalus and a wheel-made lamp dated in the 3rd century AD.

76. VALEA URLUII

Another fortlet of c. 48.00 × 72.00 m sides surrounded by three ramparts and three ditches is supposed at Valea Urluii¹⁷⁵⁶.

77. The small fortification at **Voinești** is located at 22 km south the fort at Rucăr and at 12 km north the fort at Câmpulung-Jidova. M. Bădescu together with C. Becleanu¹⁷⁵⁷ performed archaeological excavations in 1969, while C. C. Petolescu, T. Cioflan and M. Bădescu resumed them in 1980¹⁷⁵⁸, identifying a 1.15 m wide enclosure wall and parts of certain buildings, probably barracks. Further details or their layouts are not known.

Troops

Tile stamps of *leg. XI Claudia* and *coh. I Flavia Commagenorum* were discovered¹⁷⁵⁹. The abbreviations on *tegulae* are similar to those discovered in the fort at Drajna. Hence, the fortification at Voinești was dated under Trajan¹⁷⁶⁰.

¹⁷⁵⁶ Tocilescu 1900, 124; Tudor 1978, 309, Fig. 76/1.

¹⁷⁵⁷ Bădescu 1981, 291.

¹⁷⁵⁸ Stoia 1981, 377, no. 130. See also Bogdan-Cătănciu 1997, 45.

¹⁷⁵⁹ Bădescu 1981.

¹⁷⁶⁰ Bădescu 1981, 293–4.

BIBLIOGRAPHIC ABBREVIATIONS

The abbreviations were used according to L'Année Philologique, Paris, 1982 and S. Cociș, F. Marcu, O. Țentea, *Bibliografia Daciei Romane*, Cluj-Napoca (1990–2000).

- AA 2002, 5, 31.** The Roman Fort at Newcastle upon Tyne. *Archaeologia Aeliana* 5th Series, Volume XXXI (Extra Volume for 2002).
- Ackner, M. J. 1856.** *Jahrbuch der k. k. Central Commission zur Erforschung und Erhaltung der Kunst- und Historischen Denkmäler* 28, Wien.
- Adam, J. P. 1982.** Grome et Chorobate. *MEFRA* 94, 2, 1003–1029.
- Alföldy, G. 1968.** Die Hilfstruppen der römischen Provinz Germania Inferior. *Epigraphische Studien* 6, Bonn—Düsseldorf.
- Alicu, D. 1973.** *Turnuri de porți la castrele romane din Dacia*. *ActaMN* 10, 107–25.
- Alicu, D. 1998.** *Bibliografia așezărilor antice de la Vețel-Micia*. *Sargetia* 27, 401–25.
- Alicu, D. 2000.** *Templul lui Mithras de la Pojejena*. *Sargetia* 28–9, 219–20.
- Alicu, D. 2002.** *Addenda la repertoriul templelor romane din Dacia*. *Apulum* 39, 201–35.
- Ardeț, A., Ardeț, C. 2000.** Teregova, com. Teregova, jud. Caraș-Severin. *CCA* 1999 (2000).
- Ardeț, A., Ardeț, C. 2004.** *Tibiscum. Așezările romane*. Cluj-Napoca.
- Ardevan, R. 1998.** *Viața municipală în Dacia Romană*, Timișoara.
- Aricescu, A. 1977.** *Armata în Dobrogea romană*. București.
- Avram, R., Avășiloaiei, D. 1995.** *Garnizoana romană de la Castra Traiana*. *SCIVA* 46, 1995, 2, 193–5.
- Avram, R., Petolescu, C. C. 1997.** *Les foilles archéologiques sur la frontière de Dacia Malvenis (1983–1997)*. *Limes XVI* 1997 (1999), Zalău.
- Baatz, D., Herrmann, F. R. 1982.** *Die Römer in Hessen*. Stuttgart.
- Bădescu, M. I. 1981.** *Ștampile tegulare de la Voinești, Muscel, com. Lerești (jud. Argeș)*. *SCIV* 32/2, 291–5.
- Bailey, G. B. 1994.** *The provision of fort-annexes on the Antonine Wall*. *PSAS* 124, 299–314.
- Bakó, G. 1975.** *Numerus Illyricorum la Hoghiz*. *SCIVA* 26/1, 141–6.
- Bakó, G. 1977.** *O vexilație a legiunii a XIII-a Gemina în sud-estul Transilvaniei*. *SCIVA* 28/2, 195–208.
- Bakó, G. 1980.** *Cohors I Bracaraugustanorum*. *SCIVA* 31/4, 631–5.
- Balla, L. 1969 = 2000.** *Studia Dacica*. Debrecen = *To the questions of the military history of Dacia in the second century*. *ACD* 1, 39–48.
- Bălțeanu, D. 2000.** *AO* 15, 2000.
- Băluță, Cl. L. 1987.** *Un missicius alae Batavorum à Apulum*. *Apulum* 24, 169–72.
- Băluță, Cl. L. 1990.** *Relief votiv dedicat Eponei descoperit la Războieni-Cetate*. *SCIVA* 41/1, 83–7.
- Băluță, Cl. L., Berciu, I. 1980.** *Pedites et equites singulares in Dacia*. *Apulum* 18, 109–29.

- Bărbulescu, M. 1987.** Din istoria militară a Daciei romane. Legiunea V Macedonica și castrul de la Potaissa, Cluj-Napoca.
- Bărcăcilă, Al. 1932.** Drobeta – azi Turnu Severin. Craiova.
- Bărcăcilă, Al. 1938.** Une ville daco-romaine. Drubeta, București.
- Barnes, T. D. 1979.** The Date of Vegetius. Phoenix 33, 254–7.
- Benea, D. 1976.** Câteva precizări cu privire la monumentele epigrafice ale cohortei I Sagittariorum la Drobeta. SCIV 27/1, 77–84.
- Benea, D. 1978.** Cărămizi ștampilate din colecția Muzeului Porților de Fier. Apulum 16, 199–209.
- Benea, D. 1980.** Numerus Palmyrenorum Tibiscensium. Contribuții la istoria trupelor de palmyrieni din Dacia. Apulum 18, 131–40.
- Benea, D. 1982.** Contribuții la cunoașterea unităților militare din castrul roman de la Tibiscum. StComEIC 4, 173–84.
- Benea, D. 1983.** Din istoria militară a Moesiei Superior și a Daciei, Cluj.
- Benea, D. 1985.** Die Cohors I Vindelicorum CR p. f. in Dakien. Römische Geschichte, Altertumskunde und Epigraphik. Festschrift A. Betz, Wien, 47–58.
- Benea, D. 1985a.** Numerus Maurorum Tibiscensium. Contribuții la istoria trupelor de mauri din Dacia. Banatica 8, 139–54.
- Benea, D. 1997.** Epigraphica (I). Civilizația romană în Dacia (ed. M. Bărbulescu), Cluj-Napoca.
- Benea, D., Bona, P. 1994.** Tibiscum. București.
- Beneš, J. 1978.** Auxilia romana in Moesia atque in Dacia. Zu den Fragen des römischen Verteidigungssystems im unteren Donaauraum und in den angrenzenden Gebieten. Praha.
- Bersanetti, G. M. 1940.** I soprannomi imperiali variabili degli auxilia dell' esercito Romano. Athenaeum XVIII.
- Bidwell, P. 1980.** Roman Exeter: Fortress and town. Exeter.
- Bidwell, P. 1997.** Roman Forts in Britain. London.
- Bidwell, P., Snape, M., Croom, A. 1999.** Hardknott Roman fort, Cumbria.
- Bidwell, P., Speak, S. 1994.** Excavations at South Shields Roman Fort I. Newcastle u.T.
- Birley, A.R. 2002.** The Roman Army in the Vindolanda Tablets. Limes 18 2000. BAR IS 1084 (II), 925–30.
- Birley, A.R. 2002a.** Garrison life at Vindolanda. A band of brothers. Charleston.
- Birley, E. 1966.** Alae and Cohortes Milliariae. Corolla Memoriae Erich Swoboda ded, Graz, 54–67.
- Birley, E. 1985.** The dating of Vegetius and the Historia Augusta. Bonner Historia Augusta Colloquium 1982–1983, 57–67.
- Birley, R., Blake, J., Birley, A. 1997.** The 1997 excavations at Vindolanda. The Praetorium site. Interim report, Haltwhistle.
- Bishop, MC., Dore, J. N. 1988.** Corbridge. Excavation of the Roman fort and town. London. (AA 28).
- Blume, F., Lachmann, K., Rudorff, A. 1848.** Die Schriften der römischen Feldmesser, vol. 1, Berlin.
- Bogaers, J. E. 1974.** Troupes auxiliaires thraces dans la partie néerlandaise de la Germania Inferior. Limes 9 Mamaia, 445–64.
- Bogdan-Cătănicu, I. 1969.** Despre sud-estul Transilvaniei în epoca romană. AMN 6, 477–81.
- Bogdan-Cătănicu, I. 1974.** Cercetări în castellum de la Rucăr. SCIV 25/2, 277–88.
- Bogdan-Cătănicu, I. 1977.** Nouvelles recherches sur le limes du sud-est de la Dacie. Limes 11 Székesfehérvár, 333–53.
- Bogdan-Cătănicu, I. 1981.** Evolution of the system of defenceworks in Roman Dacia. BAR 116, Oxford.
- Bogdan-Cătănicu, I. 1990.** À propos de civitates en Dacie. EN 1, 59–67.
- Bogdan-Cătănicu, I. 1997.** Muntenia în sistemul defensiv al imperiului roman sec. I-III p.Chr. Alexandria.
- Bolliac, C. 1858.** Caletorie arheologică în România. București.
- Bona, P., Petrovsky, R., Petrovsky, M. 1982.** Tibiscum. Cercetări arheologice (I) 1976–1979. AMN 19, 311–30.
- Bona, P., Petrovsky, R., Petrovsky, M. 1983.** Tibiscum – cercetări arheologice (III), 1976–1979. AMN 20, 405–32.

- Bona, P., Petrovsky, R., Petrovsky, M., Rogozea, P. 1982.** *Tibiscum. Cercetări arheologice(II)*. StComEIC 4, 185–207.
- Bona, P., Rogozea, P. 1985.** *Tibiscum, cercetări arheologice (III)*. Banatica 8, 155–71.
- Bosworth, A. B. 1977.** *Arrian and the Alani*. Harvard Studies in Classical Philology 81, 217–55.
- Bosworth, A. B. 1980.** *A Historical Commentary on Arrian's History of Alexander*. vol. I, Oxford.
- Bota, E., Ruscu, L., Ruscu, D., Ciongradi, C. 2004.** *Cercetări arheologice în castrul alei I Batavorum milliaria de la Războieni-Cetate (jud. Alba)*. Apulum 41, 291–300.
- Bowman, A. K., Thomas, J. D. 1994:** *The Vindolanda Writing-Tablets. Tabulae Vindolandenses II*, London.
- Brand, C. E. 1968.** *Roman Military Law*. Texas.
- Breeze, D. J. 1993.** *Cavalry on Frontiers*. In: D. J. Breeze, B. Dobson. *Roman Officers and Frontiers*. Stuttgart, 288–97.
- Breeze, D. J. 1974.** *Review of Birrens and Künzing*. Britannia 8, 1977, 451–60.
- Breeze, D. J. 1983.** *Roman forts in Britain*. London.
- Breeze, D. J., Dobson, B. 1969.** *Fort Types on Hadrian's Wall*, AA 4th ser., 47,1969, 15–32= *Mavors* 10, 461–468.
- Brunt, P. A. 1976.** *Arrian. History of Alexander and Indica*. vol. I și II. Harvard.
- Bujor, E. 1959.** *Șantierul arheologic Bumbști*. MCA 2, 419–23.
- Bujor, E. 1983.** *Lucrările de restaurare și consolidare la castrul cu zid de piatră de la Bumbști-Jiu (jud. Gorj)*. MCA 15 Brașov, 350–1.
- Cagnat, R. 1908.** *Les deux camps de la légion IIIe Auguste à Lambèse d'après les fouilles récentes*. Mémoires de l'Académie des inscriptions et belles-lettres 38, 1. Paris.
- Callies, H. 1964.** *Die Fremdentruppen im römischen Heer des Principats und die sogenannten nationalen Numeri*. BRGK Sonderheft 45.
- Campbell, B. 1987.** *Teach yourself how to be a general*. JRS 77, 13–29.
- Campbell, B. 1994.** *The Roman Army 31 BC – AD 337. A Sourcebook*. London—New York.
- Campbell, B. 1996.** *Shaping the rural environment: surveyors in ancient Rome*. JRS 86, 74–99.
- Campbell, B. 2000.** *The Writings of the Roman Land Surveyors*. JRS Mo. no. 9, London.
- Cantacuzino, Gh. 1944.** *Le grand camp romain situé près de la commune de Băneasa (Département de Teleorman)*. Première rapport. Dacia 9–10, 441–72.
- Chirilă, E., Gudea, N., Lucăcel, V., Pop, C. 1972.** *Castrul roman de la Buciumi*. Cluj.
- Christescu, V. 1934.** *Le trésor de monnaies de Săpata-de-Jos et la date du limes romain de la Valachie*. Istros 1, 73–80.
- Christescu, V. 1937.** *Istoria militară a Daciei Romane*, București.
- Cichorius, C. 1900.** *Die Reliefs des Traianssäule (1896–1900)*.
- Clauss, M. 1990.** *Mithras. Kult und Mysterien*. München.
- Cociș, S. 2004.** *Fibulele din Dacia romană*. Cluj-Napoca.
- Crow, J. 1995.** *Book of Housesteads*, London.
- Cupcea, G., Marcu, F. 2007.** *Size and organization of the Roman army and the case of Dacia under Trajan*. Dacia N.S. 50, 175–94.
- Czysz, W., Dietz, K.-H., Fischer, Th., Kellner, H.-J. 1995.** *Die Römer in Bayern*, Stuttgart.
- Daicoviciu, C. 1931.** *Micia I. Cercetări asupra castrului. (Cu un "Supliment epigrafic")*. *Recherche sul castro. (Con un "Supplementum epigraphicum")*. ACMIT 3, 3–44 = *Dacica*, 162–87.
- Daicoviciu, C. 1932.** *Notițe arheologice și epigrafice*. AISC 1.2, 18–63.
- Daicoviciu, C. 1935.** *Dacica. În jurul unor probleme din Dacia romană*. AISC 2, 240–56 = *Dacica*, 236–49.
- Daicoviciu, C. 1940.** *Neue Mitteilungen aus Dazien (Funde und Einzeluntersuchungen)*. Dacia 7–8, 299–336.
- Daicoviciu, C. 1944.** *Nesciendi ars...* [Răspuns lucrării lui D. Tudor. Sextus Iulius Possesor in Dacia]. Sibiu, 26 p.
- Daicoviciu, C. 1945.** *La Transylvanie dans l'Antiquité*, Bucarest.
- Daicoviciu, C. 1966.** *Severus Alexander și provincia Dacia*. AMN 3, 153–71 = *Dacica*, 386–403.
- Daicoviciu, C., Daicoviciu, H. 1967.** *Noi considerații asupra Daciei Malvensis*. ActaMN 4,77–83

- Daicoviciu, C., Protase, D. 1964.** *O diplomă militară din Dacia Porolissensis. Știri noi despre organizarea Daciei romane.* AMN 1, 1964, 163–80 = *Un nouveau diplôme militaire de Dacia Porolissensis.* JRS 51, 1961, 63–70 = *Dacica*, 346–56.
- Daicoviciu, H. 1978.** *Miscellanea Epigraphica.* AMN 15, 115–23.
- Daicoviciu, H., Glodariu, I. 1971.** *Un castru în regiunea cetăților dacice din Munții Orăștiei.* *Lucrări științifice*, 17–23.
- Daicoviciu, H., Glodariu, I. 1973.** *Castrul roman de la Orăștioara de Sus.* *Materiale* 10, 78–81.
- Dain, A. 1946.** *Histoire du Texte d'Élien le tacticien des origines à la fin du moyen age.* Paris.
- Davies, R.W. 1989.** *Service in the Roman Army.* Edinburgh 1989.
- Davison, D. 1989.** *The Barracks of the Roman army from the 1st to the 3rd centuries A.D.,* BAR IS 472, Oxford.
- Diaconescu, Al. 1984.** *Propuneri pentru reconstituirea unor elemente de fortificație ale castrului de la Gilău.* AMN XXI, 145–168.
- Diaconescu, Al. 2005.** *Statuaria majoră în Dacia.* Cluj-Napoca.
- Dietz, K. 1983.** *Kastellum Sablonetum und der Ausbau des rätischen Limes unter Kaiser Commodus.* *Chiron* 13, 497–536.
- Dilke, O.A.W. 1971.** *The Roman Land Surveyors,* Plymouth.
- Dilke, O.A.W. 1974.** *Archaeological and Epigraphic Evidence of Roman Land Surveys,* ANRW II.1, 564–592.
- Dixon, K., Southern, P. 1992.** *The Roman Cavalry.* London.
- Dobson, B. 1983.** *Review: The Roman Army in Britain.* By P. A. Holder. *Britannia* 14, 362–4.
- Domaszewski, A. von 1887 (ed.).** *Hyginus, Liber de munitionibus castrorum, ch. 27,* Leipzig.
- Domaszewski, A. von 1895.** *Die Religion des römischen Heeres.* Trier.
- Domaszewski, A. von 1898.** *Die Rangordnung des Römischen Heeres.* Köln.
- Domaszewski, A. von 1899.** *Die Principia des römischen Lagers,* *Neue Heidelberger Jahrbücher* 9, 141–163.
- Domaszewski, A. von 1903.** *Untersuchungen zur römischen Kaisergeschichte.* *RhM* lix, 382–90.
- Doruțiu-Boilă, E. 1968.** *Über einige Statthalter von Moesia Inferior.* *Dacia N.S.* 12, 395–408.
- Eck, W., Isac, D., Piso, I. 1994.** *Ein Militärdiplom aus der Provinz Dacia Porolissensis.* *ZPE* 100, 577–91.
- Eck, W., MacDonald, D., Pangerl 2001.** *Neue Diplome für Auxiliärtruppen in den dakischen Provinzen.* AMN 38, 27–48.
- Eck, W., MacDonald, D., Pangerl, A. 2002.** *Neue Militärdiplome mit neuen Konsulndaten.* *Chiron* 32, 401–26.
- Eck, W., MacDonald, D., Pangerl, A. 2002a.** *Neue Militärdiplome zur Geschichte der Provinz Germania Inferior.* *KJ* 35, 227–31.
- Eck, W., MacDonald, D., Pangerl, A. 2004.** *Neue Diplome für Auxiliärtruppen von Unterpannonien und die Dakischen Provinzen aus Hadrianischer Zeit.* AMN 39–40/1 2002–2003 (2004), 25–50.
- Eck, W., Pangerl, A. 2003.** *Sex. Iulius Frontinus als Legat des niedergermanischen Heeres,* *ZPE* 143, 205–219.
- Étienne, R., Piso, I., Diaconescu, Al. 2004.** *Les fouilles de forum vetus de Sarmizegetusa. Rapport général.* AMN 39–40/1, 59–154.
- Fabricius, E. 1927.** *RE* XIII, col. 641–645.
- Fabricius, E. 1932.** *Some notes on Polybius's description of Roman camps.* *JRS* 22, 78–87.
- Fellmann, R. 1958.** *Die Principia des Legionslagers Vindonissa und das Zentralgebäude der römischen Lager und Kastelle,* Brugg.
- Ferenczi, Al. 1951.** *Așezările dacice din Munții Orăștiei. Studiu bibliografic asupra așezărilor.* București.
- Ferenczi, I. 1957.** *A tihói római táborról [Despre castrul roman de la Tihău].* *EmlKel*, 279–92.
- Filtzinger, Ph., Plank, D., Cămerer, B. 1976.** *Die Römer in Baden-Württemberg.* Stuttgart und Aalen.
- Fink, R.O. 1971.** *Roman Military Records on Papyrus.* London/Michigan.
- Fischer, W. 1914.** *Das römische Lager insbesondere nach Livius.* Leipzig
- Floca, O., Mărghitan, L. 1970.** *Noi considerații privitoare la castrul roman de la Micia.* *Sargetia* 7, 43–57.
- Florescu, Gr. 1931.** *Castrul roman Drobeta (Turnu-Severin). Cercetări și săpături arheologice din 1931.* *RIR* 3, 54–77.

- Florescu, Gr. 1931a.** Castrul roman de la Răcari-Dolj. Săpăturile arheologice din 1928 și 1930. Craiova.
- Florescu, Gr. 1934.** *Le camp romain de Arcidava*. Istros 1, 60–72.
- Florescu, R. 1965.** *Descoperiri noi la Drobeta și reformele militare din a doua jumătate a secolului al III-lea e. n.* RM 2, 435–6.
- Florescu, R. 1965a.** *Problema originilor bazilicii creștine și principia fazei târzii a castrului Drobeta*. Apulum 5, 572–90.
- Florescu, R. 1967.** *Les phases de construction du castrum Drobeta (Turnu-Severin)*. Limes 6 Köln—Graz, 144–51.
- Florescu, R. 1970.** *Descoperiri noi la Drobeta și reforme militare din a doua jumătate a sec. III e.n.* SCSMI 1, 433–9.
- Franzen, P., Matei, Al.V., Marcu, F. 2007.** *The Roman fort at Romita*. AMN 41/1, 2004 (2007).
- Frere, S. S. 1980.** Hyginus and the First Cohort. *Britannia* 11, 51–60.
- Frere, S. S., Wilkes, J.J. 1989.** *Strageath (excavation within the Roman fort 1973–1986)*. *Britannia Monograph Series* 9, London.
- Garbsch, J., Gudea, N. 1991.** *Despre cea mai veche diplomă militară eliberată pentru provincia Dacia*, AMP 14–15, 61–82.
- Gentry, A. P. 1976.** Roman military stone built granaries in Britain, BAR 32, Oxford.
- Gerov, B. 1959.** *Zwei neugefundene Militärdiplome aus Nordbulgarien*. *Klio* 37, 196–216.
- Giuffrè, V. 1974.** *La letteratura «de re militari»*. Napoli.
- Glasbergen, W., and Groenman-van Waateringe, W. 1974.** *The Pre-Flavian Garrisons of Valkenburg Z. H.*, Amsterdam.
- Glodariu, I. 1972.** *Numerus Germanicianorum en Dacie*. *Vestigia* 17, 543–5.
- Goldsworthy, A. K. 1996.** *The Roman Army at War 100 BC – AD 200*. Oxford.
- Gostar, N. 1954.** *Numele antic al așezării de la Răcari*. SCIV 5, 3–4, 607–10.
- Gostar, N. 1956.** *Inscripții și monumente din Germisara*. *Sargetia* 3, 56–99.
- Gostar, N. 1959.** *Castrul roman de la Orăștioara de Sus*. MCA 6, 350–3.
- Gostar, N. 1966.** *Studii epigrafice II*. *ArhMold* 4, 175–188.
- Gostar, N. 1968.** *Unitățile militare din castrul roman de la Tibiscum*. AMN 5, 471–7.
- Gostar, N. 1968a.** *O stare de alarmă pe limesul de vest al Daciei*. AUI 14, 93–102. *Analele Universității Iași*.
- Gostar, N. 1969.** *Ulpianum (Ptolemeu, Geogr. III, 8, 4)*. *Analele Științifice ale Universității “Al. I. Cuza” din Iași* III a. *Istorie* 15, 171–6.
- Gostar, N. 1972.** *Ein Numerus Germanicianorum Exploratorum in oberen Dakien*. *Germania* 50, 241–7.
- Gostar, N. 1979.** *L'Armée romaine dans les guerres daces de Trajan (101–102, 105–106)*. *Dacia N.S.* 23, 115–22.
- Groenman-van Waateringe, W. 1991.** *Valkenburg ZH 1: Fabrica or Praetorium?*. *Limes XV Exeter* 1989, 179–83.
- Gschwind, M. 2004.** *Abusina. Das Römische Auxiliarkastell Eining an der Donau vom 1. bis 5. Jahrhundert n.Chr.* München.
- Gudea, N. 1972.** *Castrul roman de la Bologa*. *Apulum* 10, 121–150.
- Gudea, N. 1972a.** *CIL III, 7648*. *Apulum* X, 707–13.
- Gudea, N. 1972b.** *Inscripții și ștampile tegulare din castrul roman de la Bologa*. AMN 9, 413–37.
- Gudea, N. 1973.** *Sondajul arheologic de la Teregova (jud. Caraș-Severin)*. *Banatica* 2, 97–101.
- Gudea, N. 1973a.** *Castrul roman de la Bologa*. *Crisia* III, 109–137.
- Gudea, N. 1975.** *Sistemul defensiv al Daciei romane. Observații în legătură cu faza de pământ a castrelor*. AIIA 18, 71–87.
- Gudea, N. 1975a.** *Date noi despre castrul roman de la Pojejena*. *Banatica* 3, 332–43.
- Gudea, N. 1976.** *Observații în legătură cu unele “Note epigrafice”*. SCIVA 517–21.
- Gudea, N. 1977.** *Limesul Daciei romane de la Traianus la Aurelianus*. AMP 1, 97–113.
- Gudea, N. 1979.** *Castrul roman de la Inlăceni*. AMP 3, 149–273.
- Gudea, N. 1980.** *Castrul roman de la Brețcu*. AMP 4, 255–365.
- Gudea, N. 1982.** *Despre câteva donaria aplici cu disc cu inscripție din Dacia*. AMP VI, 51–57.

- Gudea, N. 1983.** Bericht über die zwischen 1979 und 1983 am Limes der drei Dakien und den benachbarten Provinzen Moesia Superior und Moesia Inferior durchgeführten archäologischen Forschungen. Limes 13 Aalen, 477–497.
- Gudea, N. 1983a.** Contribuții la istoria militară a Daciei romane. 3. Cohors II Britannica de la Romita. AMP 7, 153–8.
- Gudea, N. 1984.** Contribuții la istoria militară a Daciei romane. 4. Cohors VI Thracorum, AMP 8, 219–225.
- Gudea, N. 1989.** Porolissum un complex arheologic daco-roman la marginea de nord a Imperiului roman. AMN 13.
- Gudea, N. 1992.** Archäologische Forschungen auf dem Limes der drei dakischen Provinzen und auf den Grenzen der benachbarten Provinzen Moesia Inferior zwischen den Jahren 1983–1988. EN 2, 69–93.
- Gudea, N. 1994.** Römische Waffen aus der Kastellen des westlichen Limes von Dacia Porolissensis. Beiträge zu römischer und barbarischer Bewaffnung in den ersten drei nachchristlichen Jahrhunderten, Marburger Kolloquium, 79–89.
- Gudea, N. 1996.** Die Nordgrenze der Provinz Moesia Superior 106–275 p.Ch. AMN 33/1, 49–88.
- Gudea, N. 1997.** Das Römergrenzkastell von Buciumi. Castrul roman de la Buciumi. Zalău.
- Gudea, N. 1997a.** Castrul roman de la Bologa-Resculum, Zalău (Ghid al monumentelor arheologice 1).
- Gudea, N. 1997b.** Castrul roman de la Buciumi, Zalău (Ghid al monumentelor arheologice 2).
- Gudea, N. 1997c.** Castrul roman de pe vârful dealului Pomet-Moigrad. Porolissum 1, Zalău.
- Gudea, N. 1997d.** Der dakische limes. Materialien zu seiner geschichte. JRGZ 44, 1–113.
- Gudea, N. 1997e.** Cohors I Hispanorum quingenaria equitata. AMN 34/1, 53–65.
- Gudea, N. 2001.** Die Nordgrenze der Römischen Provinzen Obermoesien. Materialien zu ihrer Geschichte (86–275 n.Chr.). JRGZM 48, 3–118.
- Gudea, N. 2001a.** Restituiri arheologice. III. cohors IIII Betasiorum. EN 11, 55–60.
- Gudea, N. 2002.** Contribuții la istoria militară a Daciei Porolissensis. Îndreptări în legătură cu legio III Gallica. RB XVI, 47–54.
- Gudea, N. 2002a.** Îndreptări arheologice. 1. Note la “Mithraea în Dacia”. Apulum 39, 618–21.
- Gudea, N., Bozu, O. 1977.** A existat un sanctuar mithriac la Pojejena? Banatica 4, 117–30.
- Gudea, N., Bozu, O. 1977a.** Cronică arheologică și repertoriu (Pojejena). Banatica 4, 435–6.
- Gudea, N., Bozu, O. 1977b.** New Mithraic Monuments from Pojejena, Romania. JMS II. 1, 69–78.
- Gudea, N., Bozu, O. 1979.** Raport preliminar asupra săpăturilor arheologice executate în castrul roman de la Pojejena în anii 1977–1978. Banatica 5, 181–4.
- Gudea, N., Chirilă, E., Matei, Al. V., Bajusz, I., Tamba, D. 1986.** Raport preliminar privind săpăturile arheologice și lucrările de conservare și restaurare executate la Porolissum în anii 1983–1985. AMP 10, 119–55.
- Gudea, N., Chirilă, E., Matei, Al. V., Bajusz, I., Tamba, D. 1992.** Raport privind cercetările de la Porolissum. 1988–1991. AMP 18, 143–84.
- Gudea, N., Chirilă, E., Matei, Al. V., Bajusz, I., Tamba, D., Moțu, I., Stoica, C. 1988.** Raport preliminar în legătură cu săpăturile arheologice și lucrările de conservare și restaurare executate în complexul daco-roman Porolissum în anii. 1986–1987. AMP 12, 147–74.
- Gudea, N., Landes, A. 1981.** Propuneri pentru o reconstituire grafică a castrului roman de la Buciumi III. AMP 5, 247–271.
- Gudea, N., Pop, I. 1971.** Castrul roman de la Rîșnov Cumidava. Contribuții la cercetarea limesului de sud-est al Daciei romane. Brașov.
- Gudea, N., Pop, I. 1973.** Castrul roman de la Rîșnov. Săpăturile din anul 1971. Cumidava 7, 13–47.
- Gudea, N., Pop, I. 1975.** Cercetări arheologice recente în castrul roman de la Rîșnov. SMMIM 7–8, 55–78.
- Gudea, N., Pop, I. 1977.** Un castru nou descoperit în sistemul defensiv al Daciei romane. castrul roman de la Feldioara. Pontica 10, 333–8.
- Gudea, N., Pop, I. 1980.** Săpăturile din castrul roman de la Feldioara. MCA 14 Tulcea, 289–91.

- Gudea, N., Uzum, I. 1973.** *Castrul roman de la Pojejena*. Banatica 2, 85–96.
- Gudea, N., Zahariade, M. 1980.** *Spanish units in Roman Dacia*. Archivo Español de Arqueología 53, 61–76.
- Gudea, N., Zrinyi, A. 1977.** *Contributions épigraphiques à l'histoire de la Ala I Bosporanorum*. Epigraphica 7, 223–32 = *Contribuții la istoria militară a Daciei romane. 2. Ala I Gallorum et Bosporanorum*. Marisia, 1984, 13–4, 51–8.
- Haalebos, J. K. 1977.** *Zwammerdam-Nigrum Pullum. Ein Auxiliarkastell am Niedergermanischen Limes*. Cingula III.
- Haalebos, J. K. 1999.** *Nederlanders in Roemenië*, Nijmegen 1999.
- Haalebos, J. K. 1999a.** *Nederlanders in Roemenië*. AWN. Westerheem 48/6, 197–210.
- Haalebos, J. K. 2000.** *Traian und die Hilfstruppen am Niederrhein. Ein Militärdiplom des Jahres 98 n.Chr. aus Elst in der Over-Betuwe (Niederlande)*. SJ 50, 31–72.
- Hanson, W. S. 1982.** *Roman Military Timber Buildings: Construction and Reconstruction*. Woodworking Techniques before A.D. 1500. BAR IS 129, 169–86
- Hanson, W. S., Oltean, A. I. 2003.** *The identification of Roman buildings from the air: recent discoveries in Western Transylvania*. Archaeological Prospection (sub tipar).
- Hassall, M. 1983.** *The Internal Planning of Roman Auxillary Forts*. Rome and its Northern Provinces, B. Hartley, J. Wachter (ed.), Gloucester, 96–131
- Hodgson, N. 1996.** *A late Roman courtyard house at South Shields and its parallels*. Architecture in Roman Britain (ed. P. Johnson, I. Haynes), 135–51.
- Hodgson, N. 2002.** *'Where did they put the horses?' revisited: the recent discovery of cavalry barracks in the Roman forts at Wallsend and South Shields on Hadrian's Wall*. Limes 18 Amman 2000 (2002), 887–94.
- Hodgson, N. 2003.** *The Roman Fort at Wallsend (Segedunum)*, Newcastle u. T.
- Hodgson, N., Bidwell, P. 2004.** *Auxiliary barracks in a new light. Recent discoveries on Hadrian's Wall*. Britannia 35, 121–58.
- Holder, P.A. 1982.** *The Roman Army in Britain*. London.
- Holder, P.A. 1998.** *Auxiliary units entitled Aelia*. ZPE 122, 253–62.
- Holder, P.A. 2003.** *Auxiliary deployment in the reign of Hadrian*, London (reprinted from Documenting the Roman Army, BICS Supplement 81), 101–45.
- Horedt, K. 1949.** *Săpăturile arheologice din sudul Transilvaniei*. Studii 2/1, 142–4.
- Horedt, K. 1950.** *Pătrunderea și așezarea slavilor în Transilvania*. SCIV 1, 123–5.
- Horedt, K. 1953.** *Cercetări arheologice din regiunile Hoghiz, Ugra și Teiuș*. MCA 1, 785–815.
- Horedt, K. 1974.** *Interpretări arheologice, V (Dacia amissa)*. SCIV 25/4, 555–60.
- Horedt, K. 1977.** *Die südsiebenbürgische Limesstrecke Dakiens*. Limes 10 Xanten, 331–8.
- Horn, H. G. 2002.** *Die Römer in Nordrhein-Westfalen*. Hamburg.
- Hügel, P. 1996.** *Cărămizi romane ștampilate descoperite la Cladova (jud. Arad)*. Ziridava 19–20, 73–8
- Hyland, A. 1993.** *Training the Cavalry. From Arrian's Tactica*. London.
- Ilieș, C., Cociș, S., Marcu, F., Tamba, D., Matei, Al. 2002.** *Raport privind cercetările arheologice de la Sutor (campania 2001)*. Studia UBB. Theologia Graeco-Catholica Varadiensis. Studia Historica XLVII/1, 131–49.
- Ionescu, D., Marinoiu, V. 1994.** *Cercetările arheologice de la Vîrtop-Bumbești-Jiu din anul 1993*. Litua 6, 52–6.
- Isac, D. 1979.** *Ala Siliana C.R. torquata et armillata in Dacia*. AMN 16, 39–67.
- Isac, D. 1987.** *Date noi cu privire la cohors II Britannica (milliaria)*, AMP 11, 175–80.
- Isac, D. 1991.** *Signacula aus Dakien*. SJ 46, 57–64.
- Isac, D. 1997.** *Castrele de cohortă și ală de la Gilău, Zalău (Ghid al monumentelor arheologice 6)*.
- Isac, D. 2001.** *Das Militärdiplom aus dem Jahr 151 n.Chr. von Samum (Cășeu) und die datierung der Prokurator des Macrinus Vindex in Dacia Porolissensis*, AMN 38/1, 49–60.
- Isac, D. 2003.** *Castrul roman de la SAMVM – Cășeu = The Roman auxiliary fort SAMVM-Cășeu*. Cluj-Napoca.
- Isac, D., Diaconescu, Al., Opreanu, C. 1983.** *Principia castrului de la Gilău*. AMN XX, 85–101.
- Isac, D., Hügel, P., Andreica, D. 1994.** *Praetoria in Dakischen Militäranlagen*. SJ 47, 40–64.

- Isac, D., Hügel, P., Andreica, D. 1994.** *Praetoria in Dakischen Militäranlagen*, SJ 47, 1994, 40–64.
- Isac, D., Isac, A. 1994.** *Noi date arheologice despre castrul roman de la Cincșor (jud. Brașov)*. EN 4, 103–12.
- Isac, D., Isac, A. 2000.** *Cășeiu*. CCA Deva 1999.
- Isac, D., Marcu, F. 1999.** *Die Truppen im Kastell von Cășeiu. Cohors II Br(ittanorum) milliaria und cohors I Britannica milliaria c.R. equitata Antoniniana*. Limes 17 Zaláu 1997, 585–98.
- Jarret, M. G. 1994.** *Non-legionary troops in Roman Britain. Part One, The Units*. Britannia 25, 35–8.
- Johnson, A. 1987.** Römische Kastelle des 1. und 2. Jahrhunderts n. Chr. in Britannien und in den germanischen Provinzen des Römerreiches. Mainz a. R.
- Johnson, P., Haynes, I. 1996.** *Architecture in Roman Britain* (Ed. by P. Johnson, I. Haynes). CBA Research Report 94, York.
- Kádár, J., Tagányi, K., Réthy, L. 1901.** Szolnok Dobokavármegyie monográphlaja. Dej IV.
- Keepie, L. 1984.** *The Making of the Roman Army, from Republic to Empire*. London.
- Kennedy, D. 1977.** *The ala and cohors I Britannica*. Britannia 8, 249–55.
- Kiechle, F. 1965.** *Die "Taktik" des Flavius Arrianus*. BerRGK 45, 1964, 87–129.
- Koenen, C. 1904.** *Novaesium, Das im Auftrag des rheinischen Provinzialverbandes vom Bonner Provinzialmuseum 1887–1900 gegrabene Legionslager*. BJ, 111–2.
- Kolbe, H.-G. 1974.** *Die Inschrift am Torbau der principia im Legionslager von Lambaesis*, MDAI (R) 81, 281–99.
- Kornemann 1907.** Klio 7, 105.
- Kortüm, K., Lauber, J. 2004.** Walheim I. Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 95, Stuttgart.
- Kovács, P. 2002.** *Civitas and castrum*. Specimina nova 16 (2000), 168–82.
- Kraft, K. 1951.** Zur Rekrutierung der Alen und Kohorten an Rhein und Donau. Bern.
- Künzl, E. 1983.** Medizinische Instrumente aus Sepulkralfunden der römischen Kaiserzeit. Köln—Bonn.
- Lander, J. L. 1984.** *Roman Stone Fortifications*. Los Angeles.
- Landes, A. 1979.** *Propuneri pentru o reconstituire a castrului roman de la Buciumi (I)*. AMP 3, 411–26.
- Landes, A., Gudea, N. 1980.** *Propuneri pentru o reconstituire grafică a castrului roman de la Buciumi (II). Clădirea comandamentului*. AMP 4, 211–27.
- Landes, A., Gudea, N. 1983.** *Propuneri pentru o reconstituire grafică a castrului de pe Pomet (Porolissum). I. Clădirea comandamentului*. AMP 7, 159–83.
- Landes, A., Gudea, N. 1984.** *Castrul roman de la Buciumi, propuneri pentru o reconstituire grafică*. AMP 8, 165–210.
- Landes-Gyemant, A., Gudea, N. 2001.** *Das Römerkastell von Buciumi. Vorschläge für eine grafische wiederherstellung*. SJ 51, 127–51.
- Lenoir, M. 1979 (ed).** *Hyginus Gromaticus. De Munition. Castrorum [sp.] (Pseudo-Hygin: Des Fortifications du Camp)*, Paris.
- Lőrincz, B. 1996 (1998).** *Eine Auxiliartruppe Dakiens in Pannonien*. Specimina Nova 12, 249–250.
- Lőrincz, B. 2001.** *Die römischen Hilfstruppen in Pannonien während der Prinzipatszeit. Teil I: die Inschriften*, Wien.
- Lőrincz, B., Petényi, S. 1994.** *Zwei neue Militärdiplome aus Pannonien*. ZPE 101, 197–204.
- Lupu, N. 1961.** *Săpăturile de la Boița*. MCA 7, 411–22.
- Lupu, N. 2003.** *Die römische Siedlung von Boița / Ochsendorf (Kreis Sibiu / Hermannstadt)*. *Forschungen zur Volks- und Landeskunde* 44–5, 2001–2002.
- MacDonald, G. 1934.** *G. The Roman Wall in Scotland*. Oxford.
- Macrea, M. 1939.** *Castrul roman de la Bologna. Săpăturile din vara anului 1936*. ACMIT 4, 1932–1938, 195–233.
- Macrea, M. 1944.** *Cumidava*. AISC 4, 234–61, 325–6.
- Macrea, M. 1949.** *Săpăturile arheologice de la Mehadia (Banat)*. Studii 2, 139–41.
- Macrea, M. 1957.** *Apărarea graniței de vest și nord-vest a Daciei pe timpul împăratului Caracalla*. SCIV 8/1–4, 215–52.
- Macrea, M. 1959.** *Șantierul arheologic Cașolț-Boița*. MCA VI, 407–3.

- Macrea, M. 1960.** *Epoca sclavagistă romană (sec. I-III e.n.)*. Istoria României 1, București, 345-96, 417-26, 447-76.
- Macrea, M. 1960a.** *Garnizoanele Cohortei VIII Raetorum*. Omagiu lui C. Daicoviciu. 339-52.
- Macrea, M. 1966.** *Organizarea provinciei Dacia*. AMN 3, 121-51.
- Macrea, M. 1969.** *Viața în Dacia romană*, București.
- Macrea, M., Buzdugan, L., Ferenczi, G., Horedt, K., Popescu, I., Russu, I. I. 1951.** *Despre rezultatele cercetărilor întreprinse de șantierul arheologic Sf. Gheorghe - Brețcu*. SCIV 2/1, 285-311.
- Macrea, M., Chirilă, E., Gudea, N., Lucăcel, V., Pop, C. 1969.** *Castrul roman de la Buciumi*. AMN 6, 149-57.
- Macrea, M., Chirilă, E., Gudea, N., Lucăcel, V., Pop, C. 1969a.** *O inscripție din pretoriul castrului roman de la Buciumi*. StComSibiu 14, 289-98.
- Macrea, M., Gudea, N., Moțu, I. 1993.** *Praetorium*. Castrul și așezarea romană de la Mehadia. București.
- Macrea, M., Lucăcel, V., Chirilă, E., Pop, C. 1965.** *Castrul roman de la Buciumi*. RM 2, 434.
- Macrea, M., Lucăcel, V., Chirilă, E., Pop, C. 1970.** *Castrul roman de la Buciumi*. SCSMI 1, 396-417.
- Macrea, M., Protase, D., Dănilă, Șt. 1967.** *Castrul roman de la Orheiul Bistriței*. SCIV 18/1, 113-12.
- Macrea, M., Protase, D., Rusu, M. 1960.** *Castrul roman de la Tihău*. MCA VII, 384-6.
- Macrea, M., Protase, D., Rusu, M. 1961.** *Șantierul arheologic Porolissum*. Materiale 7, 360-90.
- Macrea, M., Rusu, M., Mitrofan, I. 1962.** *Șantierul arheologic Porolissum*, Materiale 8, 485-504.
- Macrea, M., Rusu, M., Winkler, I. 1959.** *Șantierul arheologic Gilău*. Materiale V, 1959, 453-60.
- Manning, W.H. 1975.** *Roman military timber granaries in Britain*. SJ, 105-29.
- Marcu, F. 2004.** *Military tile-stamps as a guide for the garrisons of certain forts in Dacia*. Orbis Antiquvs. Studia in honorem Ioannis Pisonis, 2004, 570-94.
- Marcu, F. 2004a.** *Comments on the identity and deployment of Cohortes I Brittonum*. AMN 39-40/1, 2002-3 (2004), 519-34.
- Marcu, F. 2005.** *"Geminari castra" in Dacia*. Limes 19 Pécs 2003 (2005), 703-11.
- Marcu, F. 2005a.** *Ala I Flavia Gaetulorum oder Gallorum?*. EN 14-15, 2004-2005, 73-80.
- Marcu, F. 2006.** *The valetudinarium at Ilișua*. Stvdia in Honorem Demetrii Protase. Cluj-Napoca, 2006, 461-70.
- Marcu, F. 2007a.** *Places of worship in the forts of Dacia*. AMN 41-42/1, 2004-2005 (2007), 75-105.
- Marcu, F. 2007b.** *Scholae in the forts of Dacia*. Dacia NS 50, 259-69.
- Marcu, F. 2007c.** *Locus gromae la Arutela*. Dacia Felix. Studia Michaeli Bărbulescu Oblata, Cluj-Napoca, 2007, 284-6.
- Marcu, F. 2009.** *The adjacent forts of Germania Superior and Dacia*. SJ 55 (2007-2008), 2009, 133-54.
- Marcu, F., Țentea, O. 2000.** *Observații asupra ceștii dacice din perioada romană și post-romană*. Studii de istorie a Transilvaniei 4, 67-85 = RB 14, 2000, 67-85.
- Marinoiu, V. 1992.** *Cercetările arheologice de la Vârtoș-Bumbești-Jiu*. Litua 5, 24-33.
- Marinoiu, V. 2003.** *Unitățile militare care au staționat în castrul roman de la Bumbești Jiu*. Litua 9, 57-66.
- Marinoiu, V., Bratu, O. 2000.** *Cercetările arheologice de la Bumbești-Jiu, județul Gorj, campaniile 1997-1999*. Litua 8, 25-34.
- Marinoiu, V., Hortopan 2003.** *Cercetările arheologice efectuate la Bumbești-Jiu-„Vârtoș” și Ciocadia-„Codrișoare”, județul Gorj (campaniile 2000-2001)*. Litua 9, 35-55.
- Marsigli, A. F. 1726.** *Danubius Pannonico-Mysicus I-VI*. Amsterdam-Haga.
- Matei, Al. V. 1997.** *Un nou castru roman descoperit la Porolissum?* Civilizația romană, 231-46.
- Matei, Al. V., Bajusz, I. 1997.** *Castrul roman de la Romita-Certiae, Zalău (Ghid al monumentelor arheologice 4)*.
- Matei-Popescu, F. 2004.** *Trupele auxiliare ale armatei romane din Moesia Inferior*. SCIVA 52-53, 2001-2002 (2004), 173-242.
- Milner, N. P. 1993.** *Vegetius. Epitome of Military Science* (trans. N. P. Milner). Liverpool.
- Mitrofan, I., Moldovan, Gh. 1968.** *Castrul roman de la Sighișoara*. AMN 5, 99-109
- Moga, M. 1965.** *Tibiscum*. RevMuz 2, 433.
- Moga, M. 1970.** *Tibiscum. Raport preliminar asupra cercetărilor din anul 1964*. SCSMI 1, 383-95.

- Moga, M. 1970a. *Garnizoana romană la Tibiscum*. AMN 7, 135–49.
- Moga, M. 1974. *Știri noi despre garnizoana militară de la Tibiscum*. Tibiscus 3, 129–32.
- Moga, M. 1985. *Din istoria militară a Daciei. Legiunea XIII Gemina*, Cluj-Napoca.
- Moga, M., Medeleț, Fl., Benea, Doina, Petrovsky, R. 1979. *Cercetările arheologice din castrul Tibiscum. Campania 1976*. MCA 13 Oradea, 215–8.
- Mommsen, Th. 1884. Hermes 19, 219–34.
- Niegebaur, J.F. 1851. *Dakien aus den Überresten des klassischen Altertums*. Kronstadt.
- Nemeth, E. 2002. *Das Verteidigungssystem im südwesten des Römischen Dakien (Sistemul defensiv din sud-vestul Daciei Romane)*. PhD thesis. Cluj-Napoca.
- Nemeth, E. 2005. *Armata în sud-vestul Daciei Romane*. Timișoara.
- Nemeti, S. 1999. *Castrul de trupă auxiliară de la Potaissa*. Napoca 1880 de ani de la începutul vieții urbane, Cluj-Napoca, 194–204.
- Nesselhauf, H. 1964. *Sex. Iulius Possessor*. MadrMitt 5, 180–4.
- Nollé, J., Roxan, M. 1997. *Militärdiplom für einen in Britannien entlassenen 'Daker'*. ZPE 117, 269–75.
- Nuber, H.U. 1986. *Das Steinkastell Hofheim (Main-Taunus-Kreis)*. Limes 13 Aalen 1983, Stuttgart.
- Opreanu, C. 1998. *Dacia romană și Barbaricum*. Timișoara
- Orbán, B. 1871. *Székelyföld leirása I–VI*. Budapest.
- Oxé, A. 1909. *Die ältest Truppenverteilung im Neusser Legionslager*. BJ 118, 76–84.
- Oxé, A. 1939. *Zu Hygins Lagerbeschreibung*. SJ 9, 65–72.
- Panaiteșcu, Em. 1929. *Castrul roman de la Cășei. Din cercetările nouă*. ACMIT, 321–42.
- Panaiteșcu, Em. 1929a. *Le limes dacique. Nouvelles fouilles et nouveaux résultats Academie Romaine*. BSH XV, 73–82.
- Patsch, C. 1937. *Der Kampf um dem Donaauraum unter Domitian und Trajan*. SBak Wien.
- Paulovics, I. 1944. *Dacia keleti határvonala és az ugynevezet "dák"-ezüstkincsek kérdése (Az Erdélyi Magyar Tudományos Intézet)*. Cluj.
- Petculescu, L. 1981. *Castrul de la Micia (Vețel, jud. Hunedoara) în cadrul sistemului de apărare al Daciei romane*. MN 5, 109–14.
- Petculescu, L. 1983. *Cercetări arheologice din castrul Micia*. CA 6, 45–50.
- Petculescu, L. 1984. *Săpăturile arheologice din castrul Micia*. CA 7, 117–20.
- Petculescu, L. 1987. *Roman Military Granaries in Dacia*. SJ 43, 66–76.
- Petolescu, C. C. 1974. *Note epigrafice (II)*. SCIVA 25/4, 595–604.
- Petolescu, C. C. 1974a. *L'organisation de la frontière romaine dans la vallée du Mureș (Dacia superior)*. Limes 10 Xanten 1974 (1977). Köln-Bonn, 367–72.
- Petolescu, C. C. 1976. *Note epigrafice (III)*. SCIVA, 27/3, 393–8.
- Petolescu, C. C. 1979. *Contribuții privind organizarea administrativă a Daciei romane*. RI 32/2, 259–7.
- Petolescu, C. C. 1979a. *Palmyreni sagittarii qui sunt in Dacia Superiore*. SCIV 30/1, 105–10.
- Petolescu, C. C. 1981. *Cu privire la cronologia castrelor romane din Oltenia și Muntenia*. StComCâmpulung, 3–6.
- Petolescu, C. C. 1982. *Contribuții la istoria Munteniei în sec. II e.n.* RI 1, 65–77.
- Petolescu, C. C. 1983. *Sex. Iulius Possessor*. SCIVA 34/1, 42–56.
- Petolescu, C. C. 1984. *Cronica epigrafică a României, III, (1983)*. SCIVA 35/4, 375–82.
- Petolescu, C. C. 1985. *L'organisation de la Dacie sous Trajan et Hadrien*. Dacia N.S. 29, 45–55.
- Petolescu, C. C. 1986. *Reorganizarea Daciei sub Marcus Aurelius*. StCl 24, 131–8.
- Petolescu, C. C. 1987. *Quatre contributions à la prosopographie des milices equestres*. Dacia N.S. 31/1–2, 157–73.
- Petolescu, C. C. 1995. *Unitățile auxiliare din Dacia romană (I)*. SCIVA 46/1, 35–51.
- Petolescu, C. C. 1995a. *Unitățile auxiliare din Dacia romană (II)*. SCIVA 46/3–4, 237–75.
- Petolescu, C. C. 1995b. *Un edificiu militar roman. Basilica*. AO S.N. 10, 29–36.
- Petolescu, C. C. 2000. *Provincia Dacia Inferior (Malvensis). Discuții și ipoteze*. Oltenia 12, 74–9.

- Petolescu, C. C. 2001.** *O nouă diplomă militară privitoare la provincia Dacia Inferior.* Oltenia 13, 69–76.
- Petolescu, C. C. 2002.** *Auxilia Daciae.* București.
- Petolescu, C. C., Corcheș, A. 2002.** *O nouă diplomă militară privitoare la provincia Dacia Superior.* Drobeta 11–12, 120–5.
- Petolescu, C. C., Mărghitan, L. 1974.** *Țigle și cărămizi ștampilate din thermele de la Micia.* MN 1, 247–58.
- Petolescu, C. C., Popescu, A.-T. 2004.** *Ein neues Militärdiplom für die Provinz Moesia Inferior.* ZPE 148, 269–76.
- Petrescu, S. M., Rogoza, P. 1990.** *Tibiscum – principia castrului mare de piatră (I).* Banatica 10, 107–36.
- Petrikovits, H. von 1975.** *Die Innenbauten römischer Legionslager während der Prinzipatszeit,* Düsseldorf-Opladen.
- Petrovsky, R. 2005.** *Das Militärdiplom des Atrectus.* Mitteilungen des Historischen Vereins der Pfalz 102, 7–64.
- Pferdehirt, B. 2004.** *Katalog über die Militärdiplome im Besitz des Römisch-Germanischen Zentralmuseums.* Kataloge zur vor- und frühgeschichtlichen Altertümer, Band 37/1. Mainz.
- Pflaum, H.-G. 1960.** *Les carrières procuratoriennes équestres sous le Haut-Empire romain I.* Paris.
- Picard, G. 1968.** *Un témoignage sur le commerce des objets d'art dans l'Empire Romain. La statue de bronze de l'« Apollon » de Mactar, offerte par S. Julius Possessor.* RA 1, 297–314.
- Pintilie, M. 1999–2000.** *Mithraea în Dacia.* EN 9–10, 231–44.
- Piso, I. 1979.** *Epigraphica (VI). Inschriften aus Sarmizegetusa.* StCl 18, 137–44.
- Piso, I. 1983.** *Epigraphica (XIV). Inscriptii de la Apulum.* AMN 20, 103–11.
- Piso, I. 1985.** *Zur Entstehung der Provinz Dacia Porolissensis.* Römische Geschichte, Altertumskunde und Epigraphik. Festschrift A. Betz, Wien, 471–81.
- Piso, I. 1993.** *Fasti Provinciae Daciae I. Die senatorischen Amtsträger,* Antiquitas 43, Bonn.
- Piso, I. 1999.** *L'Ala Flavia en Dacie.* AMN 36/1, 81–90.
- Piso, I. 2000.** *Les légions dans la province de Dacie.* Les légions de Rome sous le Haut-Empire. Actes du Congrès de Lyon (17–19 septembre 1998) (ed. Y. Le Bohec), Lyon, 205–25.
- Piso, I. 2000a.** *Ti. Claudius Constans, procureur de Dacie Inférieure et de Maurétanie Césarienne.* AMN 37, 231–42.
- Piso, I. 2001.** *Studia Porolissensia (I). Le temple dolichénien.* AMN 38/1, 221–38.
- Piso, I., Benea, D. 1984.** *Das Militärdiplom von Drobeta.* ZPE 56, 263–95 = *Diploma militară de la Drobeta.* AMN 21, 111–24.
- Piso, I., Benea, D. 1999.** *Epigraphica Tibiscensia.* AMN, 36, I.
- Piso, I., Isac, D., Diaconescu, Al., Opreanu, C. 1983.** *Castrul roman de la Căței.* MCA 15 Brașov 1981, 297–8.
- Piso, I., Marcu, F. 2009.** *La COHORS I AUGUSTA ITURAEORUM en Dacie.* AMN 43 (sub tipar).
- Piso, I., Pescaru, A., Pescaru, E. 2004.** *Der Tribun C. Valerius Valerianus in Germisara.* AMN 39–40/1 2002–2003, 197–200.
- Piso, I., Rogoza, P. 1985.** *Ein Apolloheiligtum in der Nähe von Tibiscum.* ZPE 58, 211–4.
- Piso, I., Rusu, A. 1990.** *Nymphaeum-ul de la Germisara.* RMM(MIA) 59/1, 9–17.
- Pitts, L. F., StJoseph, J. K. 1985.** *Inchtuthill. The Roman Legionary Fortress.* BMS 6. London.
- PME – H. Devijver, Prosopographia Militiarum Equestrium quae fuerunt ab Augusto ad Gallienum,** Leuven, Pars Prima, Litterae A–I, 1976 = PME I; Pars Secunda, Litterae L–V Ignoti – Incerti, 1977 = PME II; Pars Tertia, Indices, 1980 = PME III; Pars Quarta, Supplementum I, 1987 = PME IV; Pars Quinta, Supplementum II, 1993 = PME V; Pars Sexta, Laterculi Alarum – Cohortium – Legionum, 2001 = PME VI.
- Poenaru-Bordea, Gh., Vlădescu, C. M. 1969.** *Date noi în legătură cu castrul Arutela,* SCIV 20/1, 101–12.
- Poenaru-Bordea, Gh., Vlădescu, C. M. 1979.** *Săpăturile de salvare de la castrul Arutela din 1978.* MCA 13 Oradea, 235–6.
- Poenaru-Bordea, Gh., Vlădescu, C. M., Stoica, D. 1979.** *Arutela V. Campania de săpături de salvare din anul 1978.* SMMIM 12, 124–5.
- Pop, I. I. 1975.** *Cohors Numidarum Antoniniana la Feldioara, Făgăraș, jud. Brașov.* SCIVA 26/1, 289–92.
- Pop, I. I. 1983.** *Atestări recente ale cohortei II Flavia Bessorum la Cincșor.* Cumidava 13, 43–8.

- Popa, C. 1990.** *Castrul de la Hoghiz în lumina unor noi descoperiri monetare.* SCIVA 41/3–4, 309–12.
- Popescu, Em., Petolescu, C. C., Cioflan, T. 1984.** *Distrugerea castrului roman de la Câmpulung (Jidova).* StComCâmpulung 3, 15–7.
- Popescu, Em., Popescu, E. 1968.** *Castrul roman Jidova, Cîmpulung.* StComPitești 1, 67–79.
- Popescu, Em., Popescu, E. 1970.** *Raport preliminar asupra săpăturilor efectuate în anii 1962–1967 în castrul roman de lângă Cîmpulung-Muscel (Jidova).* MCA 9, 251–63.
- Premmerstein, A. von 1909.** *Die Dreiteilung der Provinz Dacia.* Wiener Eranos. Zur fünfzigsten Versammlung deutscher Philologen und Schulmänner in Graz, 259–65.
- Protase, D. 1957.** *Două inscripții latine inedite de la Ilișua.* Materiale IV, 319–23.
- Protase, D. 1961.** *Noi monumente sculpturale romane din nordul Daciei.* Apulum 4, 1961, 127–38.
- Protase, D. 1962.** *Le coorthi Hispanorum militaria e I Ubiorum in Dacia.* Dacia N.S. 6, 505–8.
- Protase, D. 1965.** *Castrul roman de la Călugăreni.* AMN 2, 209–14.
- Protase, D. 1967.** *Legiunea a IIII a la nordul Dunării și apartenența Banatului și Olteniei de vest la provincia Dacia.* AMN 4, 67 sqq.
- Protase, D. 1975.** *Castrul roman de la Surducul Mare (jud. Caraș-Severin).* Banatica 3, 345–8.
- Protase, D. 1977.** *Castre romane cu dublu zid de incintă descoperite în Dacia.* Sargetia 13, 191–202 = *Römische Lager mit doppelten Umfassungsmauern in Dakien.* Limes 11 Székesfehérvár, 303–20.
- Protase, D. 1994.** *Castrul roman de la Tihău (jud. Sălaj) în lumina cunoștințelor actuale.* EN 4, 75–102.
- Protase, D. 1995.** *Legiunea IIII Flavia la nordul Dunării și apartenența Banatului și Olteniei de vest la provincia Dacia,* Orizonturi daco-romane, Cluj-Napoca.
- Protase, D., Ardevan, R. 1983.** *Săpăturile de salvare de la Gherla.* MCA 15 Brașov 1981, 299–303.
- Protase, D., Dănilă, Șt. 1968.** *Un castru roman de pământ la Livezile pe granița de nord a Daciei.* SCIV 19, 531–40.
- Protase, D., Gaiu, C., Marinescu, G. 1997.** *Castrul roman de la Ilișua.* Bistrița.
- Protase, D., Gudea, N., Ardevan, R. 2008.** *Din istoria militară a Daciei romane. Castrul roman de interior de la Gherla.* Timișoara.
- Protase, D., Zrinyi, A. 1975.** *Castrul roman de la Brîncovenesti.* Marisia 5, 57–69.
- Protase, D., Zrinyi, A. 1992.** *Inscripții și ornamente sculpturale din castrul roman de la Brîncovenesti (jud. Mureș).* EN 2, 95–110.
- Protase, D., Zrinyi, A. 1993.** *Castrul roman de la Brîncovenesti, jud. Mureș.* MCA 17 Ploiești, 295–8.
- Protase, D., Zrinyi, A. 1994.** *Castrul roman și așezarea civilă de la Brîncovenesti.* Marisia XXIII–XXIV, 75–169.
- Rădulescu, A., Bărbulescu, M. 1981.** *Sur les légats de Trajan (103–108 de N.É).* Dacia N.S. 25, 353–8.
- Rakob, F., Storz, S. 1974.** *Die Principia des römischen Legionslagers in Lambaesis.* Mitteilungen des Deutschen Archäologischen Instituts. Römische Abteilung (MDAI-R) 8, 253–80.
- Rickman, G. 1971.** *Roman Granaries and Stores Buildings.* Cambridge.
- Ritterling, Em. 1924.** RE 12, col. 1719.
- Roth, J. 1994.** *The Size and organization of the Roman Imperial Legion.* Historia 43, 346–62.
- Rowell, H. T. 1936.** *Numerus.* RE 17, 1327–1341, 2537–2554.
- Roxan, M. M. 1973.** *The auxilia of Mauretania Tingitana.* Latomus xxxii, 838–55.
- Roxan, M. M. 1997.** *An Auxiliary/Fleet Diploma of Moesia inferior. 127 August 20.* ZPE 118, 287–99.
- Roxan, M. M., Eck, W. 1997.** *A Diplom of Moesia Inferior. 125 Iun. 1.* ZPE 116, 193–203.
- Ruscu, D., Ruscu, L. 1996.** *EKTAΞΙΣ KATA AΛANΩΝ a lui Arrian și strategia defensivă a Imperiului Roman în epoca hadrianică. Die Schlachtordnung gegen die Alanen de Arrian.* EN 6, 205–59.
- Russu, I. I. 1956.** *Materiale epigrafice în Muzeul raional Dej.* ActMuz, 118–33.
- Russu, I. I. 1957.** *J. Szilágyi. A Dáciai erődrendszer helyőrségei és a katonai téglabélyegek (Die Besatzungen des Verteidigungssystem von Dakien und ihre Ziegelstempel).* DissPann 2/21, Budapest 1946, 91 p. et XX pl. Dacia N.S. I, 360–3.
- Russu, I. I. 1959.** *Castrul și garnizoana de la Buciumi.* SCIV X/2, 305–20.
- Russu, I. I. 1967.** *Tracii în Dacia romană.* AMN 4, 85–105.

- Russu, I. I. 1972. *Auxilia provinciae Daciae*. SCIV 23/1, 1972, 63–77.
- Russu, I. I. 1973. Dacia și Pannonia Inferior în lumina diplomei militare din anul 123. București.
- Russu, I. I. 1974. *Contribuții epigrafice la istoria Daciei romane, I–II*. AIIA 17, 36–59.
- Russu, I. I. 1977. *Garnizoana castrului roman de la Brîncovenеști (jud. Mureș) Ala I Numeri Illyricorum*. SCIVA 28/1, 93–104.
- Russu, I. I. 1978. *Inscripțiile Daciei în AnnEp, 1974*. SCIV 29/4, 555–62.
- Rusu, M. 1979. *Castrul roman de la Gilău*. StComCaransebeș, 153–94.
- Rusu-Pescaru, A., Alicu, D. 2000. *Templele romane din Dacia*, Deva.
- Sablayrolles, R. 1984. *Bibliographie sur l'epitoma rei militaris de Vegece*. Armée romaine et Provinces 3, 139–46.
- Schönberger, H. 1975. *Kastell Künzing-Quintana*. Limesforschungen 13, Berlin.
- Schönberger, H. 1979. *Valkenburg Z.H.: Praetorium oder Fabrica?* Germania 57, 135–41.
- Schulten, A. 1929. *Numantia: die Ergebnisse der Ausgrabungen 1905–19, vol.4*. München.
- Seeck, O. 1876. *Die Zeit des Vegetius*. Hermes xi, 61–83.
- Sherk, R.K. 1974. *Roman geographical exploration and military maps*. ANRW II.1, 534–62.
- Shotter, D. 1973. *Numeri Barcariorum: a note on RIB 601*. Britannia 4, 206–9.
- Snape, Bidwell 2002 = AA 2002.
- Sommer, C.S. 1995. “Where did they put the horses?”. *Überlegungen zu Aufbau und Stärke römischer Auxiliärtruppen und deren Unterbringung in den Kastellen*. In: *Provinzialrömische Forschungen. Festschrift für Günter Ulbert zum 65. Geburtstag*, Espelkamp, 149–68.
- Sommer, C.S. 1998. *Wohin mit den Pferden? Stallbaracken sowie Aufmarsch- und Übungsplätze in römischer Zeit*. Fragen zur römischen Reiterei. Kolloquium zur Ausstellung “Reiter wie Statuen aus Erz. Die römische Reiterei am Limes zwischen Patrouille und Parade.” im Limesmuseum Aalen (25–26.02.1998), Stuttgart, 84–90.
- Southern, P. 1989. *The numeri of the Roman Imperial Army*. Britannia 20, 81–140.
- Spaul, J. 1994. *Ala. The Auxiliary Cavalry Units of the Pre-Diocletianic Imperial Roman Army*. Farnborough.
- Spaul, J. 2000. *Cohors². The evidence for and a short history of the auxiliary infantry units of the Imperial Roman Army*. BAR IS 841, London.
- Speidel, M. P. 1977. *A Tribune of Cohors III Campestris*. Apulum 15, 631–3.
- Speidel, M. P. 1978. *Guards of the Roman Armies*. Bonn.
- Speidel, M. P. 1970. *The captor of Decebalus: a new inscription from Philippi*. JRS 40, 142–53.
- Speidel, M. P. 1973. *Numerus Syrorum Malvensium. The transfer of a Dacian army unit to Mauretania and its implications*. Dacia N.S. XVII, 169–77.
- Speidel, M. P. 1974. *Ala I Claudia Gallorum Capitoniana*. In *Memoriam Constantin Daicoviciu = Roman Army Studies 1*, Amsterdam, 1984, 217–21.
- Speidel, M. P. 1975. *The Rise of Ethnic Units in the Roman Imperial Army*. ANRW II/3, 202–31.
- Speidel, M. P. 1977a. *A thousand Thracian Recruits for Mauretania Tingitana*. *Antiquités Africaines Tome 11*, 167–73.
- Speidel, M. P. 1977b. *Pannonian troops in the Moorish war of Antoninus Pius*. Limes 11 Székesfehérvár, 129–35.
- Speidel, M. P. 1983. *Exploratores. Mobile Elite Units of Roman Germany*. *Epigraphische Studien 13*, 63–78.
- Stanciu, I. 1985. *Considerații asupra clădirii comandamentului castrelor auxiliare din Dacia*. AMP 9, 219–46.
- Stein, A. 1944. *Die Reichsbeamten von Dazien*. Budapest.
- Stein, E. 1932. *Die Kaiserlichen Beamten und Truppenkörper im Römischen Deutschland unter dem Prinzipat*. Wien.
- Stiglitz, H., Kandler, M., Jobst, W. 1977. *Carnuntum*. ANRW II.6, 583–730.
- Stoia, A. 1981. *Les fouilles archéologiques en Roumanie (1980)*. Dacia N.S. 25, 363–79.
- Stoicovici, E. 1982. *Activități metalurgice la Porolissum (Moigrad)*. AMP 6, 113–22.
- Stoicovici, E., Gudea, N. 1983. *Mortare de la Porolissum (castrul de pe Pomăt)*. AMP 7, 185–94.
- Stolle, F. 1912. *Das Lager und Heer der Römer*. Strassburg.

- Strobel, K. 1984.** Untersuchungen zu den Dakerkriegen Trajans. Studien zur Geschichte des mittleren und unteren Donaupraumes in der Hohen Kaiserzeit. Bonn.
- Syme, R. 1959.** *The Lower Danube under Trajan*. JRS 49, 26–33.
- Székely Zs. 1975.** *Noi descoperiri din epoca romană din sud-estul Transilvaniei*. SCIVA 26/3, 343–51.
- Székely, Zs. 1943.** A Komollói erődített római tábor. Jelentés a Székely Nemzeti Múzeum 1942. évi ásátásáról. Kolozsvár.
- Székely, Zs. 1944.** *Az Ala I Asturum emléke a Székelyföldön*. ErdMuz 69, 485–6.
- Székely, Zs. 1980.** *Castrul roman de la Olteni*. Aluta 10–11, 1978–1979, 55–75.
- Szilágyi, J. 1946.** A Dáciai erődrendszer helyőrségei és a katonai téglabélyegek. Die Besatzungen des Verteidigungssystem von Dakien und ihre Ziegelstempel. DissPann 2/21, Budapest.
- Tab. Vindol.** = *Tabulae Vindolandeses*. Bowman, A.K., Thomas, J.D. Vindolanda: The Latin Writing-Tablets. London 1983 (*Tab. Vindol. I*); The Vindolanda Writing-Tablets. London. 1994 (*Tab. Vindol. II*); The Vindolanda Writing-Tablets. London. 2003 (*Tab. Vindol. III*).
- Tamba, D. 1997.** *Castrul roman de la Românași-Largiana, Zalău* (Ghid al monumentelor arheologice 3).
- Taylor, D. J. A. 2000.** *The forts on Hadrian's Wall. A comparative analysis of the form and construction of some buildings*. BAR 305, Oxford, 2000.
- Téglás, I. 1910.** *Romok és leletek a Tordai Tündérhegyen*. ArchÉrt 30, 123–30.
- Țentea, O. 2004.** *Cohors I Ituraeorum sagittariorum equitata milliaria*. Orbis Antiquus. Studia in honorem Ioannis Pisonis, 806–815.
- Țentea, O., Matei-Popescu, F. 2004.** *Alae et Cohortes Daciae et Moesiae. A review and updating of J. Spaul's Ala and Cohors*. AMN 39–40/1, 2002–3 (2004), 259–96.
- Teodor, E. S., Bondoc, D., Duțescu, M., Ștefan, D., Răduță, S. 2004.** *Răcarii de Jos. com. Brădești, jud. Dolj*. CCA 2003, nr. 145.
- Thulin, C. 1913.** *Corpus Agrimensorum Romanorum*. Leipzig.
- Timoc, C. 2000.** *Despre castrul și vicus-ul militar de la Sânpaul (jud. Harghita)*. Apulum 37/1, 397–400.
- Tocilescu, Gr.G. 1900.** *Fouilles et recherches archéologiques en Roumanie*. Bucarest.
- Toll, N.P. 1949.** *Fibulae. The Excavations at Dura Europos. Final Report IV, 4, 1. The Bronze Objects*. New Haven 1949, 45–69.
- Torma, C. 1864.** *Adalék észak-nyugati Dácia föld és feliratához*. Budapest.
- Torma, C. 1864–5.** *Az Erdélyi Múzeum – Egylet Évkönyvei 3*. Cluj. 1865.
- Torma, C. 1880.** *A limes dacicus felső része*. Budapest.
- Tortzen, C.G., Saxtorph, N. M. 2002.** *Acies contra Alanos: Arrian on Military Tactics*. Ancient History Matters (ed. K. Ascani, V. Gabrielsen, K.Kvist, A. Rasmusen). [Analecta Romana Instituti Danici, Supplementa, 30], 221–6.
- Tóth, E. 1978.** *Porolissum. Das Castellum in Moigrad. Ausgrabungen von A. Radnóti, 1943*. Régészeti Füzetek II/19, Budapest.
- Tudor, D. 1940.** *Castra Daciae Inferioris. I. Castrele romane din Bumbesti-Gorj. I castri romani di Bumbesti-Gorj (Romania)*. BCMI 33, 18–33.
- Tudor, D. 1940.** *Castra Daciae Inferioris. II. Castrul și așezarea romană de la Slăveni-Romanași. Il castro romano di Slăveni, Romanași (Romania)*. BCMI 33, 34–8.
- Tudor, D. 1944.** *Sextus Iulius Possesor in Dacia*. În amintirea lui C. Giurescu, București, 523–31.
- Tudor, D. 1944a.** *Granița de NE a Daciei inferioare*. RIR 14, 157–65.
- Tudor, D. 1955.** *Considerații asupra unor cercetări arheologice făcute pe limes Transalutanus*. SCIV 6/1–2, 87–99.
- Tudor, D. 1964.** *Pedites singulares à Buridava*. Dacia N.S. 8, 345–52.
- Tudor, D. 1974.** *Basilica castrensis de la Slăveni pe Olt*. Drobeta 1, 47–53.
- Tudor, D. 1978.** *Oltenia romană*⁴, București.
- Tudor, D. 1981.** *Comandamentele militare de la Praetorium în Dacia*. SCIV 32/1, 76–88.
- Tudor, D. 1982.** *Materiale arheologice din castrul Praetorium I (Copăceni, jud. Vâlcea) descoperite de Tocilescu, G. Drobeta 5*, 49–78.

- Tudor, D., Davidescu, M. 1976.** *Săpăturile arheologice din castrul roman de la Cătunele, jud. Gorj.* Drobeta 2, 62–79.
- Tudor, D., Poenaru-Bordea, Gh., Vlădescu, C. M. 1969.** *Rezultatele primelor două campanii de săpături arheologice (1967–1968) în castrul roman din Poiana Bivolari, orașul Călimănești, Arutela, I, II.* SMMIM 2–3, 8–45.
- Vlădescu, C. M. 1983.** *Armata romană în Dacia Inferior, București.*
- Vlădescu, C. M. 1986.** *Fortificațiile romane din Dacia Inferior, Craiova.*
- Vlădescu, C. M. 1986a.** *Complexul de fortificații de la Bumbesti și rolul lor în răspândirea romanității.* Litua 3, 132–7.
- Vlădescu, C. M., Poenaru-Bordea, Gh. 1978.** *Cercetări arheologice în castrul roman de la Arcidava, satul Enoșești, comuna Piatra-Olt, jud. Olt.* SMMIM 11, 137–42.
- Vlădescu, C. M., Poenaru-Bordea, Gh. 1983.** *Cercetările arheologice în castrul roman de la Racovița (jud. Vâlcea) și zona aferentă.* MCA 15 Brașov, 345–9.
- Wagner, W. 1938.** *Dislokation der Auxiliarformationen in den Provinzen Noricum, Pannonien, Moesien und Dakien von Augustus bis Diokletianus, Berlin.*
- Wagner, W. 1963.** *Zur ala Pansiana, eine epigraphische Nachlese.* Germania 41, 317–27.
- Walthew, C. V. 1995.** *Roman Basilica: a Progress Report.* Classics Ireland 2.
- Weiß, P. 1997.** *Neue Militärdiplome,* ZPE 117, 227–68.
- Weiß, P. 2002.** *Neue Diplome für Soldaten des Exercitus Dacicus,* ZPE 141, 241–251.
- Wilmott, T. 1997.** *A New Building Type in an Auxiliary Fort. The Birdoswald Basilica and its discovery.* Limes XVI 1995, 581–6.
- Wilson, D. R. 1974.** *Roman Britain in 1973.* Britannia 5, 397–460.
- Wilson-Jones, M. 2000.** *Principles of Roman architecture.* Singapore.
- Wolff, H. 1975.** *Miscellanea Dacica.* AMN 12, 139–58.
- Wollmann, V. 1974.** *Cohors I Cannanefatium in Dakien.* Germania 52, 150–3.
- Wollmann, V. 1996.** *Mineritul metalifer, extragerea sării și carierele de piatră în Dacia romană.* BMN 13, Cluj-Napoca.
- Wollmann, V., Bot, Gh. 1974.** *Despre castrul și garnizoana romană de la Tihău.* In Memoriam C. Daicoviciu, 429–40.
- Zahariade, M. 1976.** *Trupele de origine hispanică în Dacia.* SCIV 27/4, 477–98.
- Zahariade, M. 1977.** *Addenda et corrigenda.* SCIVA 28/2, 261–5.
- Zangemeister, K. 1895.** *Neue Heidelberger Jahrbuch* 5, 81 sqq.
- Zanier, W. 1988.** *Römische dreiflügelige Pfeilsptizen,* SJ, 44, 7–25.
- Zrinyi, A., Petică, M. 2000.** *Cercetări arheologice pe limesul estic al Daciei romane. Săpăturile din anul 1997 de la Brâncovenești (jud. Mureș).* Marisia 26, 327–30.

INDEX

A

Aalen, 85, 152, 232, 245, 247, 251, 254
Adianum, 154
Africa, 23, 78, 172, 205, 206
Agrij, 36, 79, 101
ala:
 I Asturum, 114, 189, 204, 207, 255
 I Batavorum, 127, 152, 185, 244
 I Bosporanorum, 128, 248
 I Claudia, 235
 I Claudia Gallorum Capitoniana, 186, 187, 206, 236, 254
 I Flavia Augusta Britannica civium Romanorum, 70
 I Flavia Gaetulorum, 186, 250
 I Flavia Gallorum, 192, 200
 Gallorum et Bosporanorum, 129, 186, 248
 Gallorum Flaviana, 187
 I Hispanorum, 144, 183, 184, 206, 208, 227, 228, 235
 I Numeri Illyricorum, 119, 254
 Siliana, 12, 78, 155, 248
 I Tungrorum Frontoniana, 79, 80, 85, 86, 117, 118, 155
Albota, 6, 177
Augustae, 30, 236

B

Balmuildy, 14, 47, 62, 107, 133
Băneasa, 6, 177, 178, 217, 244
Bar Hill, 63, 137
Barcariorum, 201, 254
barrack, 8, 14, 15, 18, 23, 28, 32, 33, 35–38, 44–52, 64–67, 70, 71, 75–78, 83–85, 98, 99, 101, 115, 118, 126, 130, 134–138, 144, 150, 152–154, 156–158, 160, 161, 168–170, 182, 191, 193, 197, 198, 202, 216, 223, 225, 227, 233–235, 237, 240, 241, 245, 248
Bârsești, 199, 237, 238
Benwell, 31, 70, 75, 95, 103, 126, 212, 229
Bingen, 139
Birrens, 14, 47, 70, 101, 133, 212, 244
Bivolari, 6, 172, 177, 178, 256
Boița, 6, 177, 184, 249

Bologa, 5, 17, 26, 27, 28, 32, 34–36, 54, 99, 107, 118, 190, 219, 231, 246, 247, 249
Boroșneul Mare, 6, 185–189, 192, 200, 205, 207, 208
Brâncovenești, 5, 118–120, 253, 256
Brecon Gaer, 58, 211, 228
Brețcu, 6, 177, 189–192, 200, 246, 250
Britannia, 9, 11, 13, 14, 19, 20, 31, 34, 47, 51, 53, 58, 60, 63, 67–69, 83, 93, 97, 103, 108, 110, 112, 114, 125, 126, 130, 133–135, 147, 150, 151, 162, 168, 173, 188, 196, 201, 204, 210, 212, 222, 228–230, 237, 239, 244–246, 248, 249, 254, 256
Buciumi, 5, 12–15, 28, 31, 33, 34, 36–38, 41, 42, 44, 46, 47, 49–53, 70, 89, 99, 107, 244, 247, 249, 250, 253
Budapest, 251, 253, 255
Bulci, 117, 145
Bumbești, 5, 100, 120, 121, 160, 172, 174, 177, 209, 237, 238, 244, 248, 250, 255, 256
Burgariorum et Veredariorum, 201, 209

C

Cadder, 59
Caernarvon, 63
Câineni, 6, 177, 193
Călugăreni, 5, 117, 118, 121, 122, 142, 253
Câmpulung-Jidova, 6, 176, 177, 193, 198, 201, 241
Carataș, 151
Carrawborough, 94
Carzield, 54
Cășeu, 5, 10, 12, 33, 53, 54, 57–59, 61–63, 65–70, 75, 79, 85, 107, 111, 112, 197, 248, 249
Castle Collen, 59
Castlecary, 59
Castranova, 6, 193
Cătunele, 5, 122, 256
Cigmău, 5, 122, 124–128, 149
Cincșor, 6, 177, 198, 199, 202, 204, 238, 249, 252
Cladova, 145, 248
cohors:
 I Aelia Gaesatorum, 27, 28, 33–36
 I Aelia sagittariorum ∞ *equitata*, 139
 I Alpinorum, 87, 116, 121, 122, 142, 145
 I Antiochensium, 129, 138

- I Asturum*, 23
I Augusta Ituraeorum, 52, 100, 101, 122
I Augusta Nervia Pacensis Brittonum milliaria, 237, 238
I Aurelia Brittonum milliaria Antoniniana, 100, 120, 121
I Baetasiorium, 147
I Batavorum, 94, 111, 114, 152
I Bracaraugustanorum, 68, 188, 189, 192, 200, 236, 242
I Britannica, 12, 17, 34, 53, 54, 57, 60, 64, 66–69, 70, 85, 112, 235, 236, 249
I Brittonum, 34, 69, 174, 236
I Cannanefatium, 12, 115, 116, 256
I Flavia Brittonum milliaria, 224
I Flavia Commagenorum, 185, 197, 198, 201, 224, 225, 235, 236, 241
I Flavia Hispanorum, 52
I Flavia Numidarum Antoniniana, 176
I Hispanorum, 52, 86, 87, 101, 116, 184, 189, 191, 192, 226, 237, 238
I Ituraeorum, 99, 100, 110, 111, 113
I Montanorum, 151
I Tyrriorum, 185
I Ubiorum, 87, 253
I Ulpia Brittonum, 13, 34, 35, 52, 68–70, 99, 100, 121, 139
I Vindelicorum, 145, 165, 171–173, 243
II Bracaraugustanorum, 202
II Britannorum, 17, 54, 57, 65–67, 69, 85, 100, 101, 111–113
II Flavia Bessorum, 147, 199, 225, 237, 238, 252
II Flavia Commagenorum, 144, 145
II Flavia Numidarum, 199, 202
II Hispanorum, 27, 28, 34–36, 117
II Hispanorum scutata Cyrenaica, 35
III Bracaraugustanorum, 188
III Brittonum, 138
III Campestris, 87, 100, 112, 138, 254
III Dacorum, 100
III Delmatarum, 142, 143
III Gallorum, 176, 188, 204–208
III Baetasiorium, 147
III Bracaraugustanorum, 188
III Cypria, 120
III Hispanorum, 141
V Gallorum, 139, 150, 151, 205
VI Thracum, 99–101, 110–114
VIII Raetorum, 141, 142, 159, 160, 250
IX Batavorum, 148
XX Palmyrenorum, 23
Comalău, 6, 189, 192, 200, 225
commander's quarters, 8, 31, 36, 37, 41, 52, 54, 57–60, 62, 66, 71–73, 75, 76, 82, 92, 107, 109, 115, 126, 133, 196, 197, 212, 220, 231
Copăceni, 6, 177, 200, 201, 209, 210, 255
Corbridge, 63, 232, 239, 243
Craiova, 155, 201, 209, 215, 243, 246, 256
Cristești, 5, 117, 128, 129
- D**
Dacia, 7–18, 23, 25, 26, 34, 35, 40, 52, 55–57, 60, 67, 68, 71, 72, 79, 84, 85, 92, 95, 96, 99, 101, 104, 105, 111, 113, 116, 118–121, 126, 127–129, 134, 138, 139, 141–146, 148–152, 155, 159, 165, 166, 171, 172, 174, 175, 180, 183, 186, 189, 190, 194, 197, 200, 203, 206, 217, 223, 228, 230, 231, 234, 238, 242, 243, 245, 246, 248, 250, 251–256
Dacia Inferior, 6, 11, 120, 144, 146, 147, 155, 175–178, 183, 185, 187–189, 191, 192, 199, 201, 204–208, 215, 226, 235, 236, 238, 251, 252, 256
Dacia Porolissensis, 5, 12, 14, 26, 27, 35, 53, 68, 69, 71, 79, 86, 111, 114–116, 118, 155, 175, 245, 247, 248, 252
Dacia Superior, 5, 52, 116, 117, 120, 121, 127–129, 139, 142, 144, 145–148, 150, 151, 154, 155, 172, 174–176, 206, 207, 236, 251, 252
Drajna, 177, 190, 198, 241
Drobeta, 5, 18, 129, 131–135, 137–140, 171, 177, 183, 228, 243, 245, 246, 252, 255, 256
Dura-Europos, 104, 164, 180, 184
- E**
Eining, 106, 122, 196, 239, 246
Elst, 173, 248
Enoșești, 6, 177, 201, 205, 207, 226, 256
equitum Illyricorum, 204
Exeter, 156, 243, 246
- F**
fabrica, 15, 25, 47, 49–51, 60, 61, 93, 98, 108–110, 115, 182, 196, 212, 222, 232, 246, 254
Fâlfani, 6, 177, 201
Feldioara, 6, 177, 199, 202, 247, 252
- G**
Gallia Belgica, 147
Germania, 9, 12–14, 37, 113, 139, 143, 148, 149, 173, 177, 196, 204, 205, 207, 235, 246,
Germania Inferior, 67, 68, 78, 86, 111, 112, 148, 173, 242, 243, 245
Germania Superior, 23, 143, 148, 250
Germanicianorum Exploratorum, 147, 246
Germisara, 128, 204, 246, 252
Gherla, 5, 34, 69, 71, 175, 253
Ghioaca, 6, 177, 203
Gilău, 5, 10, 13, 17, 18, 55, 59, 66, 71, 73, 75, 76, 78–80, 82, 84, 102, 107, 112, 115, 119, 152, 197, 245, 248, 250, 254
Gîrbău, 79
granary, 23, 31, 32, 36, 43, 44, 57, 59–64, 95, 97, 109, 110, 126, 127, 182, 193, 194, 198, 212, 222, 231, 246, 250, 251, 253
Gresia, 6, 177, 203
Guljanci, 235

H

Hälmeag, 208
 Haltonchester, 228
 headquarters building, 13, 28–30, 37, 39, 42, 42, 43, 50, 51, 54–57, 59, 60, 62–64, 71–75, 80–82, 86, 87, 89, 90, 92–96, 98, 103–110, 123–127, 130–134, 140, 150, 161–166, 171–173, 179–181, 193–196, 203, 210–215, 217–222, 228–230, 235, 239, 240
 Heddernheim, 95
 Heidenheim, 85, 144
 Hispania, 188, 205, 207
 Hod Hill, 45, 106, 108
 Hofheim, 133, 138, 251
 Hoghiz, 6, 114, 120, 176, 177, 186, 188–190, 203–207, 242, 248, 253
horreum, 14, 31, 32, 43, 44, 59*, 61–64, 83, 93, 95, 97, 126, 127, 143, 150, 174, 181, 193–195, 212, 213, 215, 220, 221, 223, 231, 232, 240
 hospital, 15, 37, 43, 47, 49, 50, 82, 83, 92, 93, 98, 119, 133, 223, 232, 233
 Housesteads, 126, 132, 194, 215, 244

I

Ilişua, 5, 17, 18, 53, 79, 80, 83–86, 111, 112, 118, 119, 152, 250, 253
 Inlăceni, 5, 55, 105, 140, 141, 160, 246
 Inveresk, 54
 Ioneştii Govorei, 6, 208
 Islaz-Verdea, 6, 208

K

Kaiseraugst, 235
 Klosterneuburg, 139
 Künzing, 28, 33, 132, 244, 254

L

Lambaesis, 38, 40, 104, 105, 131, 180, 249, 253
legiones:
I Adiutrix, 12
III Gallica, 100, 247
III Flavia Felix, 12, 99, 151, 171, 174
V Macedonica, 12, 114, 116, 120, 142, 149, 174, 224, 235, 237, 243
VII Claudia, 120, 138, 151, 224
VII Gemina, 12, 100
XI Claudia, 198, 224, 235, 237, 241,
XIII Gemina, 85, 99, 116, 117, 142, 149, 155, 171, 185, 204, 207, 235, 251
XXII Primigenia, 224
 Lişteava, 6, 208
 Livezile, 5, 86, 253
 Lugoj, 145

M

Mactar, 206, 236, 252
 Mainhardt, 23
 Mainz, 12, 235, 249, 252
 Mantua, 236

Mattersburg, 235
 Mauretania, 148, 172, 183, 187, 205–208, 217, 225, 234, 236, 254
 Mauretania Tingitana, 183, 188, 205, 253
Maurorum, 114, 144, 145, 155, 209, 243
 Mehadia, 5, 12, 117, 142, 143, 155, 160, 249, 250
 Micia, 5, 122, 128, 129, 143–146, 148, 171, 174, 242, 244, 245, 251, 252
 Miercurea Ciuc, 141
 Mihăileşti, 141
 Moesia Inferior, 53, 145–147, 175, 176, 185–188, 190, 192, 198, 199, 204–207, 235, 236, 238, 245, 247, 250, 252, 253
 Moesia Superior, 68, 78, 111, 120, 127, 138, 139, 151, 187, 206, 247
 Mofleni, 6, 209
 Momoteşti, 6, 117, 209
 Montana, 235
 Mumrills, 133, 162, 166

N

Nanstallon, 58, 162
 Neckarburken, 61
 Newcastle, 2230, 230, 239, 242, 243, 248
 Newstead, 137, 228
 Noricum, 13, 70, 207, 256
numeri Palmyrenorum Porolissensium, 119
numerus Palmyrenorum, 88
 Numidia, 20, 70, 100

O

Obernburg, 61
 Odiavum, 128
 Odorheiul Secuiesc, 5, 117, 146, 147, 155
 Oescus, 199, 236
 Olteni, 5, 120, 147, 175, 177, 178, 199, 251–253, 255
 Orăştioara de Sus, 5, 117, 147, 148, 245, 246
 Orheiul Bistriţei, 5, 52, 86, 100, 118, 121, 250
 Ostia, 236
 Ozd, 146, 147

P

Pannonia, 13, 27, 34, 35, 52, 68, 78, 86, 89, 113, 114, 128, 139, 143, 173, 235
 Pannonia Inferior, 53, 79, 86, 114, 118, 144, 151, 154, 206, 254
 Pannonia Superior, 33, 34, 128, 139, 154, 206
pedites singulares, 128, 149, 237, 255
 Pen Llystyn, 58, 138
 Perişani, 240
 Porolissum-Citera, 5, 87
 Porolissum-Pomet, 5, 14, 31, 88, 99, 100
 Potaissa, 12, 45, 84, 95, 96, 104, 106, 114, 116, 146, 155, 164, 180, 243, 251
praetorium, 6, 12, 14, 19, 30, 31, 40, 42, 50, 52, 57, 60, 61, 73, 74, 78, 81–83, 92, 93, 103, 107–109, 111, 115, 126, 132–134, 191, 193, 196, 201, 209, 214, 220, 223, 230–232, 240, 243, 246, 250, 254, 255

principia, 13, 28, 30, 31, 37, 38, 40, 44, 45, 54, 55, 59, 61, 62, 70–73, 75, 80, 82, 84, 89, 90, 93, 98, 105–107, 115, 122–124, 130, 134, 140, 141, 150, 162–164, 166, 173, 179, 180, 193–195, 203, 209, 210, 212, 213, 218, 229, 230, 232, 239, 240, 245, 246, 248, 249, 252, 253

Purcăreni, 6, 177, 209

Putineiu, 6, 209

Puzsta Almas, 154

R

Răcari, 6, 177, 209, 213–217, 246, 255

Racovița, 6, 177, 208–212, 256

Rădăcinești, 6, 177, 210, 217

Raetia, 13, 27, 128, 207, 237

Râșnov, 6, 190, 218, 219, 222–224

Ravenglass, 14, 47, 143

Războieni, 5, 117, 152, 154, 242, 244

Red House, 233

Rome, 12, 20, 131, 177, 244, 248, 252

Românași, 5, 36, 52, 101, 102, 112, 114, 255

Romita, 5, 28, 33, 36, 38, 67–69, 99–105, 107–114, 180, 246, 247, 250

Romula, 6, 177, 183, 193, 198, 201, 205, 208, 224, 227, 234

Roșiorii de Vede, 6, 225

Rottweil, 108, 152

Rucăr, 6, 199, 225, 241, 243

Rudchester, 103, 228

Rupea, 203

S

Sâmbotin, 6, 177, 184, 191, 192, 226

Sânpaul, 5, 117, 155, 217, 255

Săpata de Jos, 6, 176, 177, 226, 240, 244

Sărățeni, 5, 117, 121, 140, 142, 172, 178, 239

schola, 15, 79, 96, 97, 111, 166–169, 176, 196, 219, 220, 232, 250

Scupi, 236

Sevilla, 236

Sibiu, 204, 244, 249

Sighișoara, 86, 117, 155, 250

Šipka, 202

Slack, 59, 63

Slăveni, 6, 13, 69, 85, 152, 177, 183, 187, 189, 198, 201, 203, 205, 208, 213–215, 227–230, 232–238, 255

South Shields, 17, 31, 40, 42, 85, 96, 107, 108, 123, 126, 150, 151, 164, 181, 182, 211, 212, 215, 230, 239, 240, 243, 248,

Stolniceni, 6, 177, 199, 225, 237, 238

storehouse, 14, 15, 93, 95, 97, 99, 115, 126, 127, 181, 191, 195, 209, 212, 220, 239

Strageath, 64, 93, 109, 133, 134, 137, 212, 232, 246

Sutor, 5, 26, 114, 217, 248

Syria, 128, 152, 183, 184, 188

Syrorum, 183, 205, 206, 208, 217, 224, 225, 254

T

Tekija, 151

Templeborough, 62, 126

Teregova, 5, 10, 67, 141–143, 155, 156, 158–160, 242, 246

Termessus, 78

The Lunt, Baginton, 45, 84, 93, 108, 134

Thessaloniki, 119, 237

Theveste, 70, 100

Thracia, 113, 148, 183

Thyatira, 202

Tia Mare, 6, 177, 238

Tibiscum, 5, 55, 117, 139, 142, 143, 145, 155, 160–162, 164, 166–168, 171–174, 219, 223, 242–244, 246, 250–252

Tihău, 5, 36, 53, 115, 116, 245, 250, 253, 256

Tiklat, 236

Titești, 6, 55, 105, 172, 177, 178, 210, 238–240

Tokod, 151

Transdiarna, 151

Trier, 235, 245

Turda, 5, 104, 106, 116, 146, 180

U

Urluieni, 6, 177, 240

V

Valea Urluii, 6, 241

valetudinarium, 37, 82, 93, 103, 108, 223, 250

Valkenburg, 61, 122, 204, 205, 240, 246, 254

Variana, 236

Varos Major, 235

Vechten, 67, 68, 111, 112

Vindolanda, 16, 61, 96, 109, 132, 207, 237, 243, 244, 255

Viștea, 79, 112

Voinești, 6, 198, 241, 242

W

Wallsend, 37, 57, 65, 104, 106, 121, 164, 172, 178, 212, 213, 223, 228, 248

Whittle Castle, 63

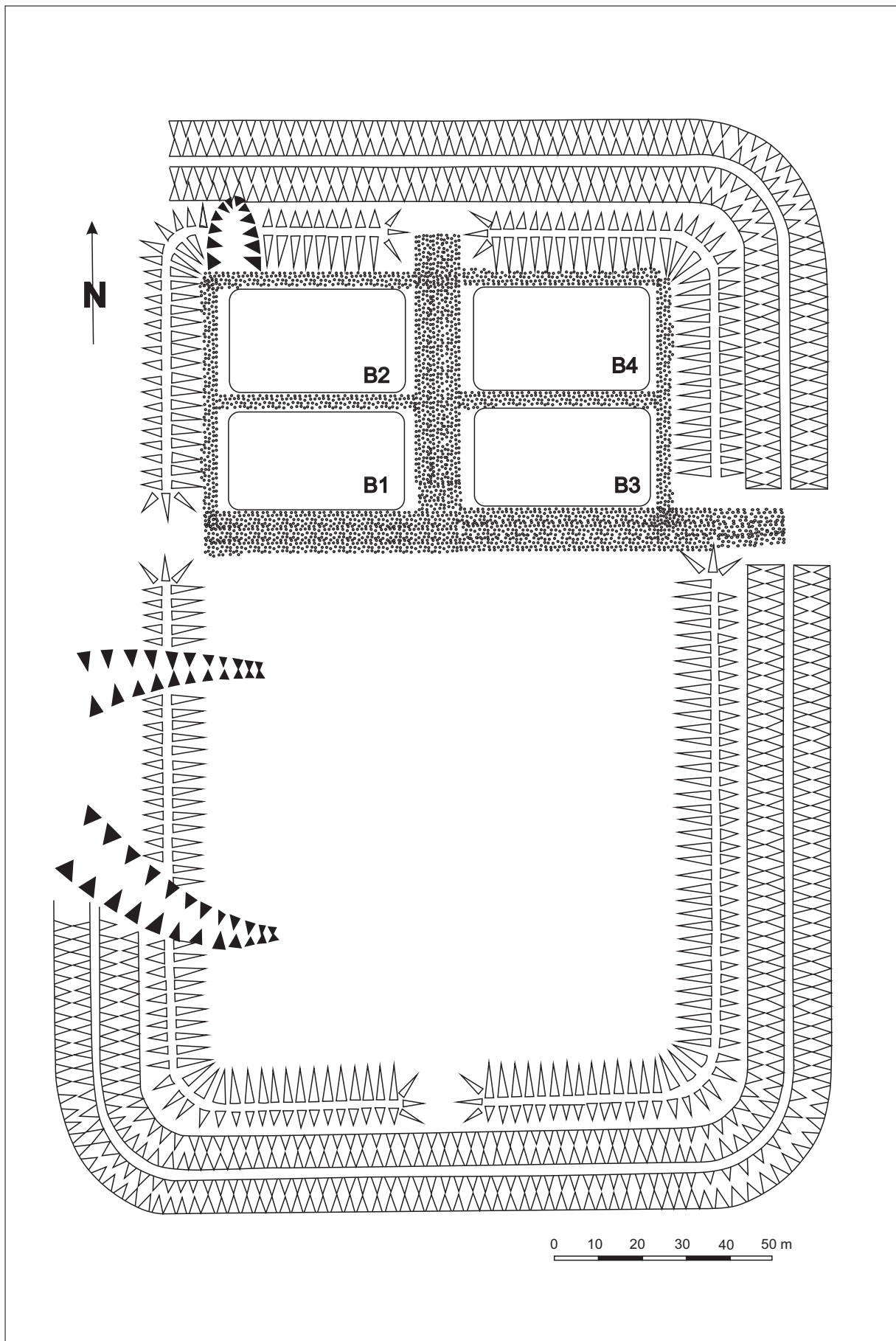
Worms, 235

X

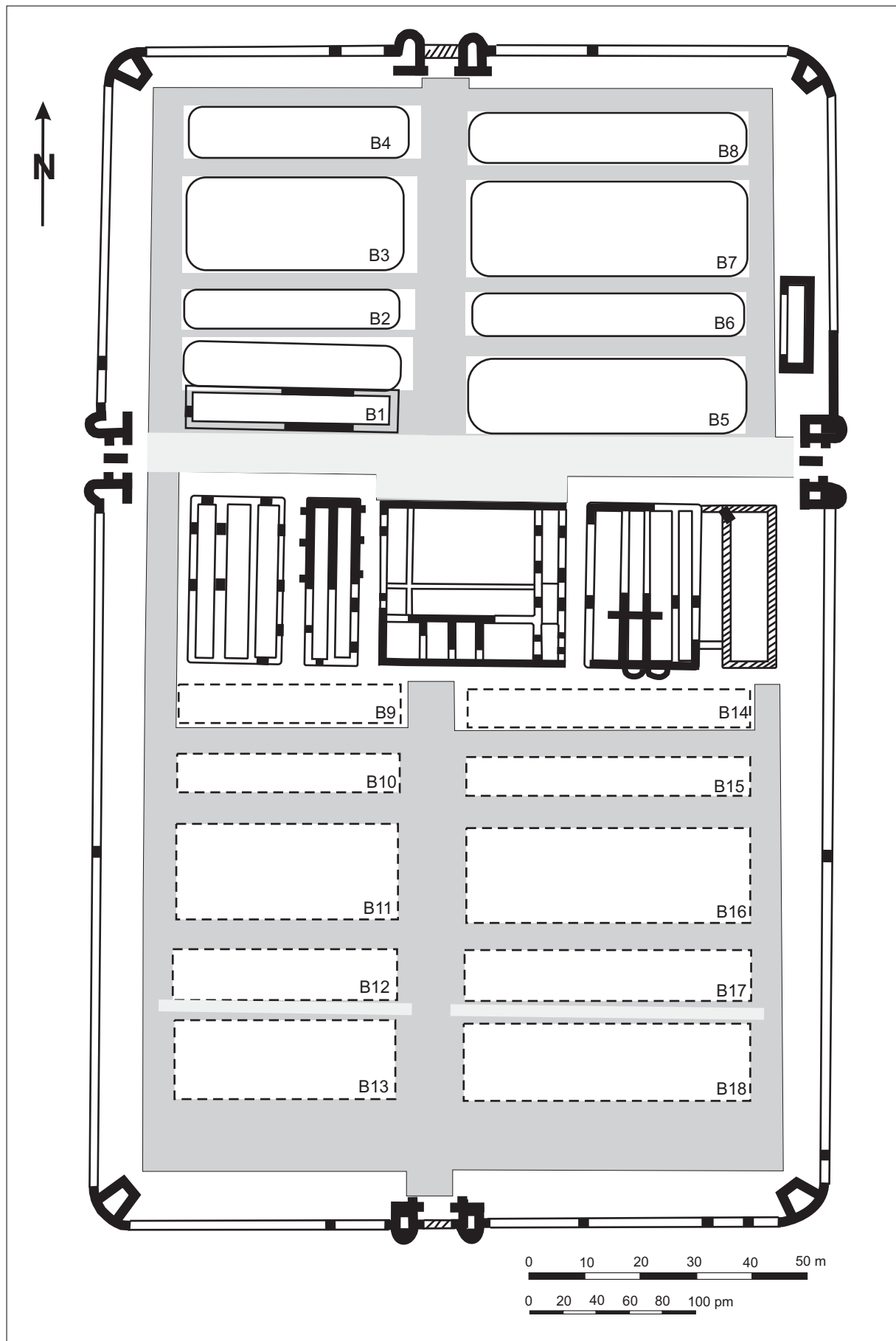
Xanten, 67, 111, 130, 248, 251

Z

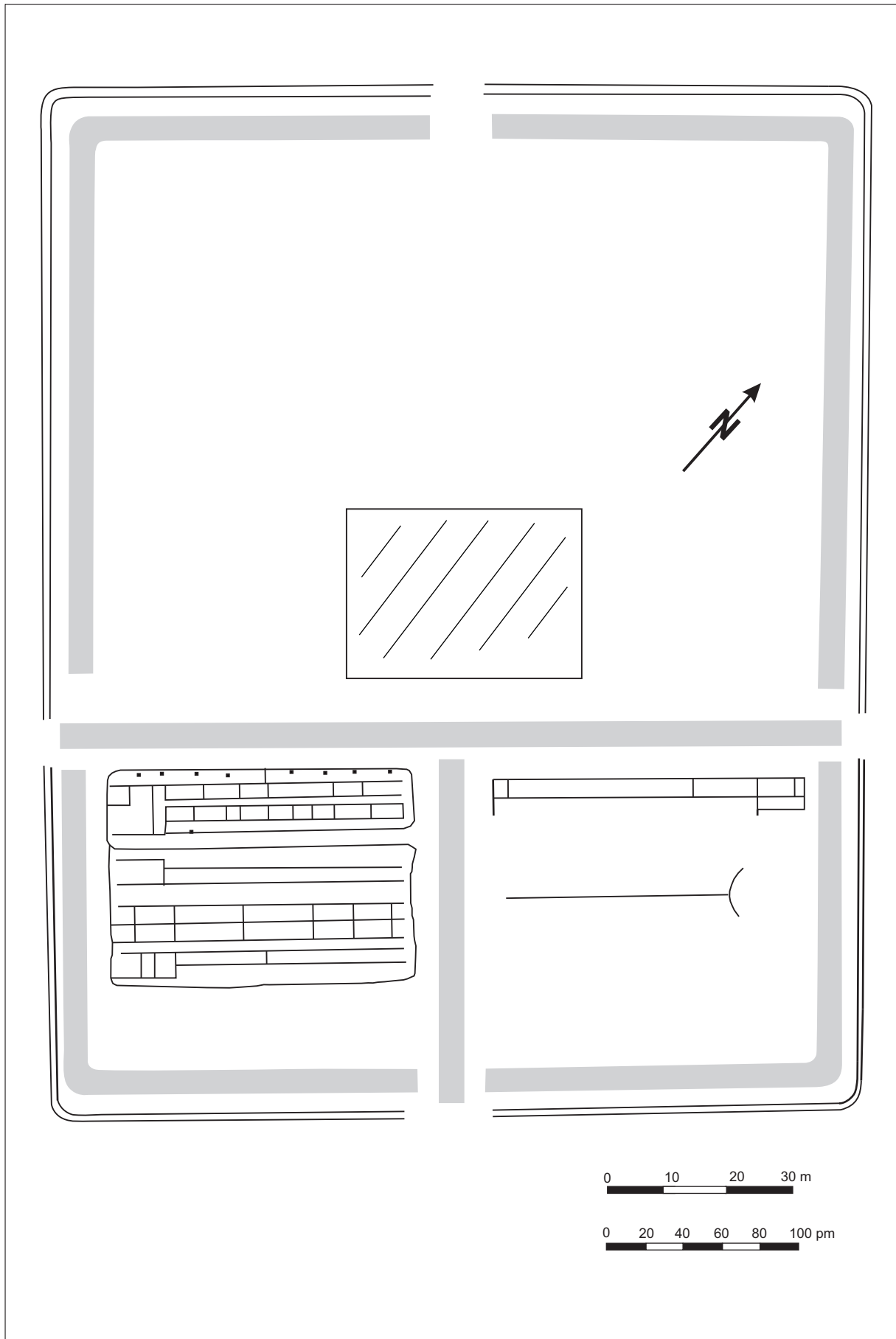
Zăvoi, 117, 139



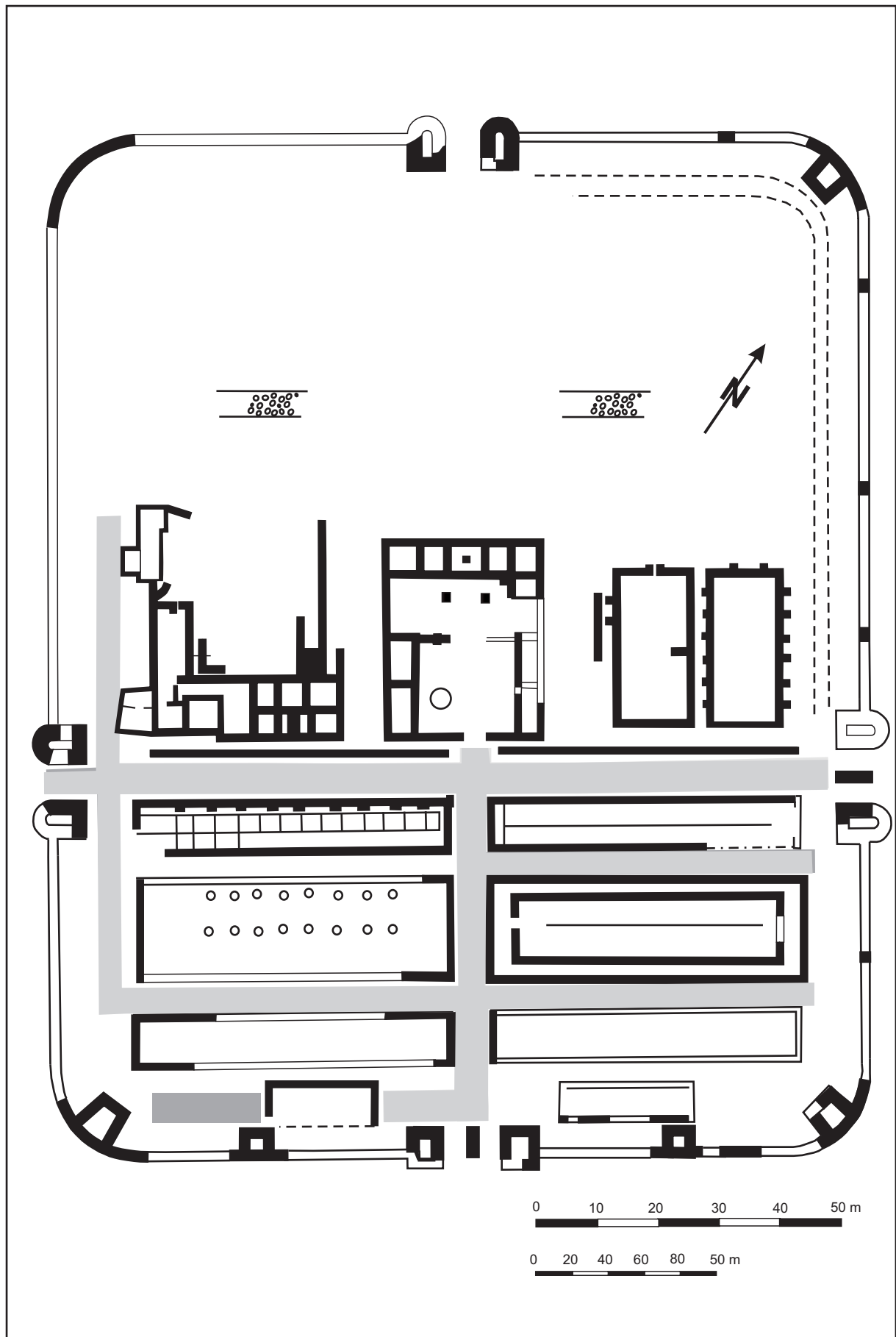
Pl. 1. Bologa 1 (after Gudea 1997d, no. 21).



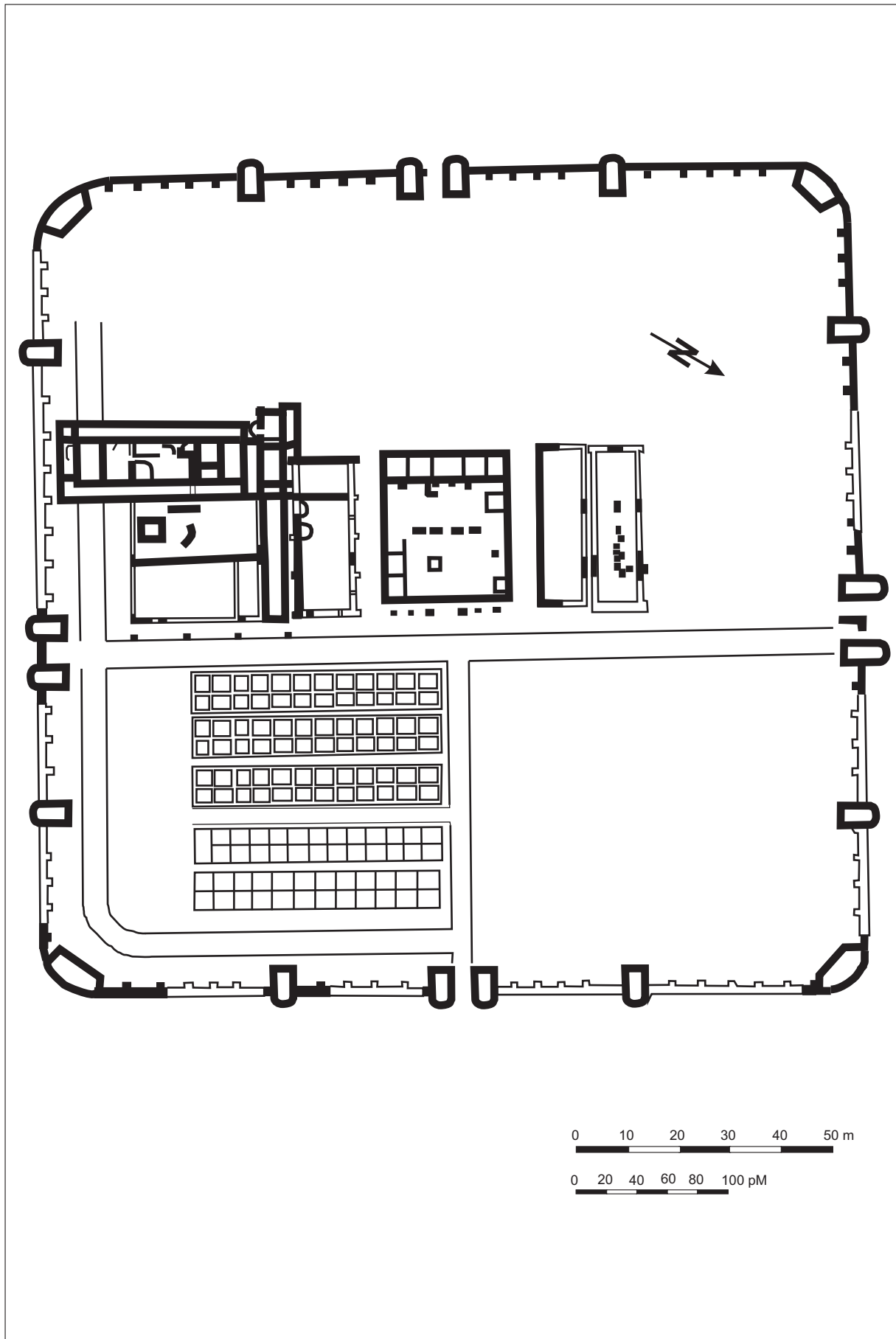
Pl. 2. Bologa 3 (after Gudea 1997d, no. 22).



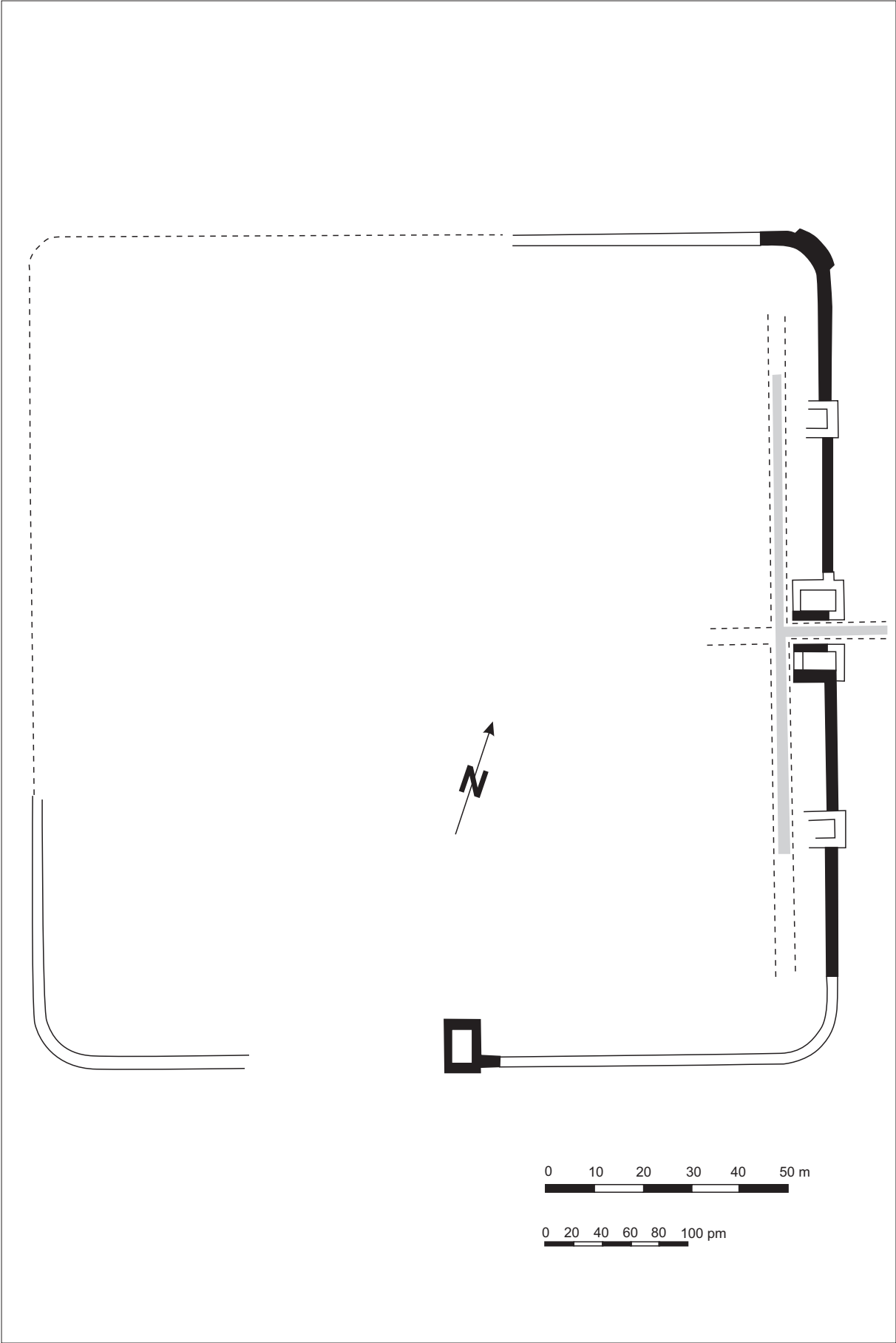
Pl. 3. Buciumi (redrawn after Gudea 1997b, Fig. 2).



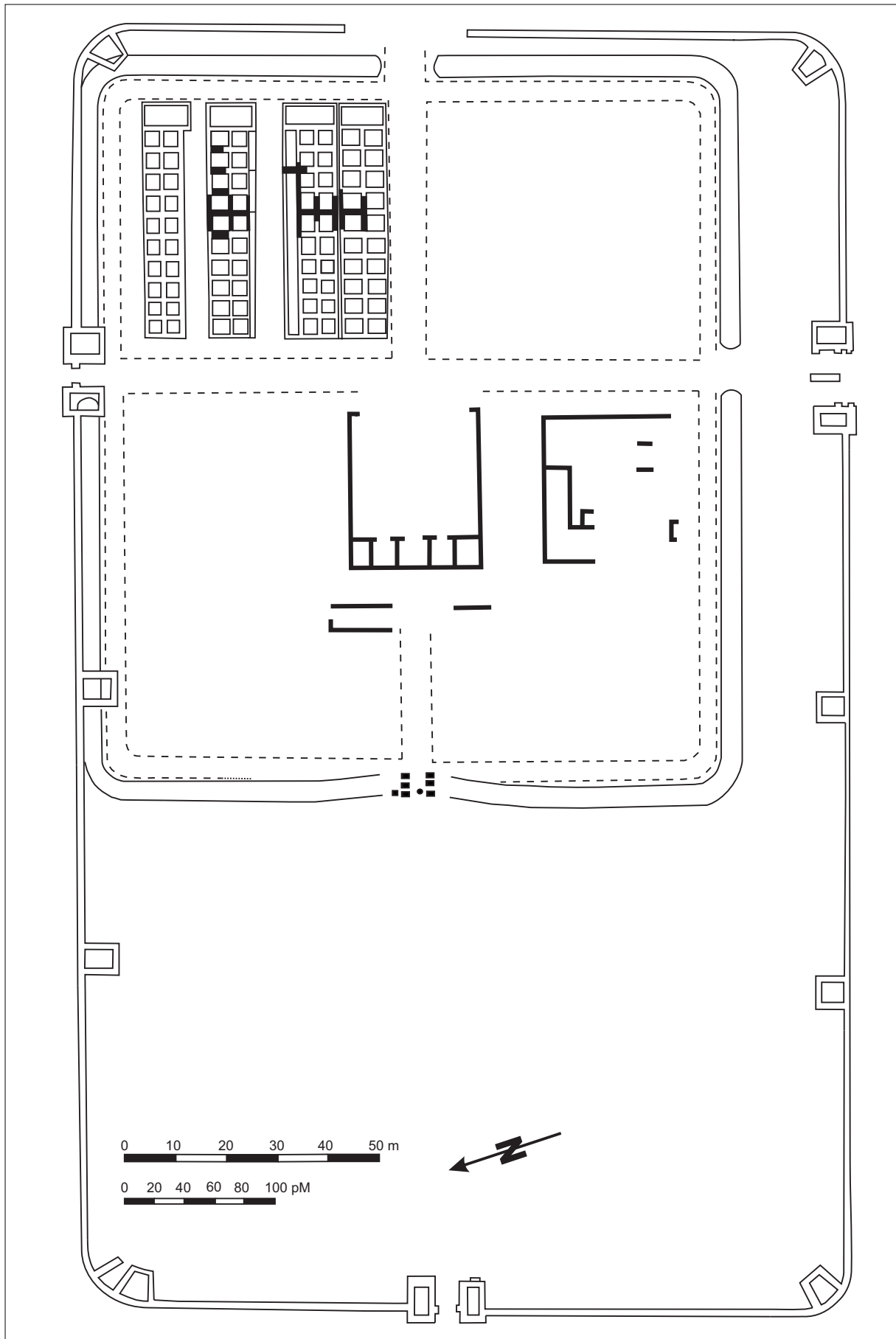
Pl. 4. Buciumi 2 (redrawn after Gudea 1997d, Fig. 8).



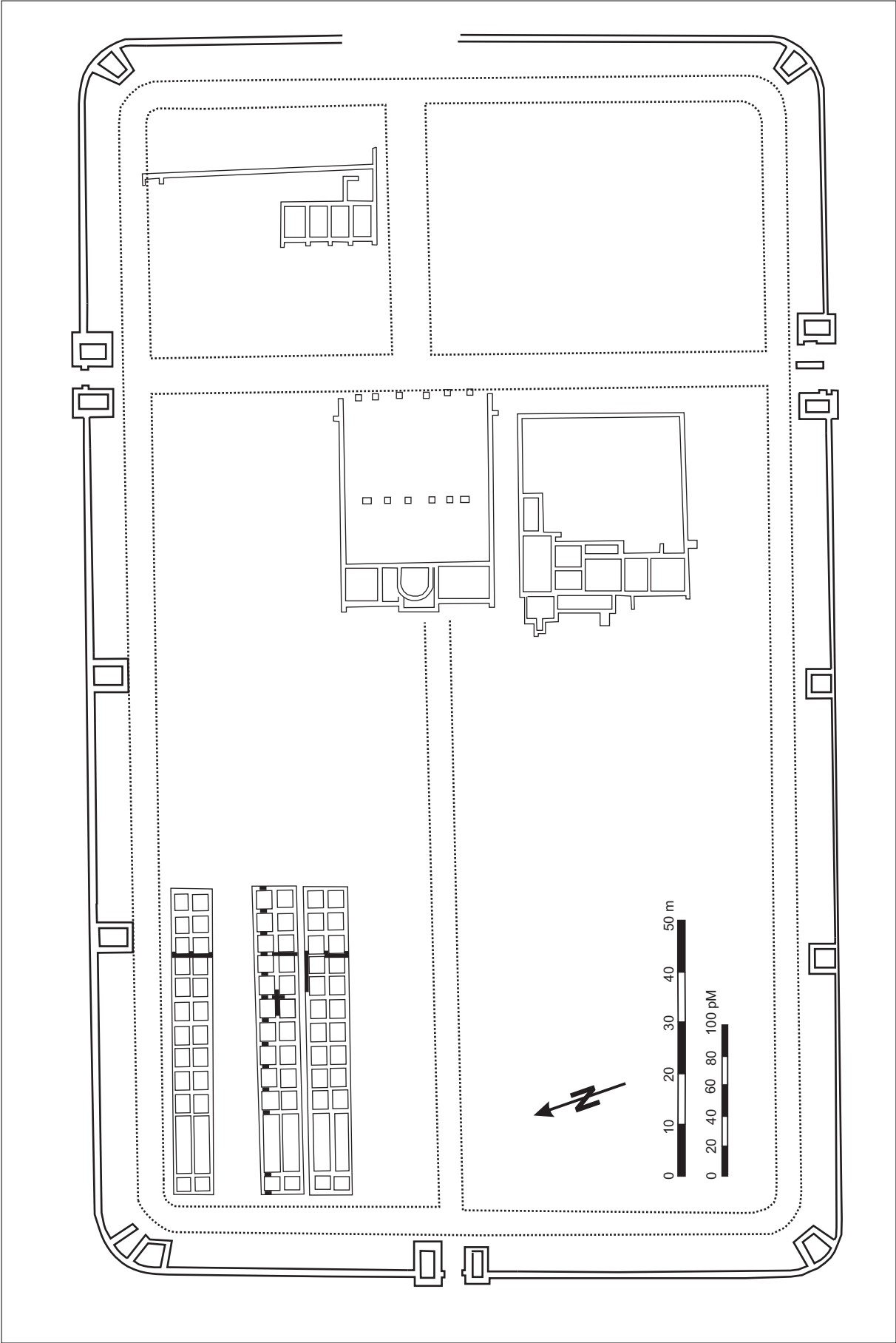
Pl. 5. Cășeiu (redrawn after Isac 2003, Fig. 2).



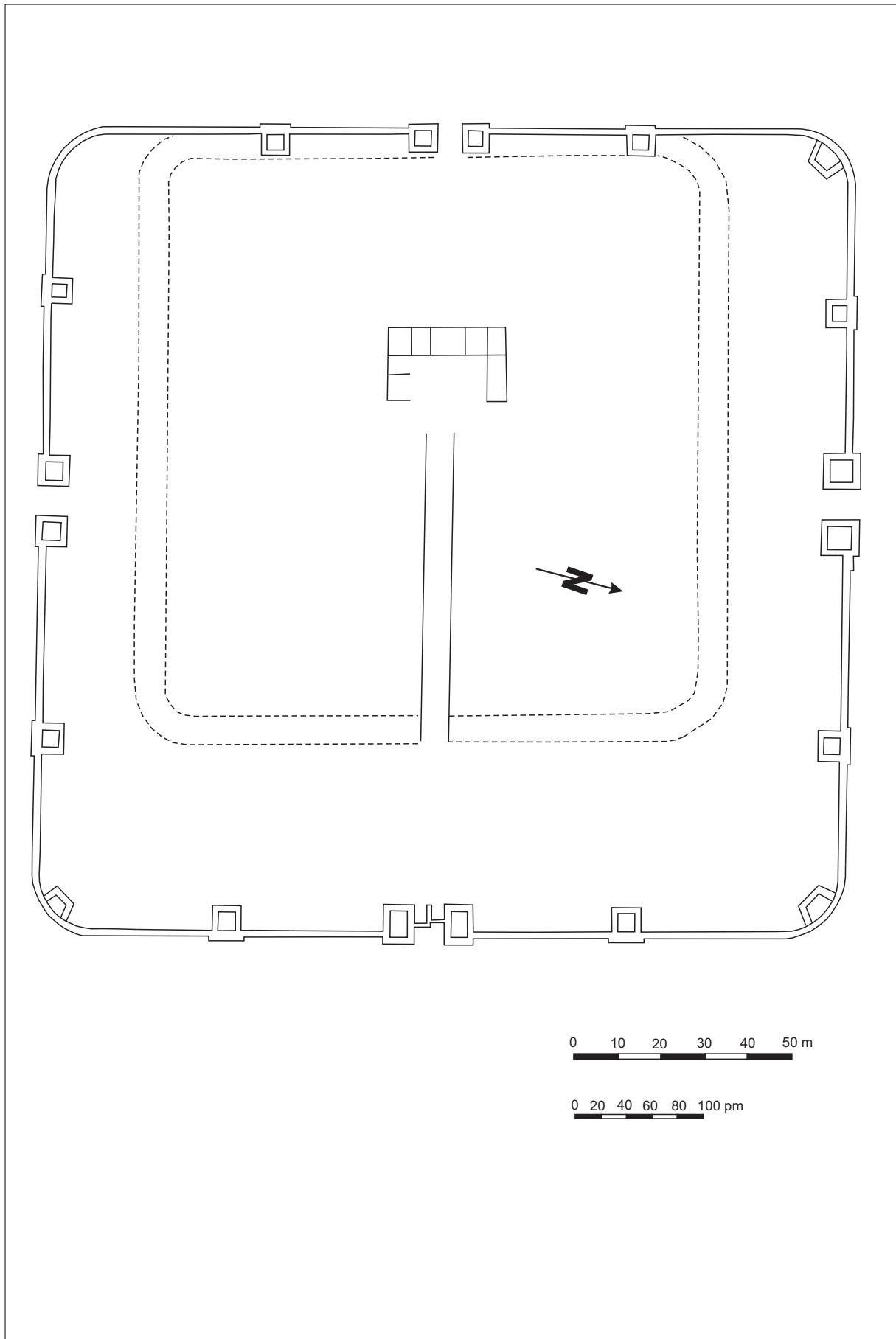
Pl. 6. Gherla (redrawn after Gudea 1997d, no. 97).



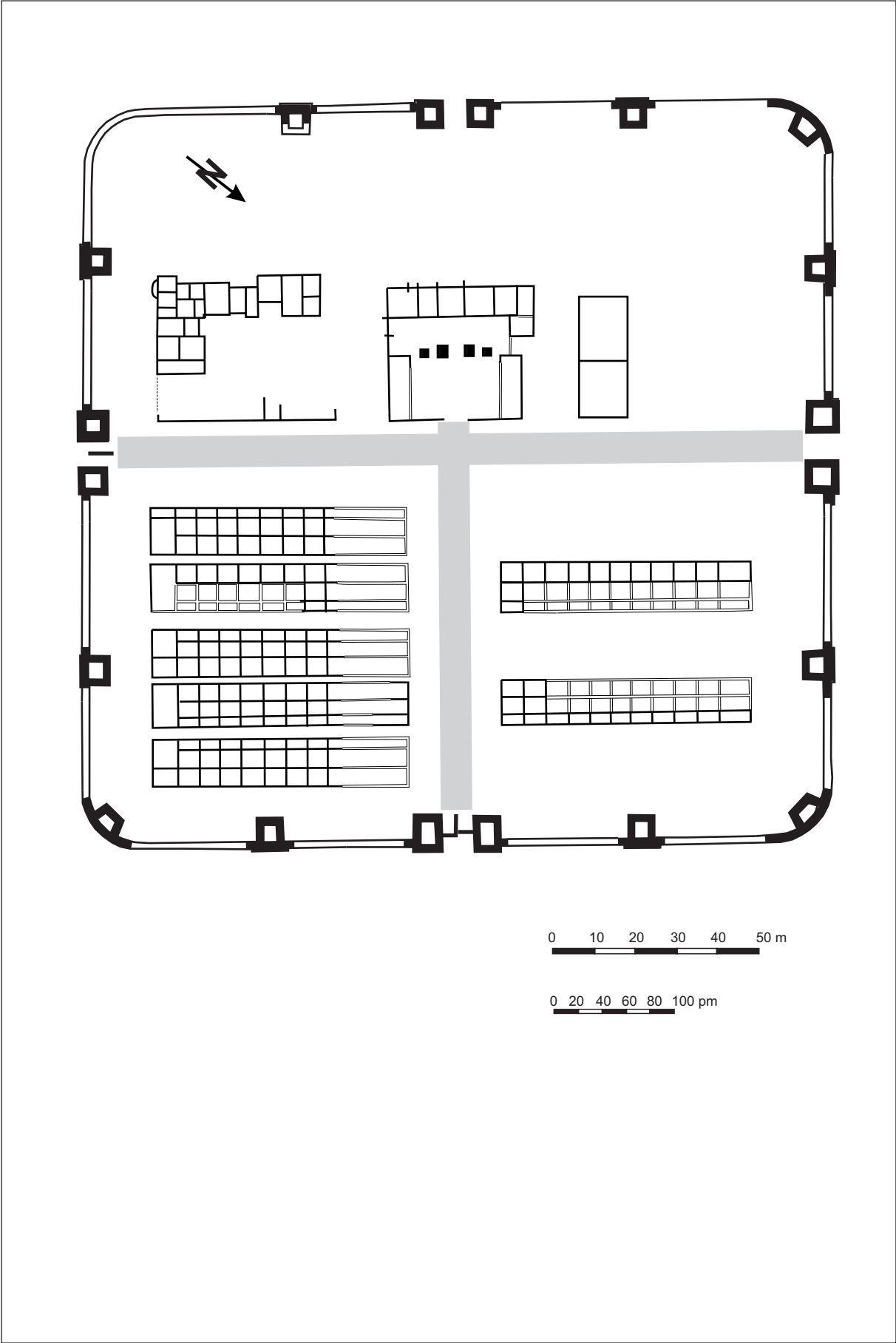
Pl. 7. Gilău I (redrawn after Isac 1997, Pl. IV, XI).



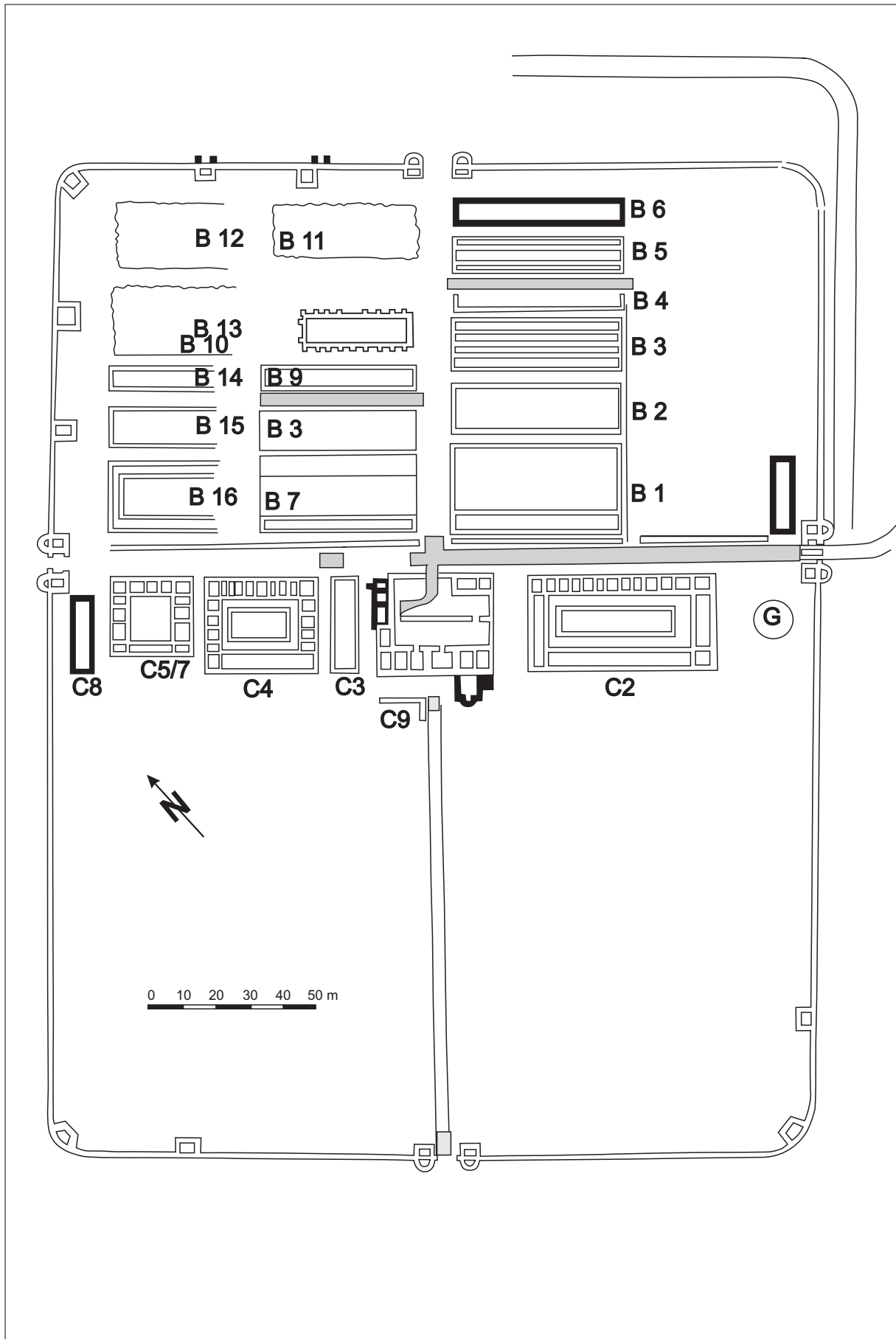
Pl. 8. Gilău III (redrawn after Isac 1997, Pl. IV, XI).



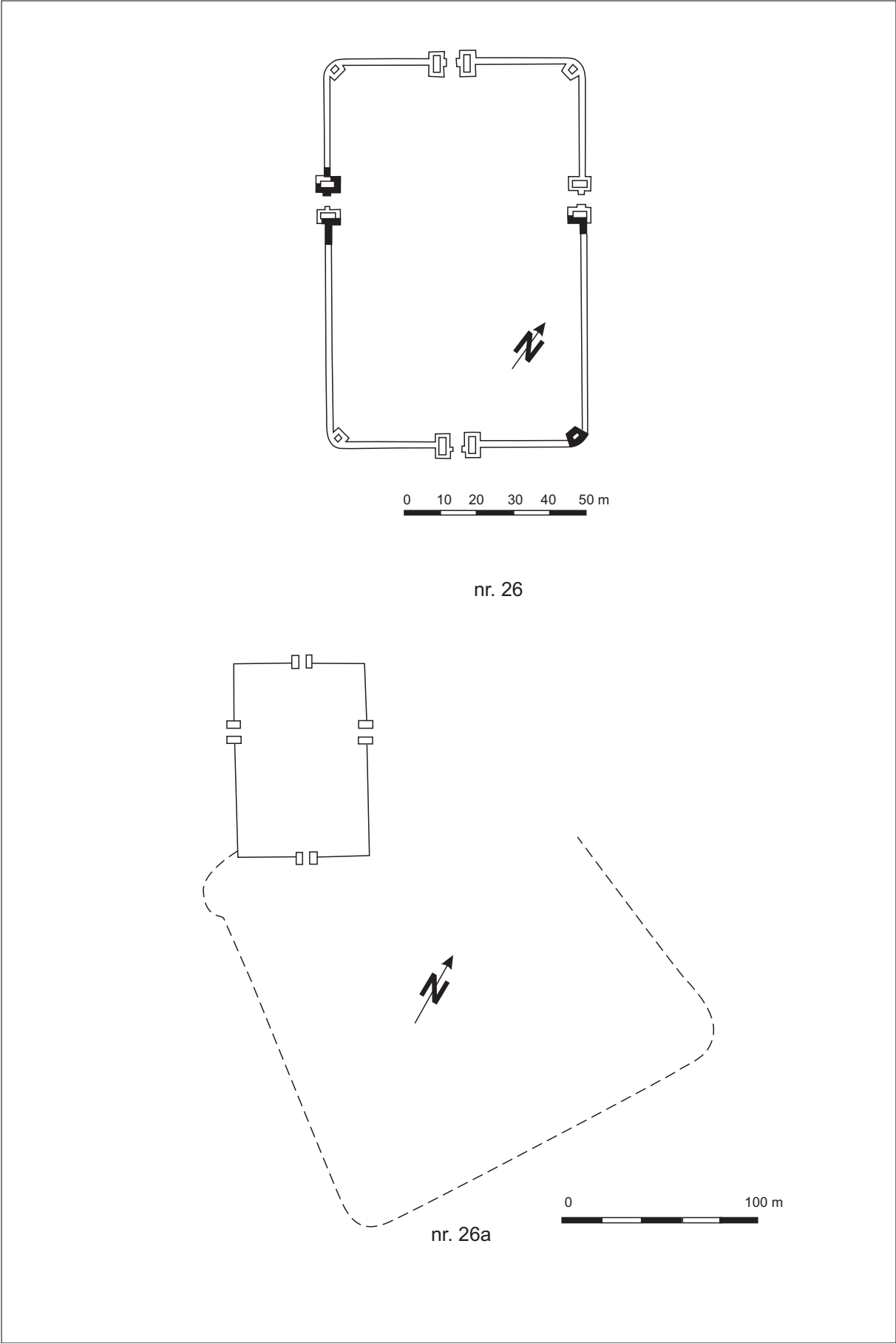
Pl. 9. Ilișua (redrawn after Protase, Gaiu, Marinescu 1997, Pl. IX, VII).



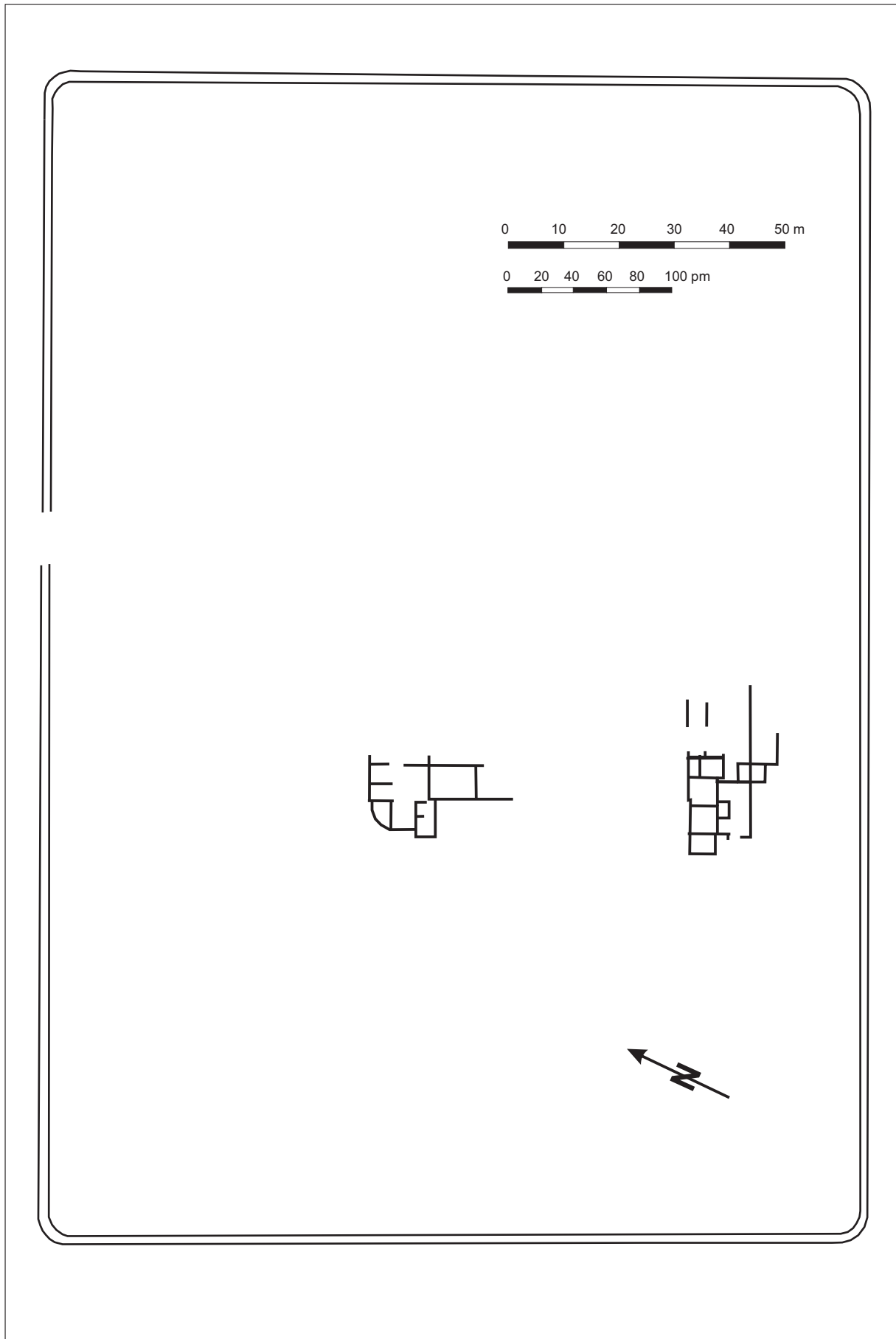
Pl. 10. Ilișua (redrawn after Protase, Gaiu, Marinescu 1997, Pl. VII).



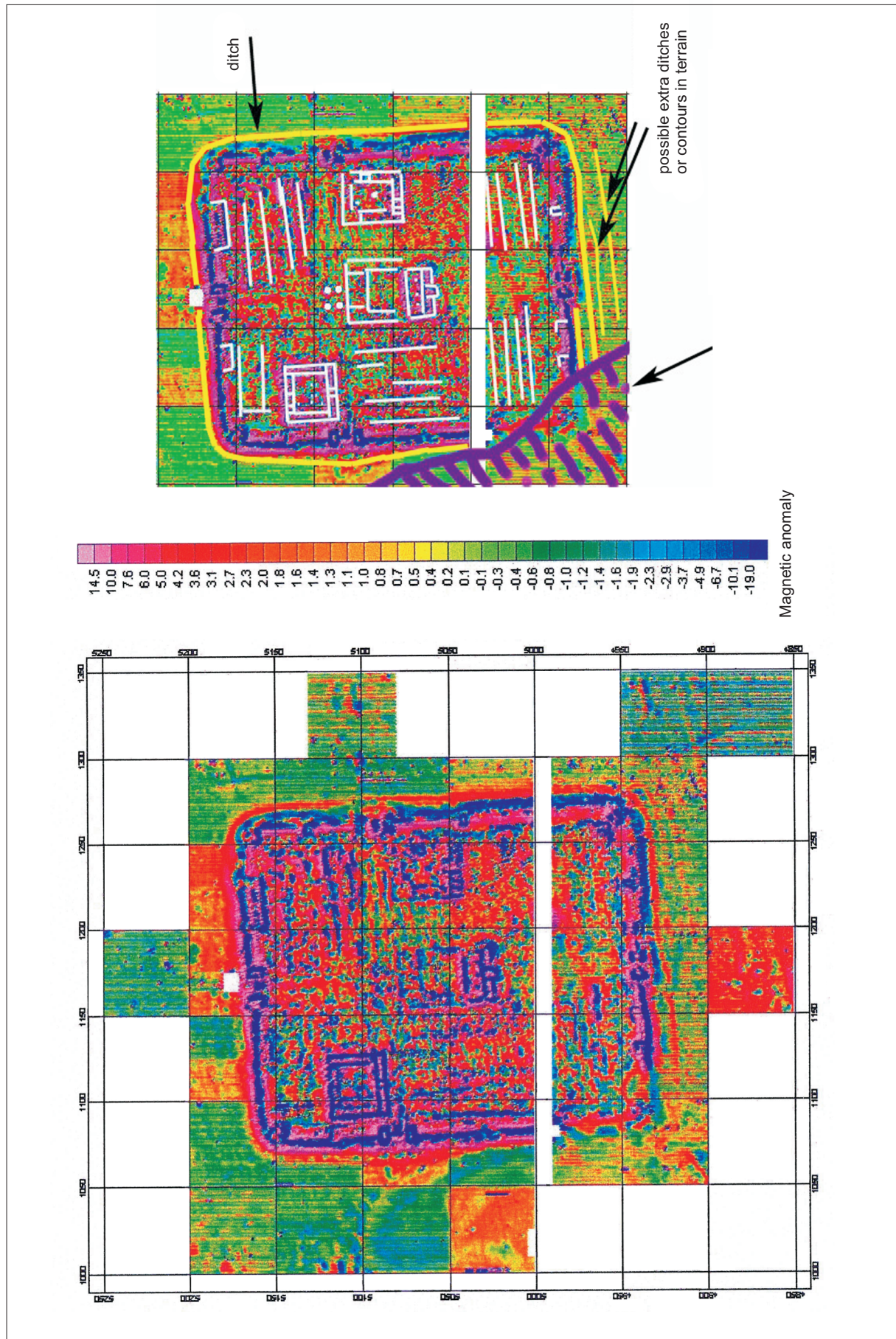
Pl. 11. Porolissum (redrawn after Gudea 1997d, nr. 25).



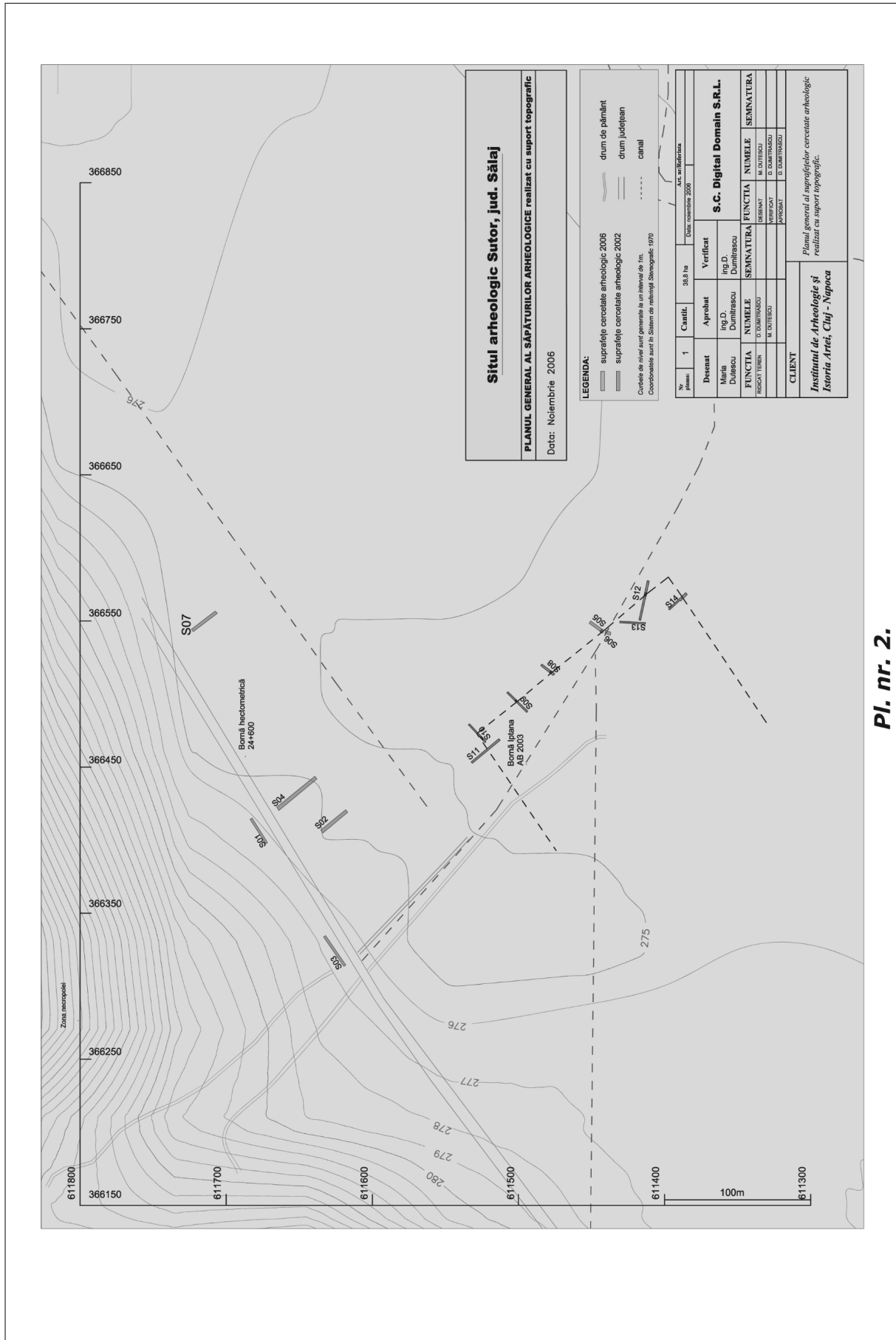
Pl. 12. Porolissum-Citera (after Gudea 1997d, no. 26).



Pl. 13. Orheiul Bistriței (redrawn after Gudea 1997d, no. 31).

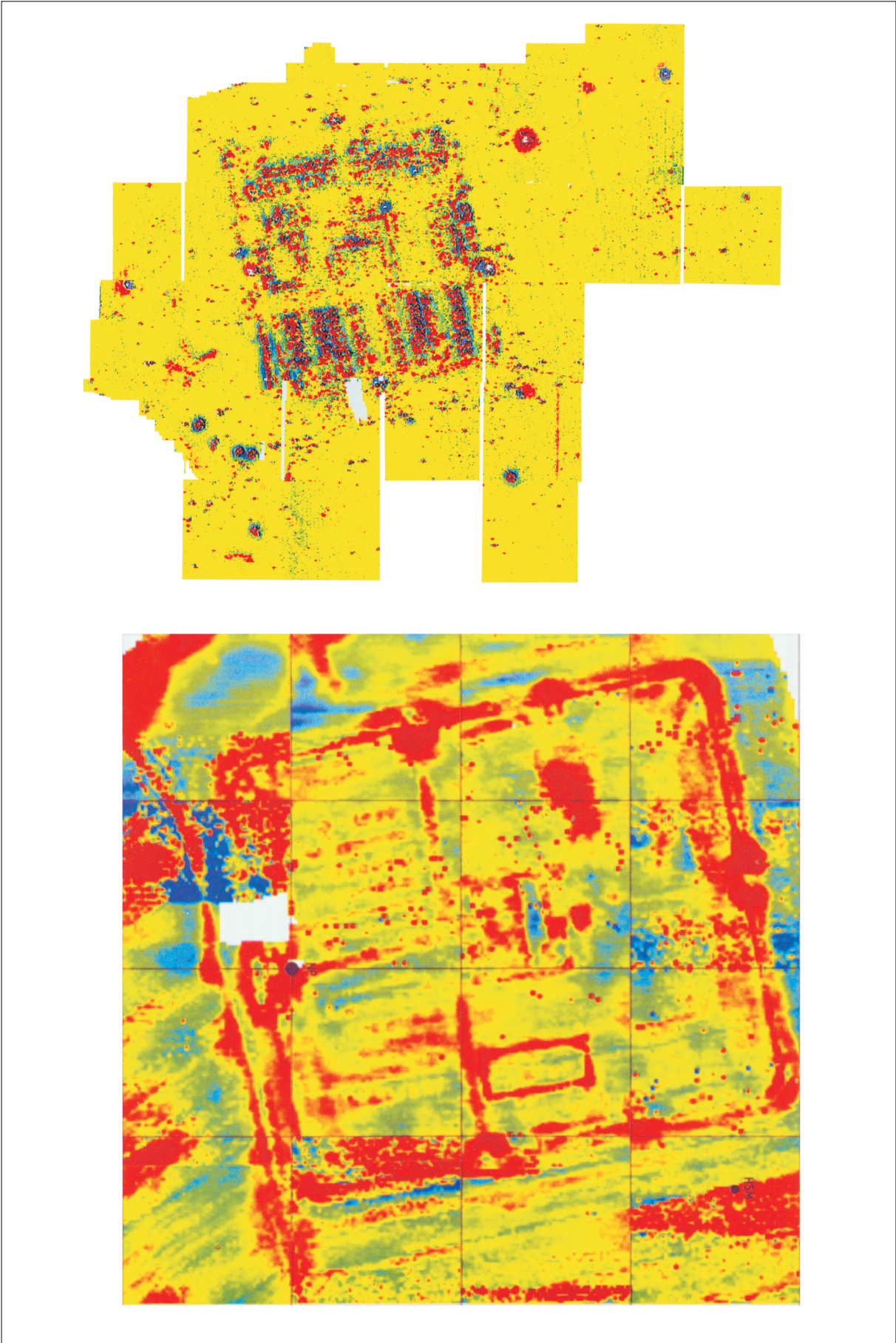


Pl. 14. Romita.

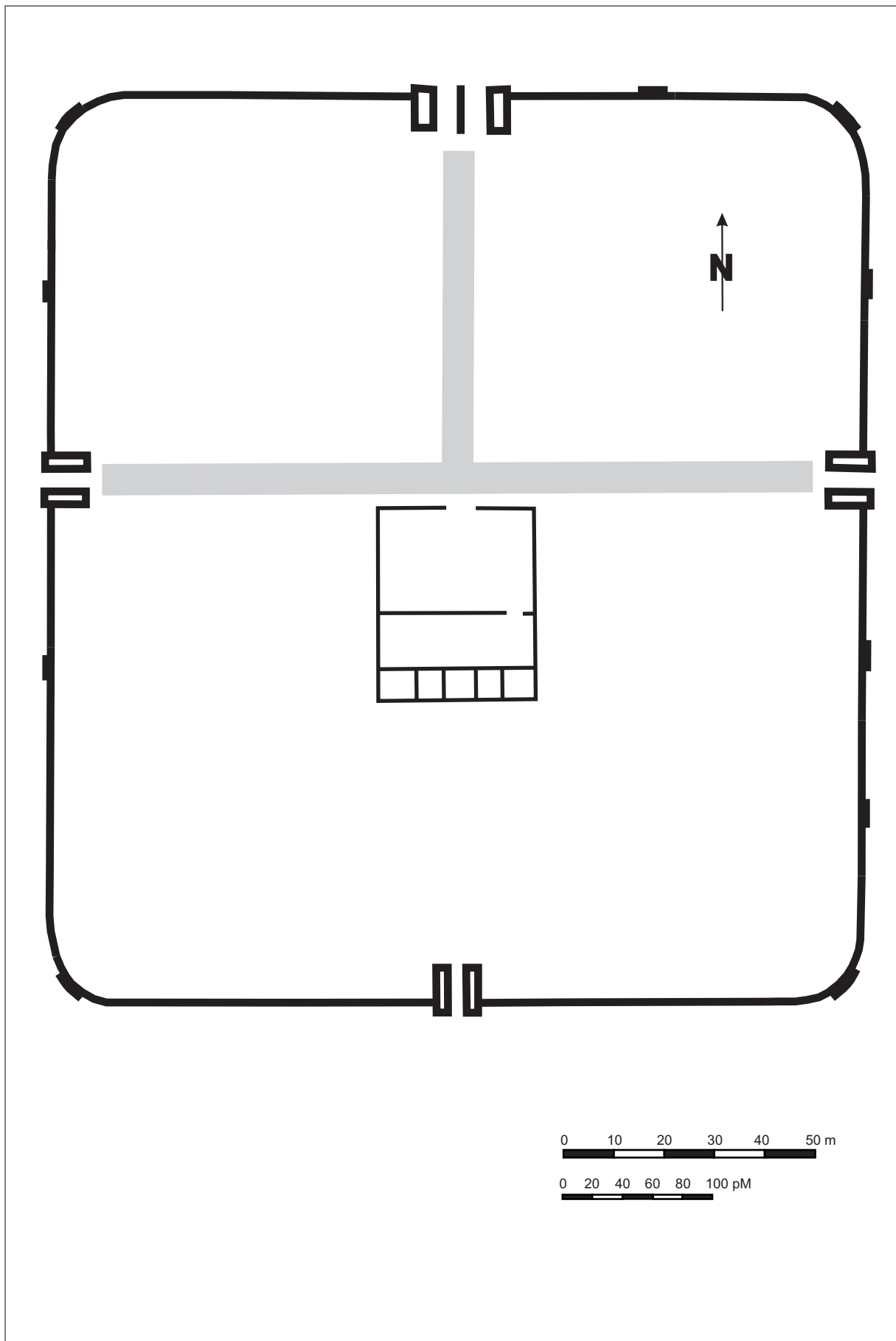


Pl. nr. 2.

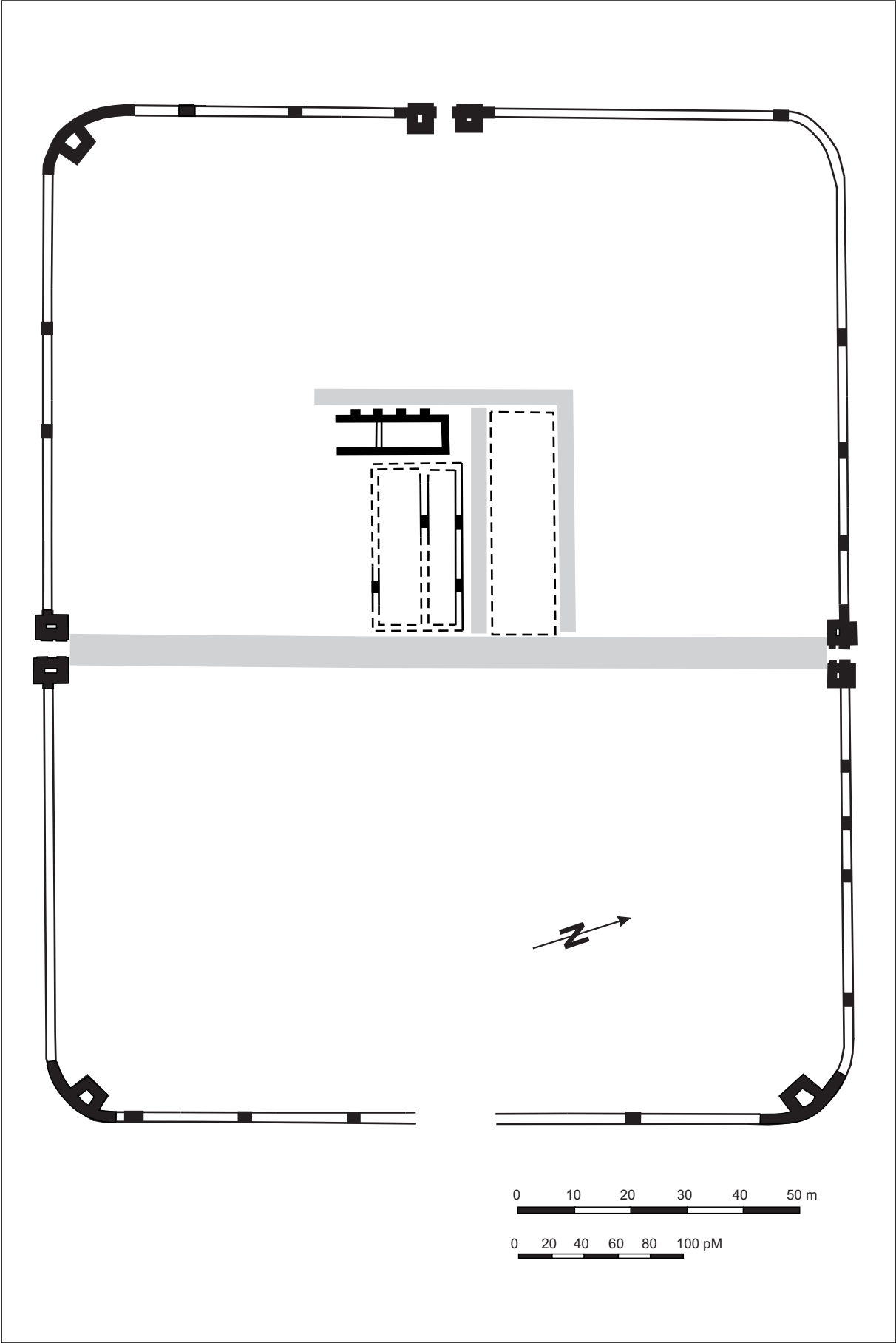
Pl. 15. Sutoru.



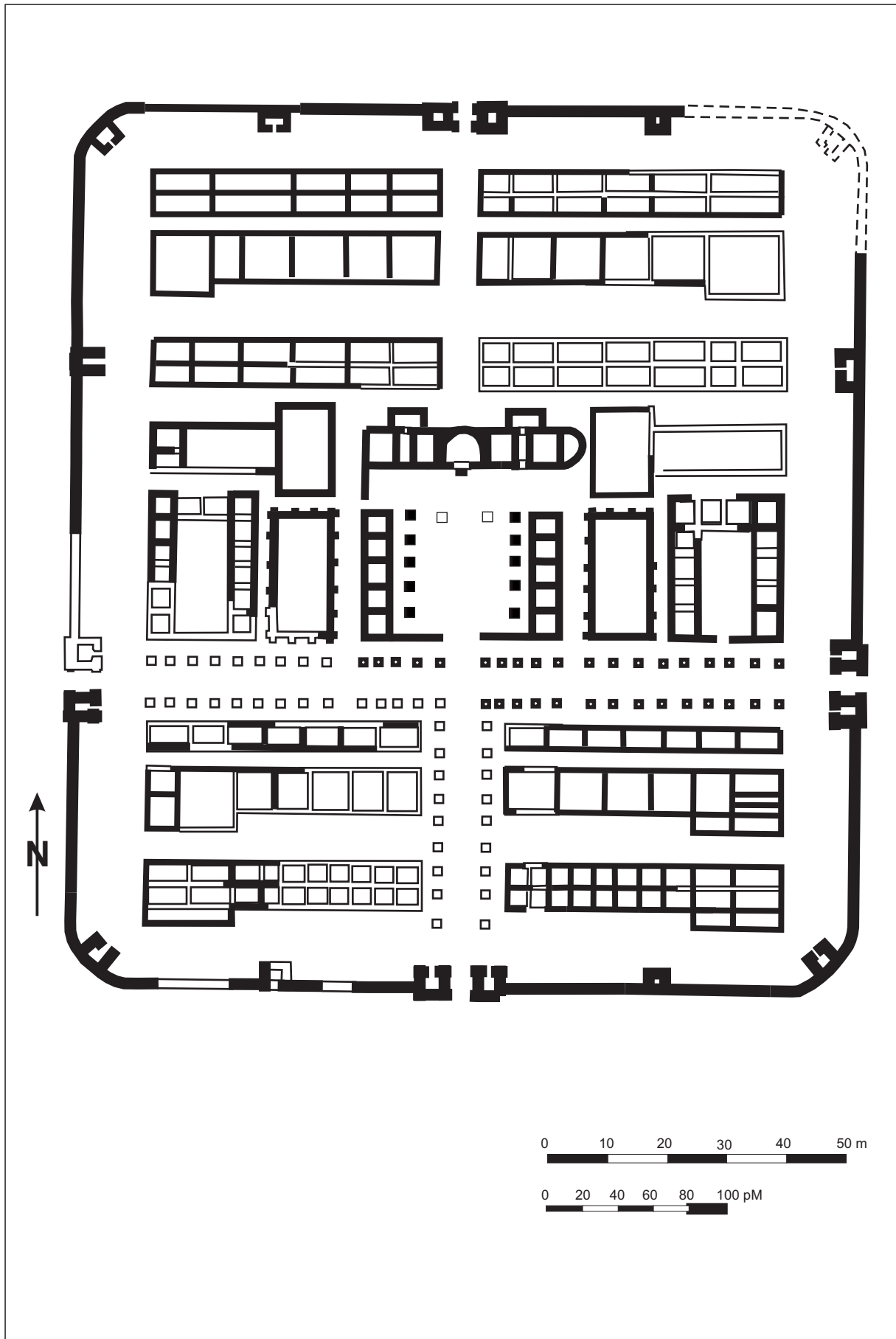
Pl. 16. Tihău (after Haalebos 1999, Afb. 12).



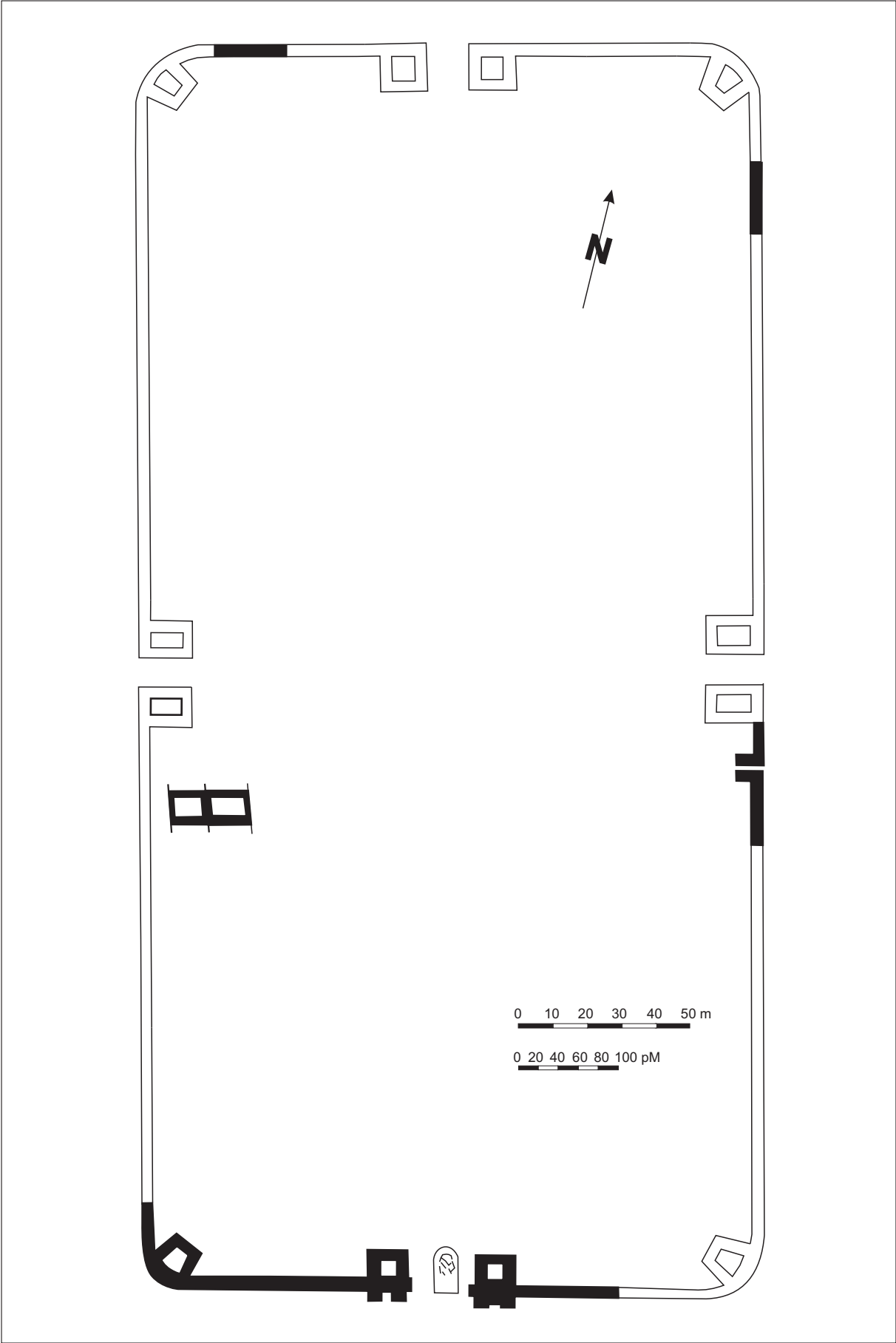
Pl. 17. Vărădia (redrawn after Gudea 1997d, no. 9).



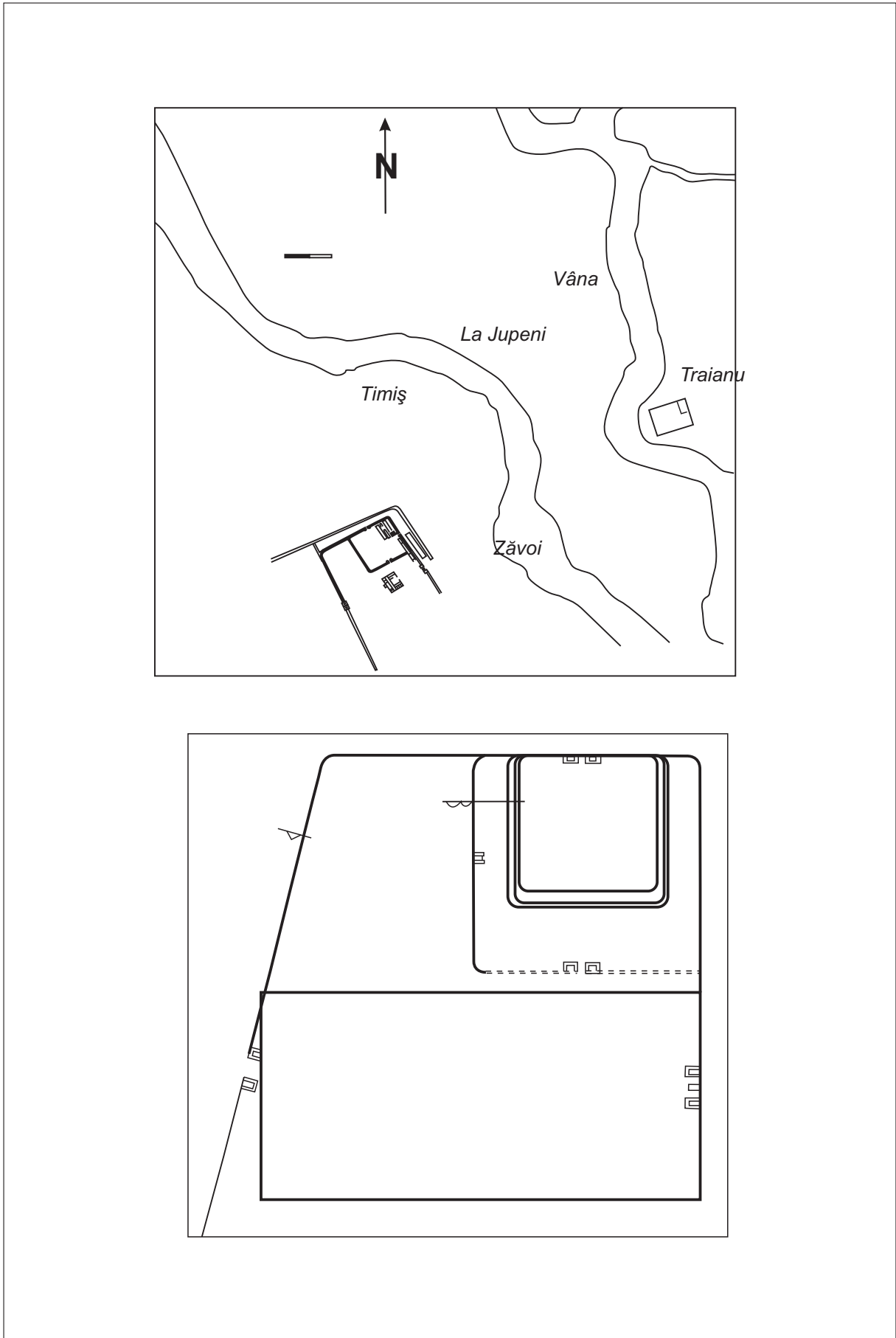
Pl. 18. Pojejena (redrawn after Gudea 2001, Fig. 10).



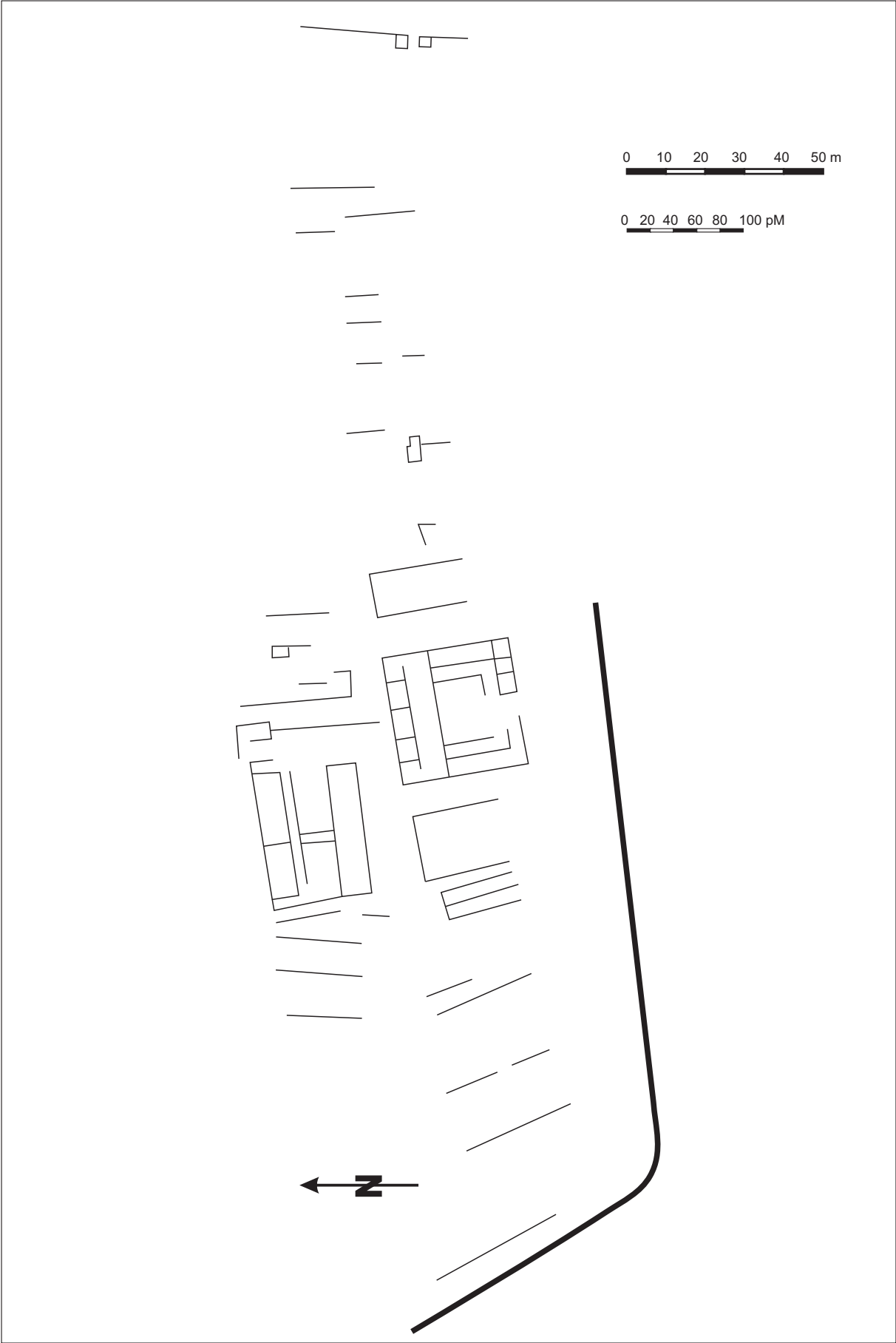
Pl. 19. Drobeta (redrawn after Tudor 1978, Fig. 73).



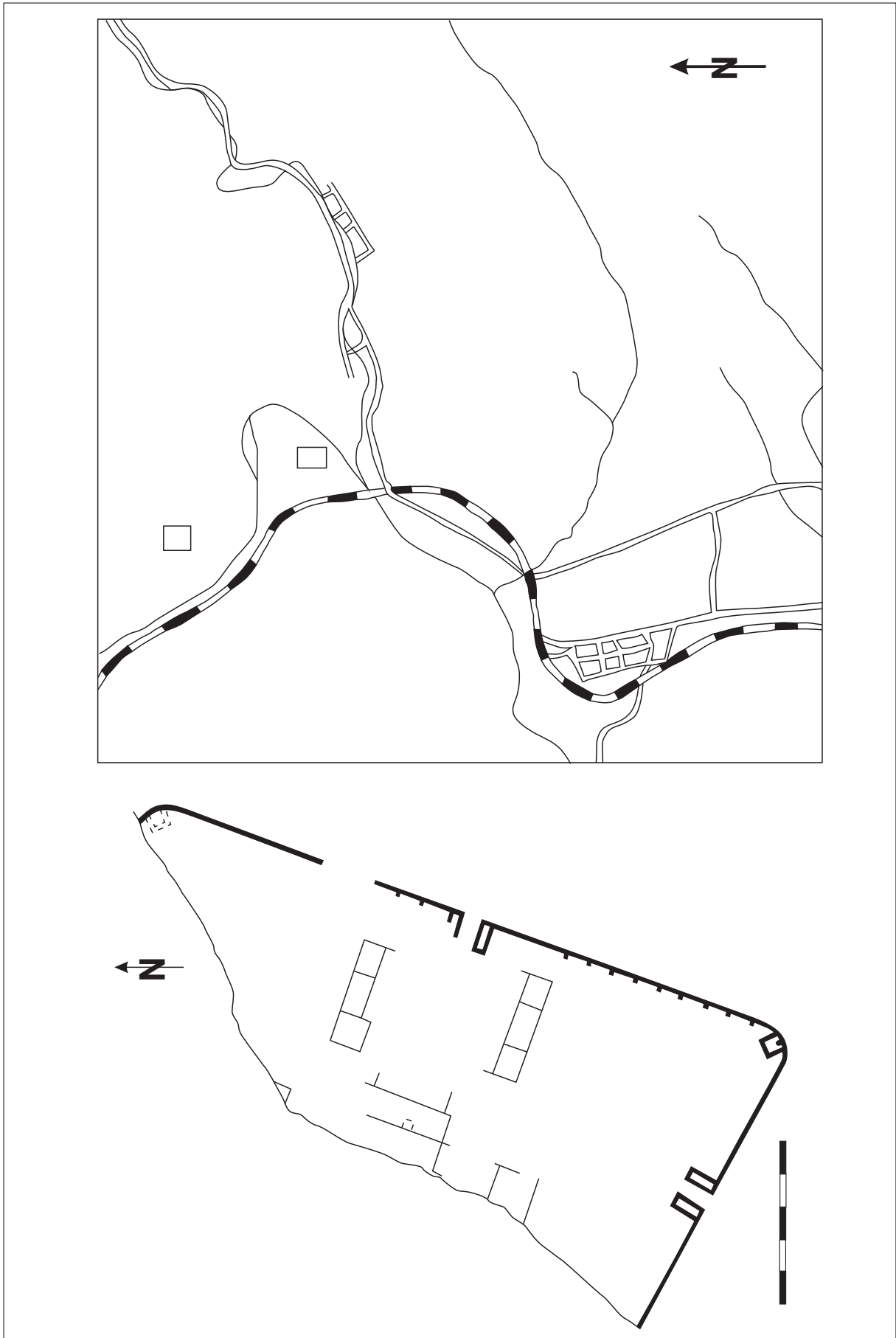
Pl. 20. Micia (redrawn after Gudea 1997d, no. 19).



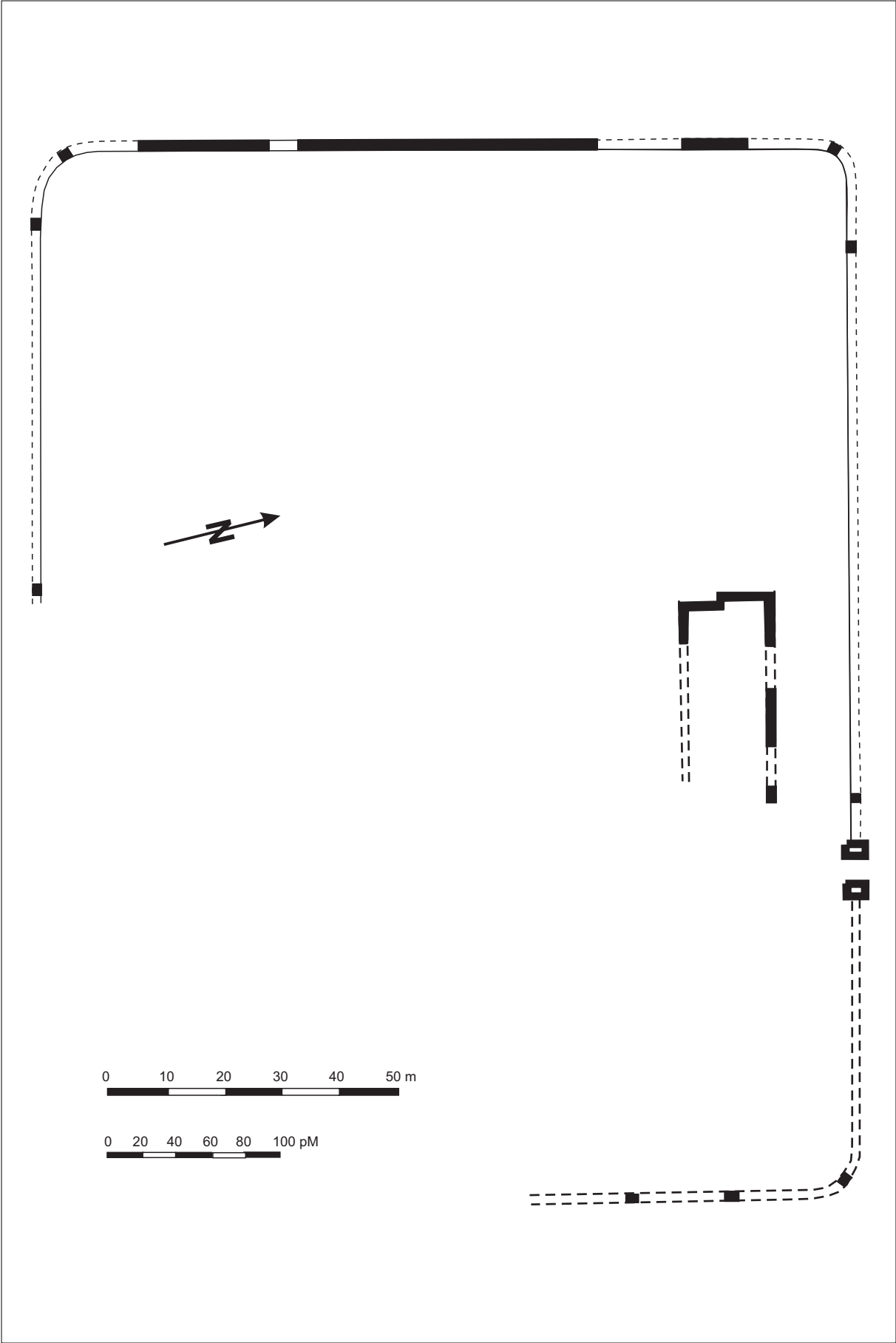
Pl. 21. Tibicum (redrawn after Benea, Bona 1994, Fig. 4).



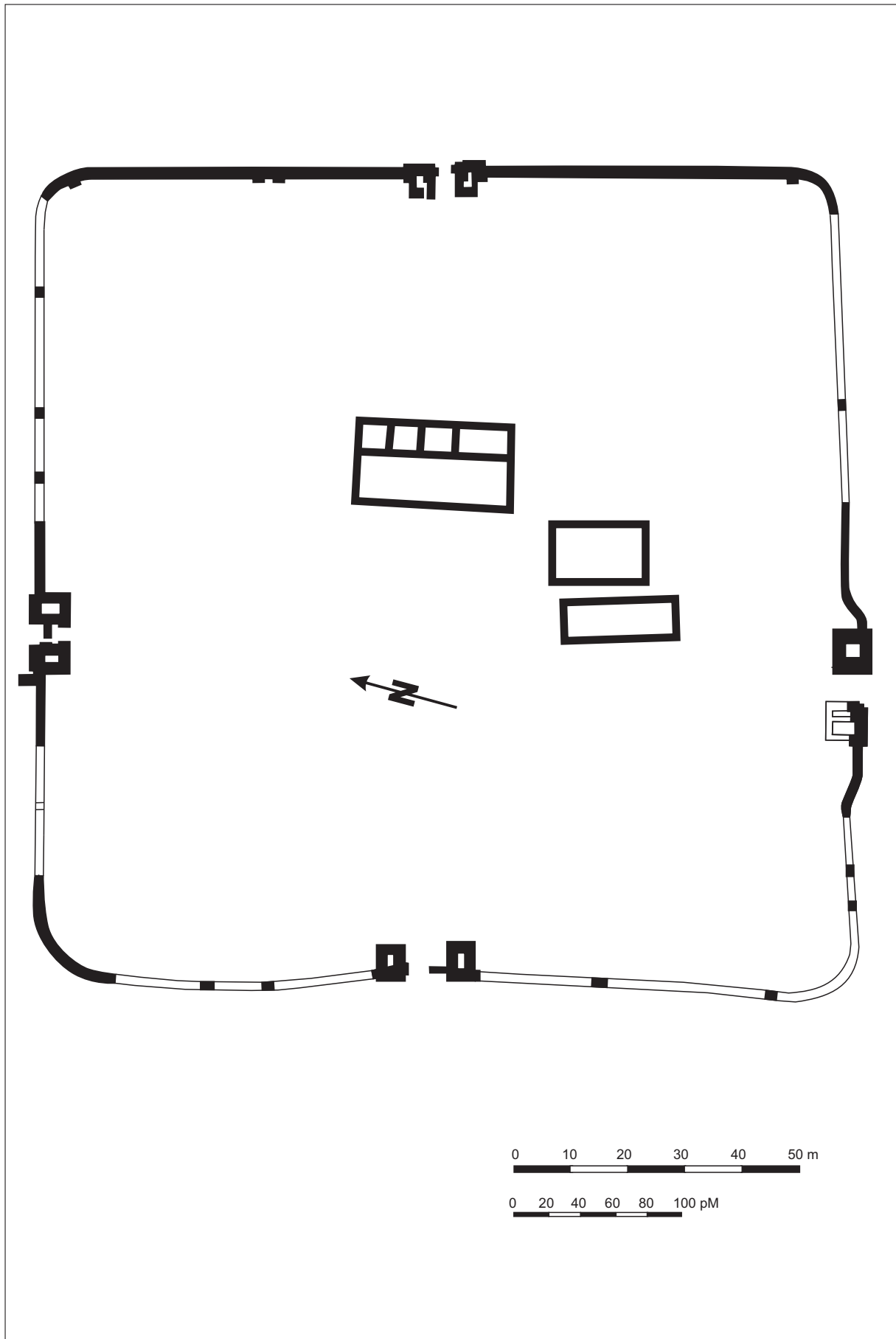
Pl. 22. Cigmău (redrawn after Hanson, Oltean 2003, Fig. 5).



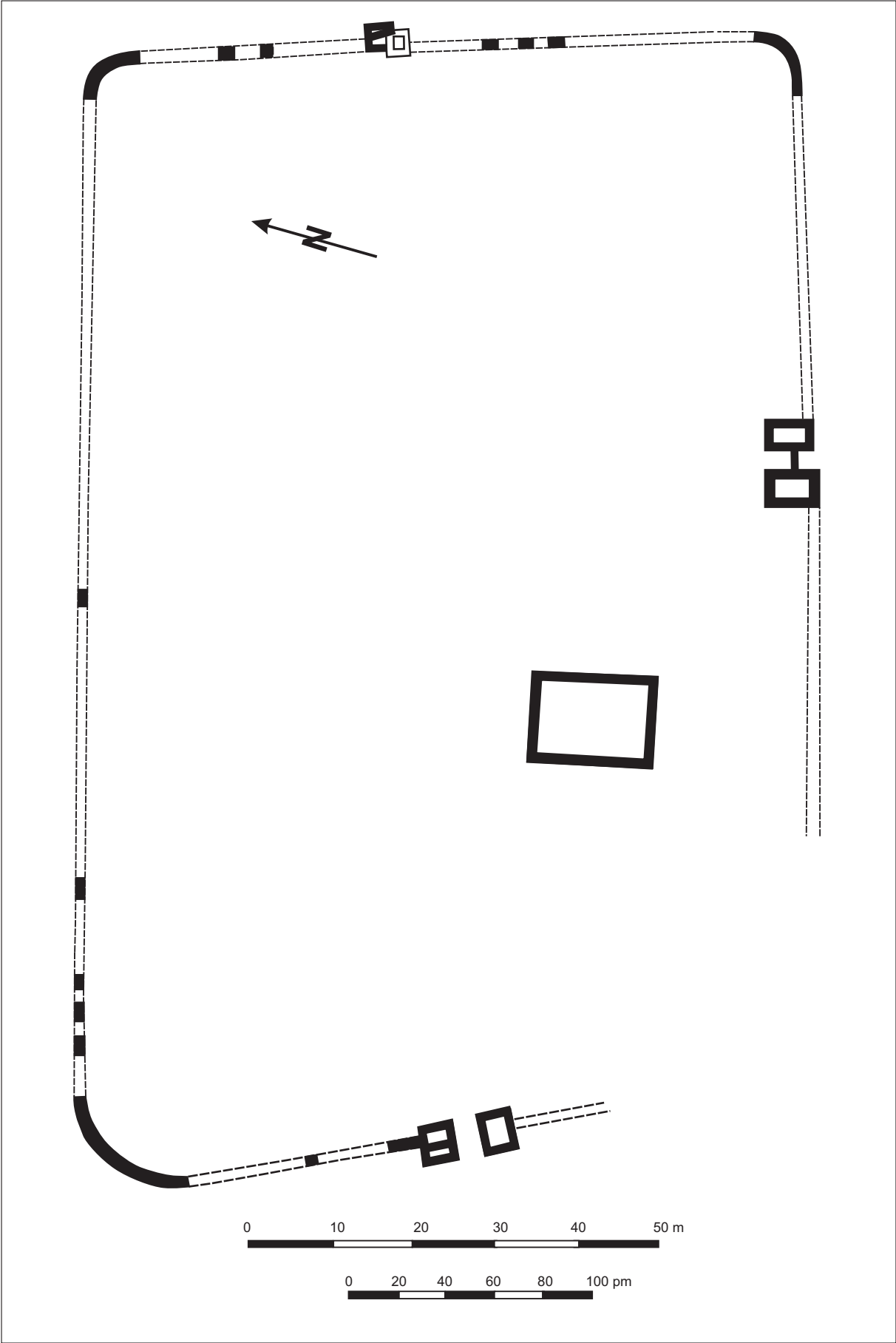
Pl. 23. Bumbesti (redrawn after Gudea 1997, no. 92).



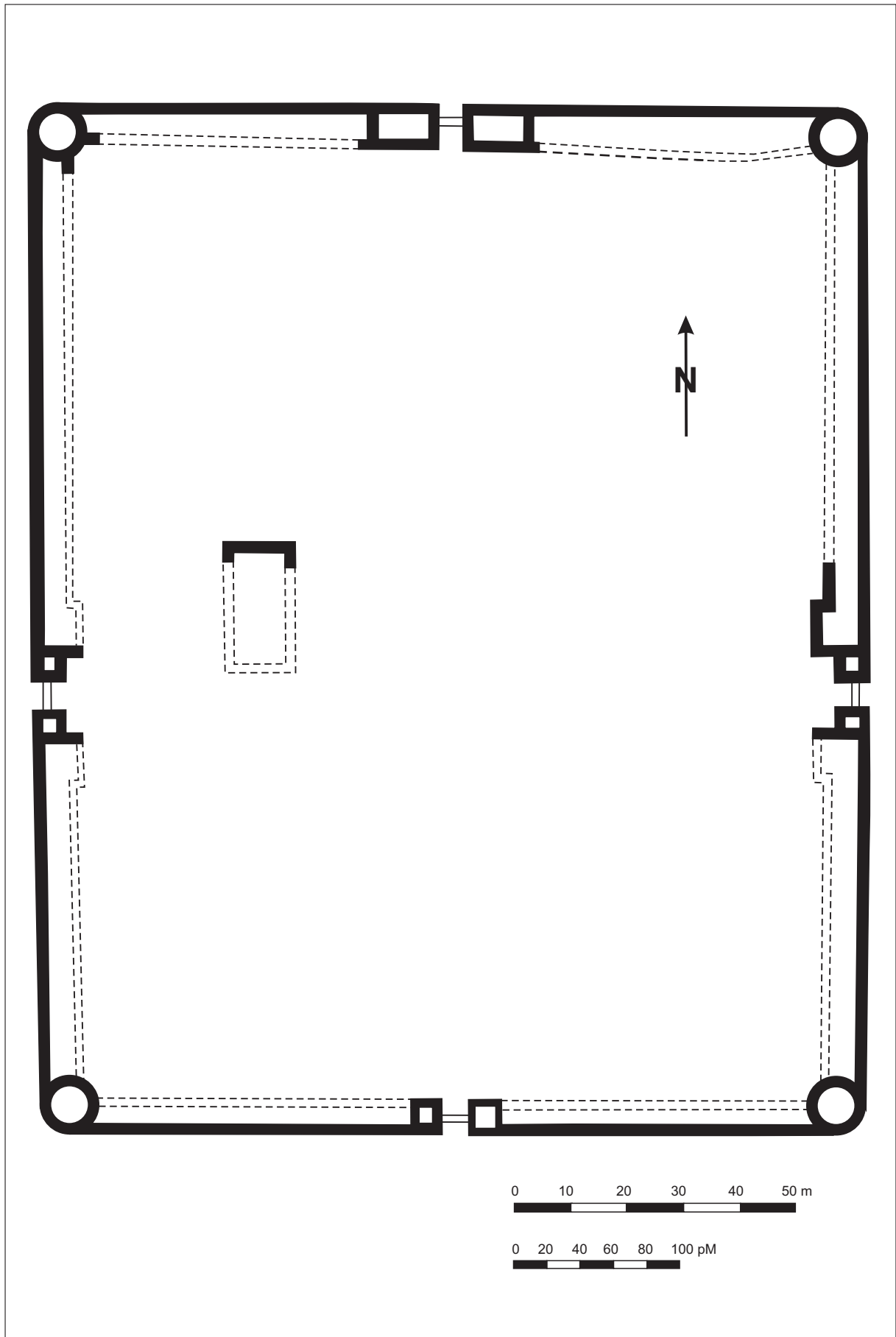
Pl. 24. Brâncovenești (redrawn after Gudea 1997d, no. 32).



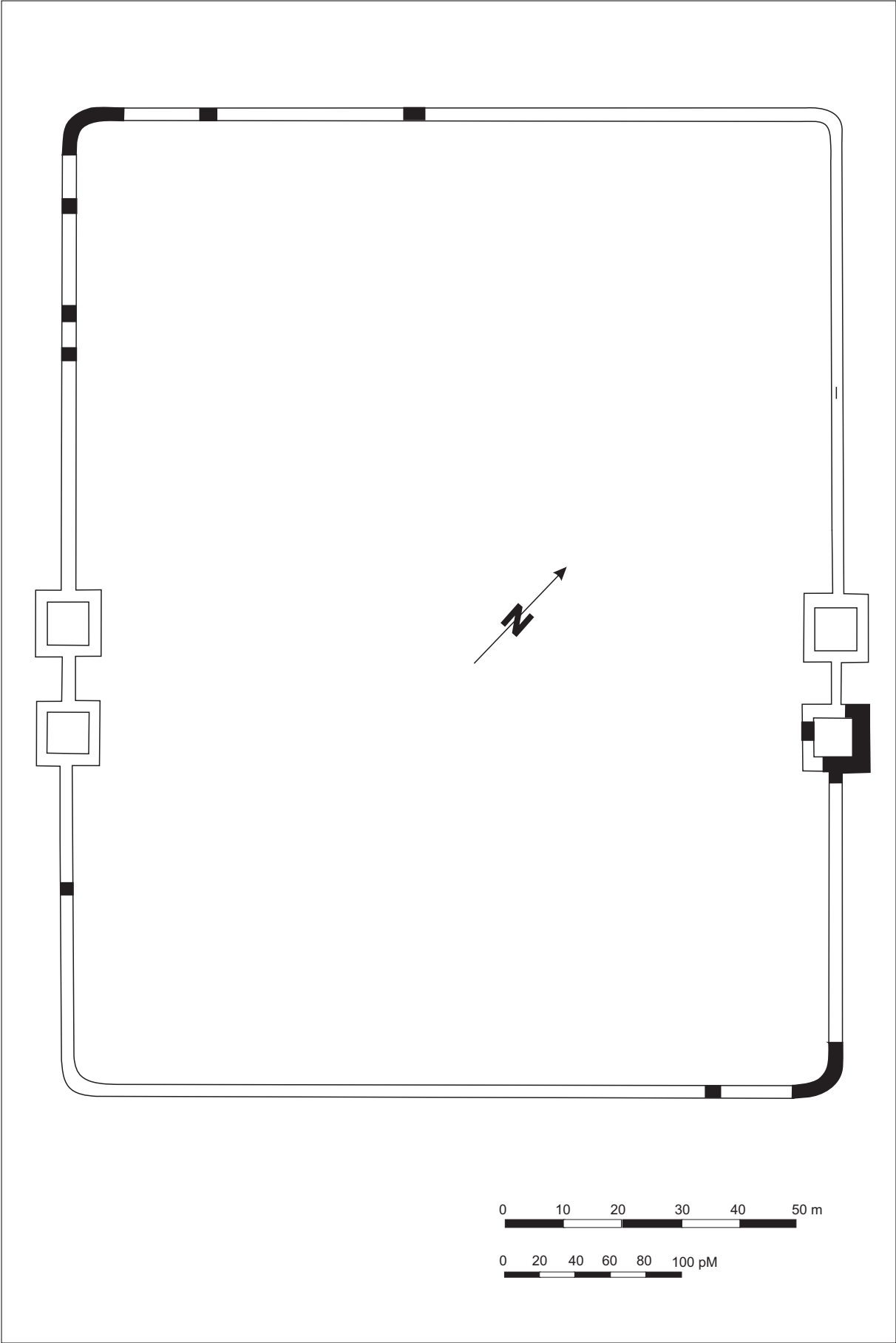
Pl. 25. Inlăceni (redrawn after Gudea 1997d, no. 35).



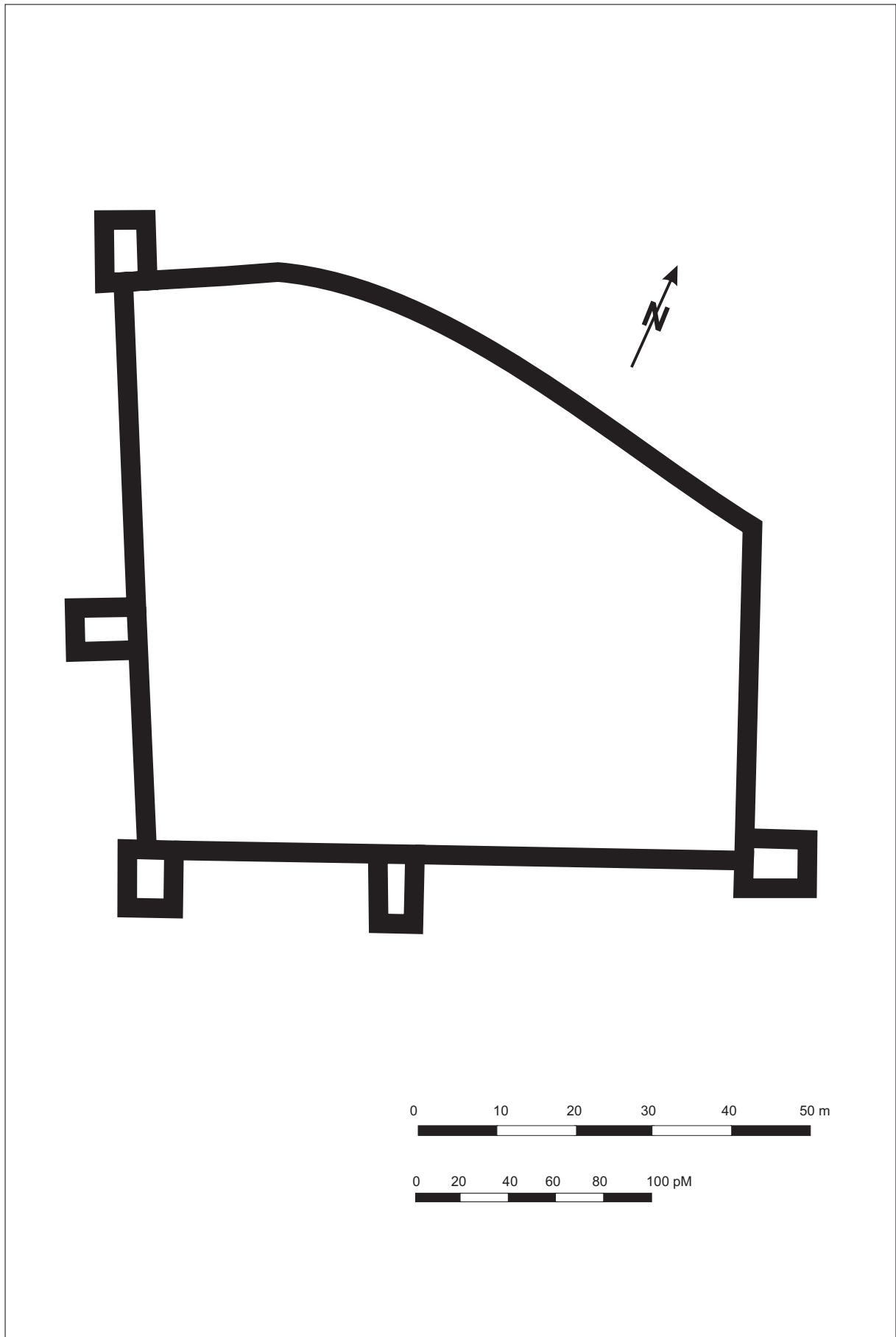
Pl. 26. Olteni (redrawn after Gudea 1999d, no. 38).



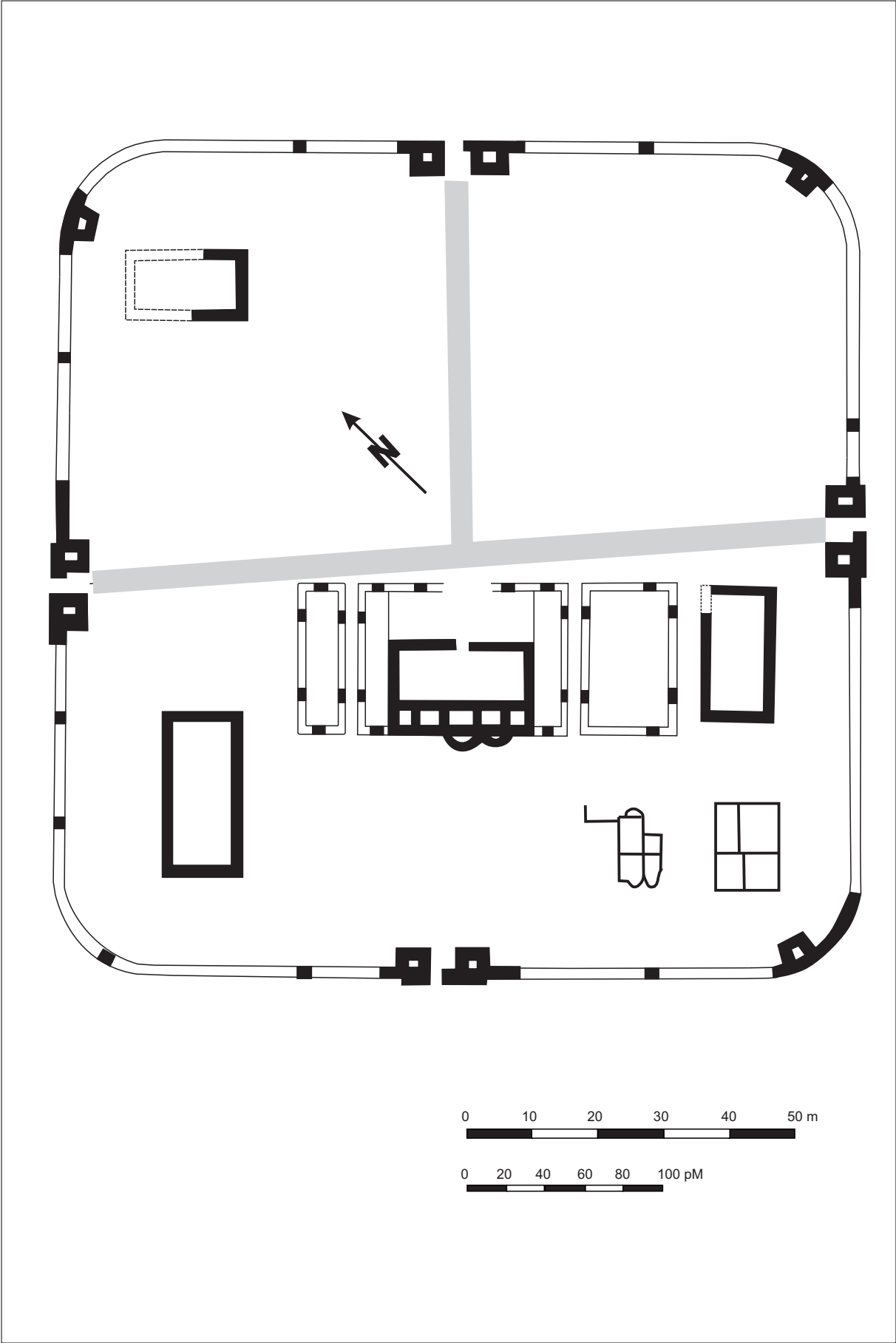
Pl. 27. Brețcu (redrawn after Gudea 1980, Fig. 9.2).



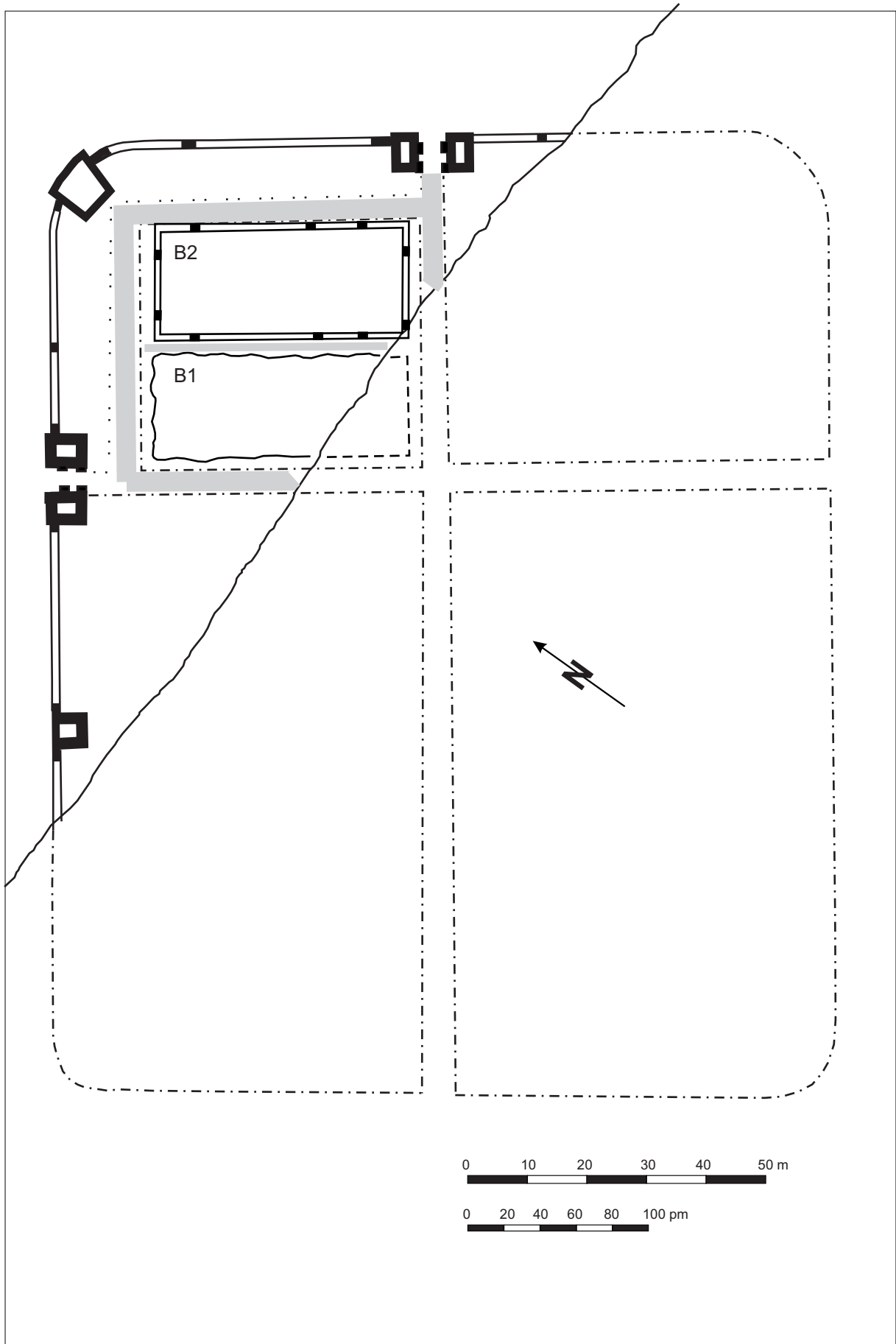
Pl. 28. Boroşneul Mare (redrawn after Gudea 1997d, no. 40).



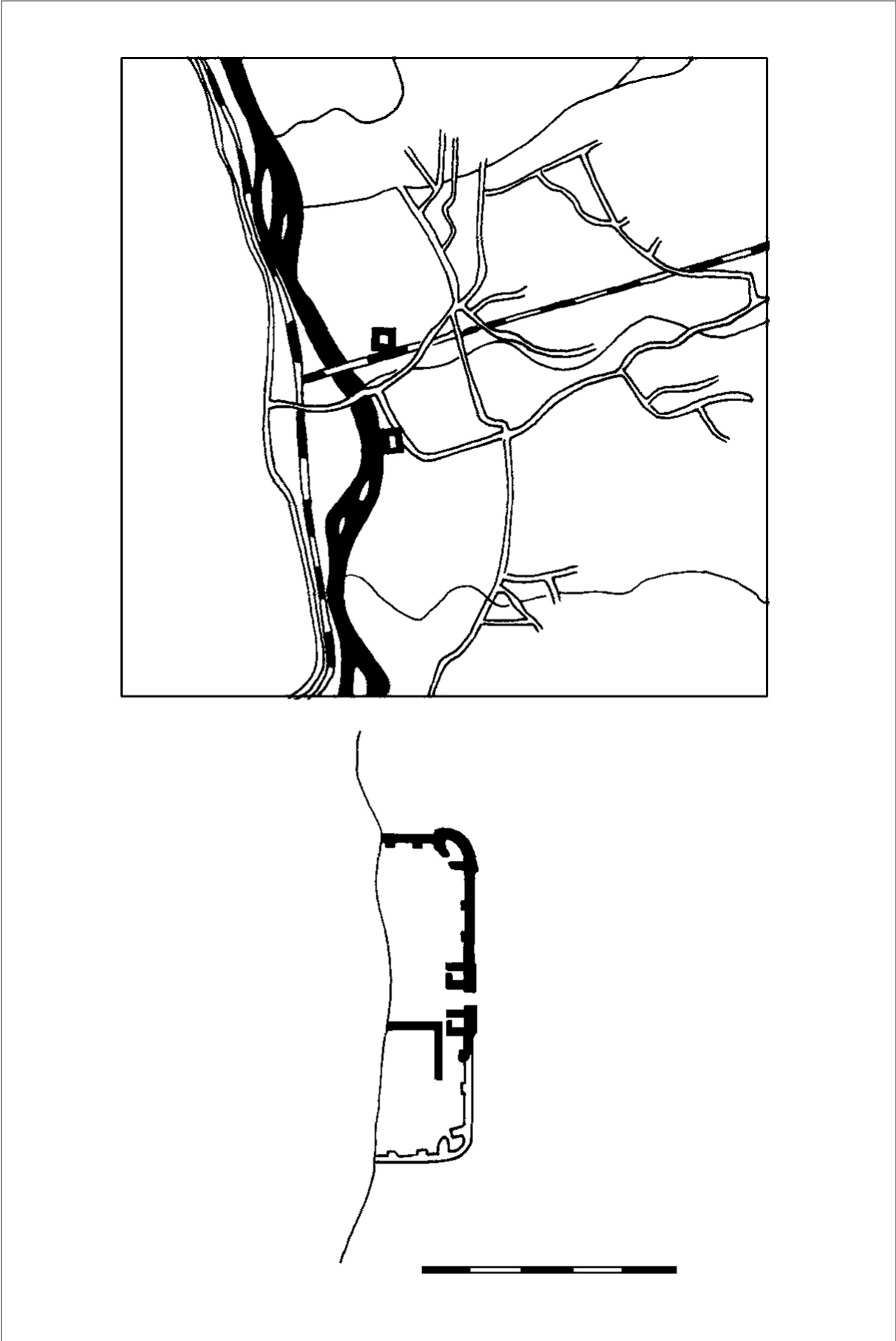
Pl. 29. Comalău (redrawn after Gudea 1997d, no. 41).



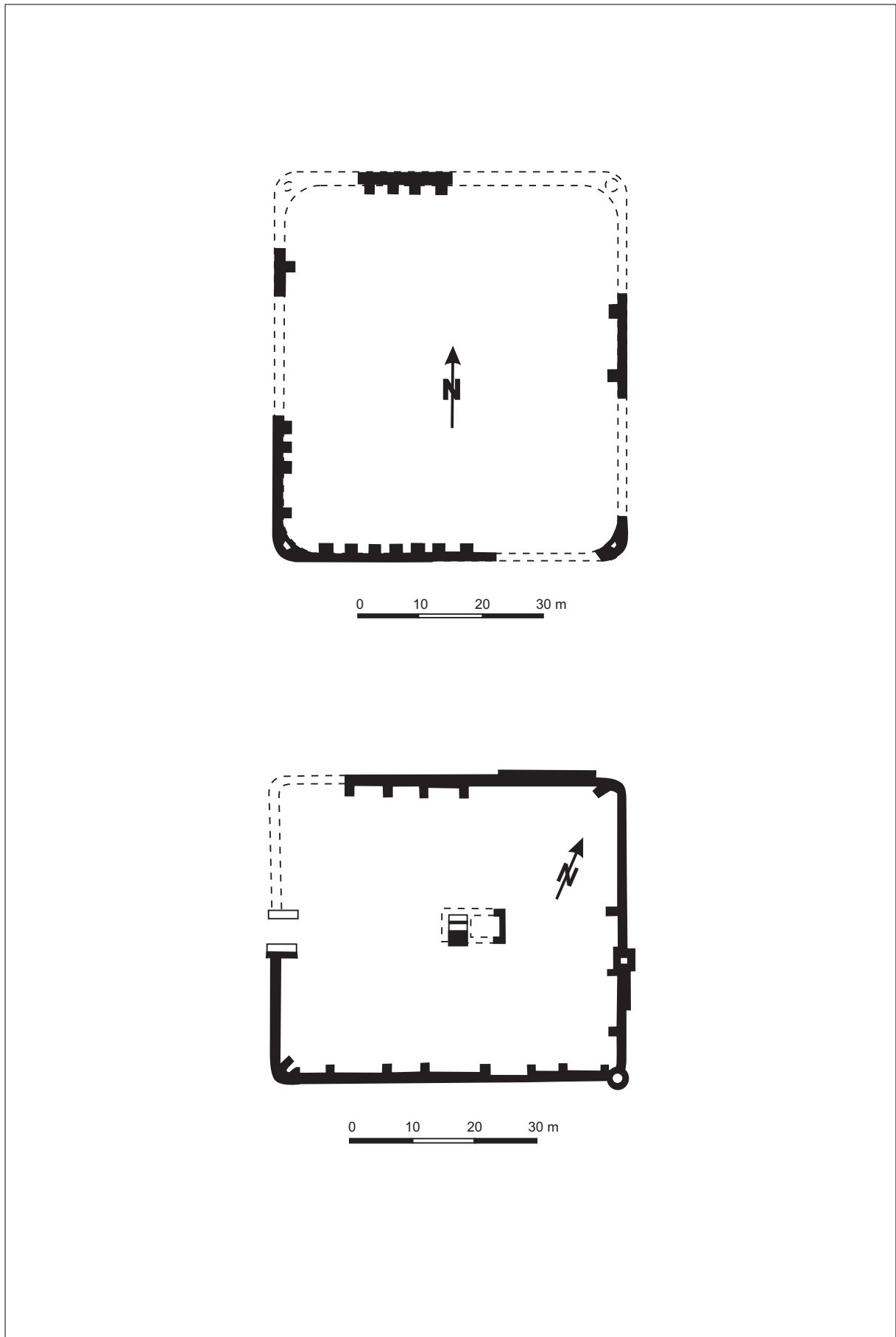
Pl. 30. Râșnov (redrawn after Gudea, Pop 1973, Fig. 1).



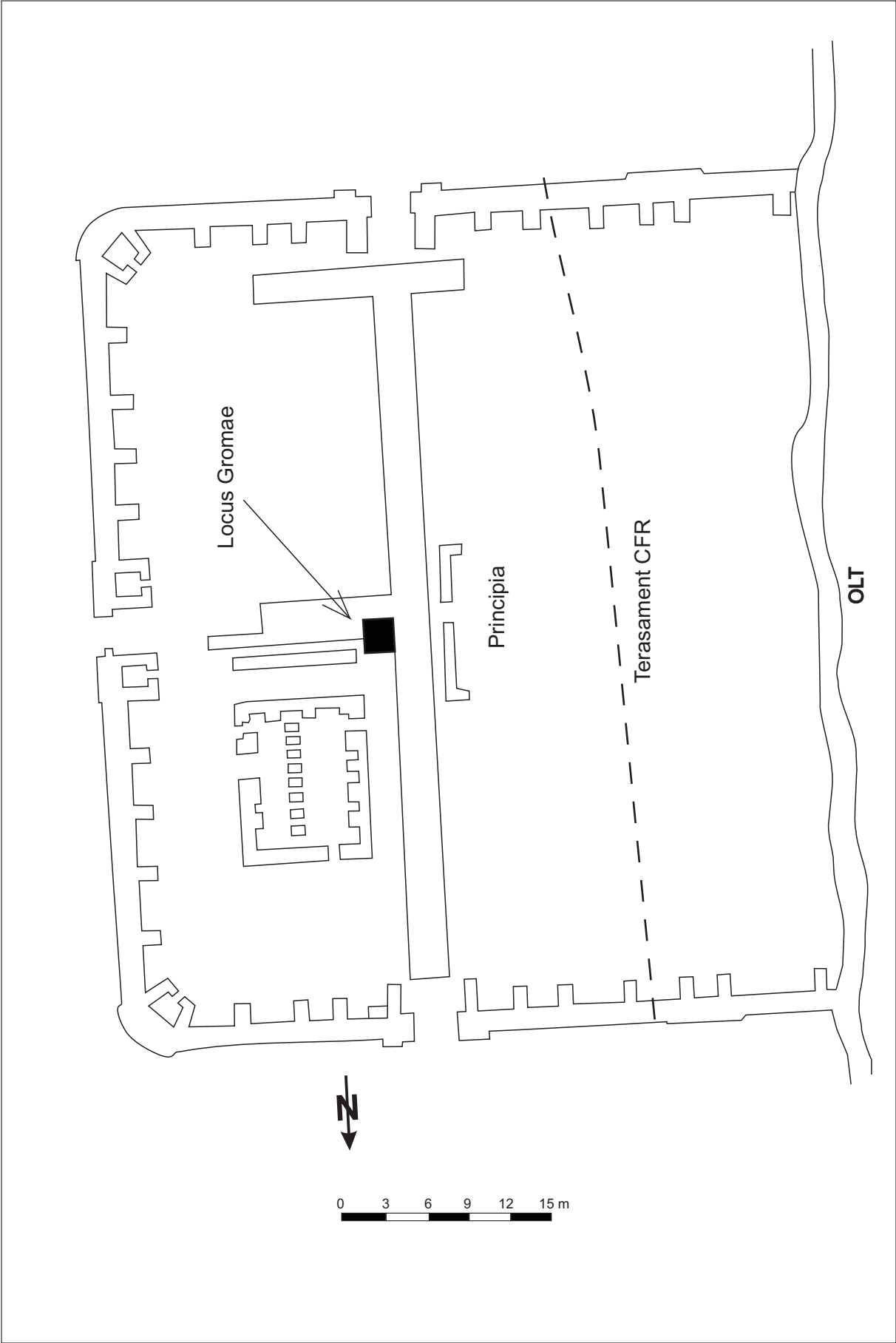
Pl. 31. Feldioara (redrawn after Gudea 1997d, no. 45).



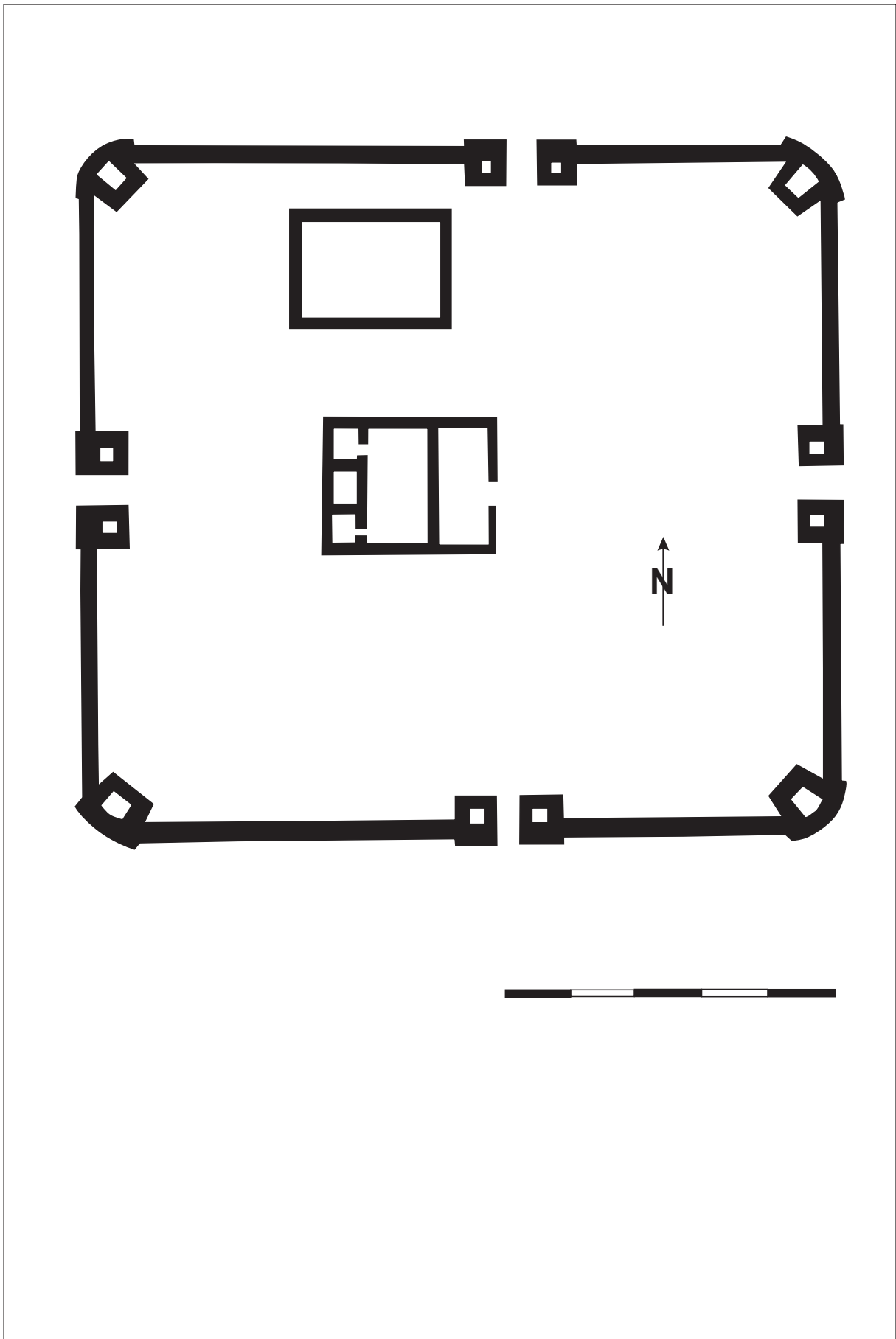
Pl. 32. Copăceni (after Gudea 1997 d, no. 81).



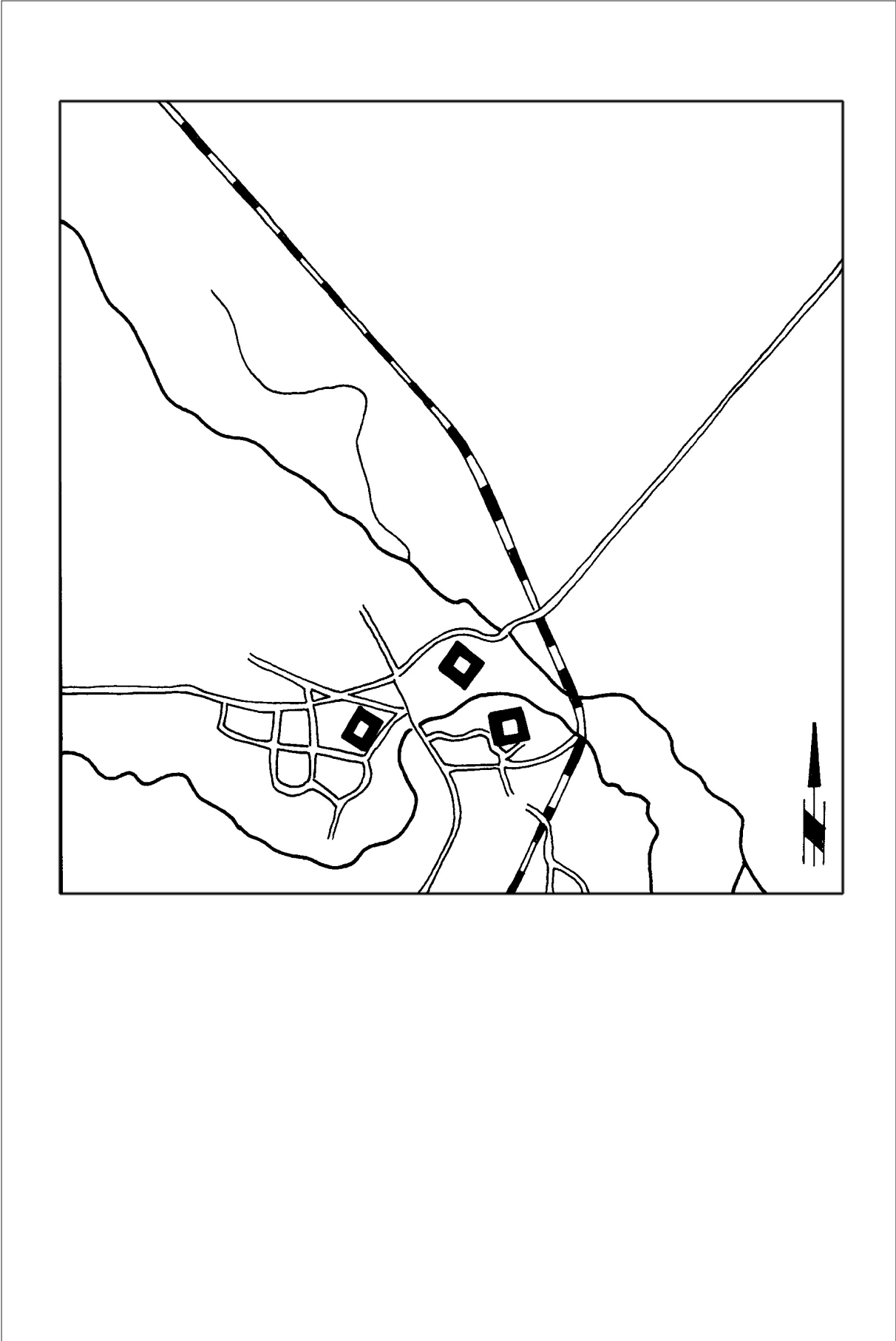
Pl. 33. 1. Rădăcinești (after Gudea 1997d, no. 77); 2. Titești (after Gudea 1997, no. 80).



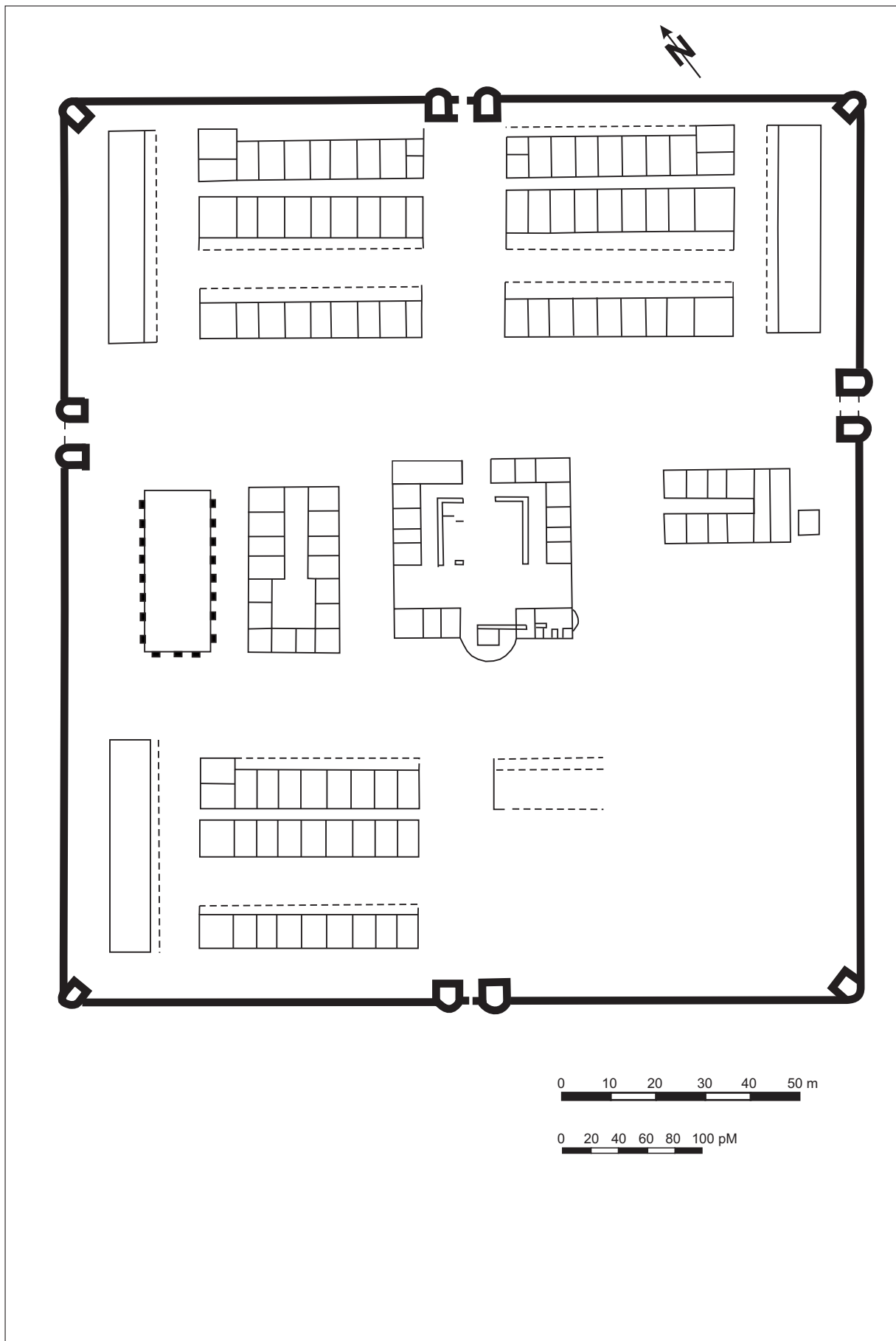
Pl. 34. Bivolari-Arutela (redrawn after Tudor 1969–1970, Fig. 15).



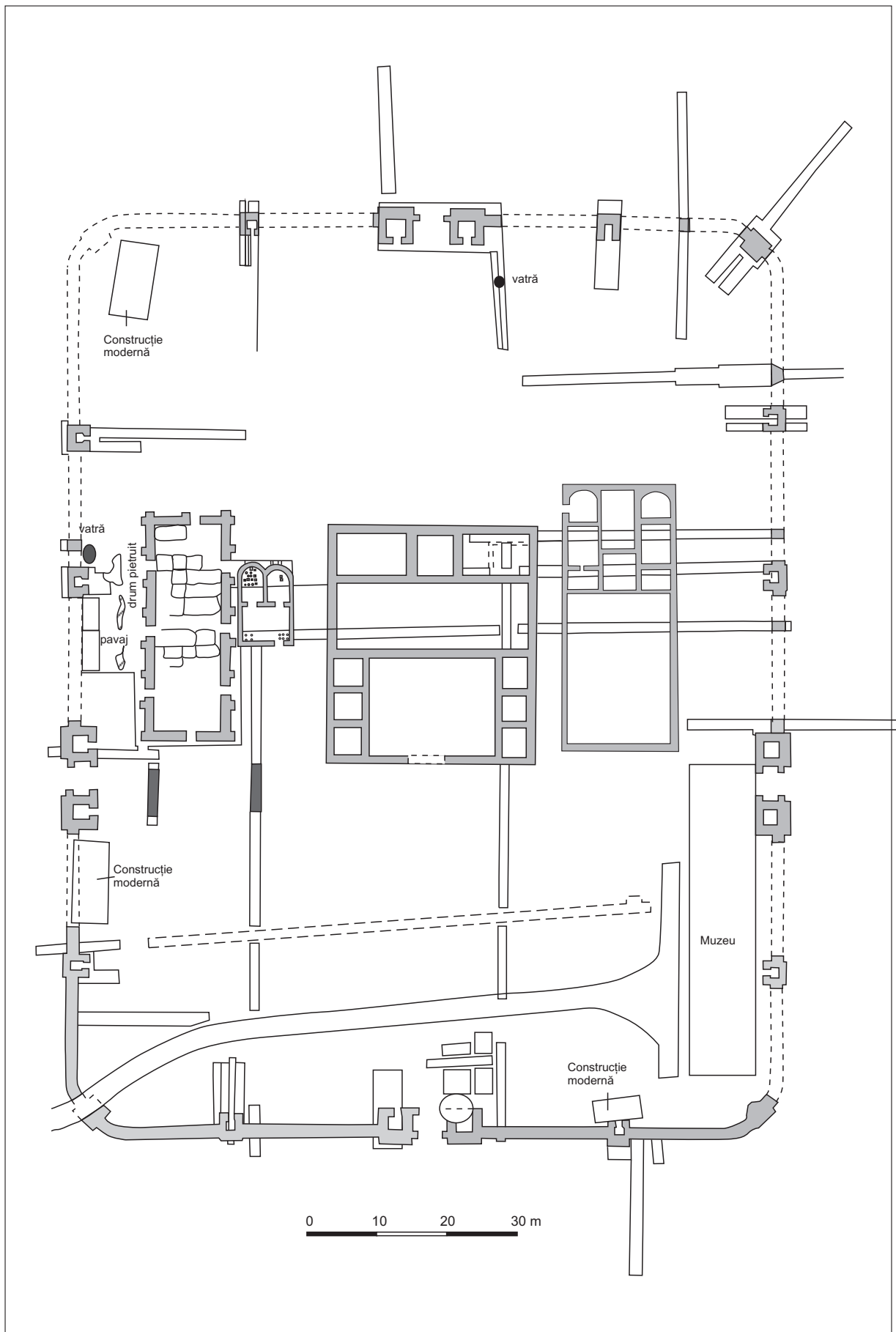
Pl. 35. Racovița (redrawn after Gudea 1997d, no. 82).



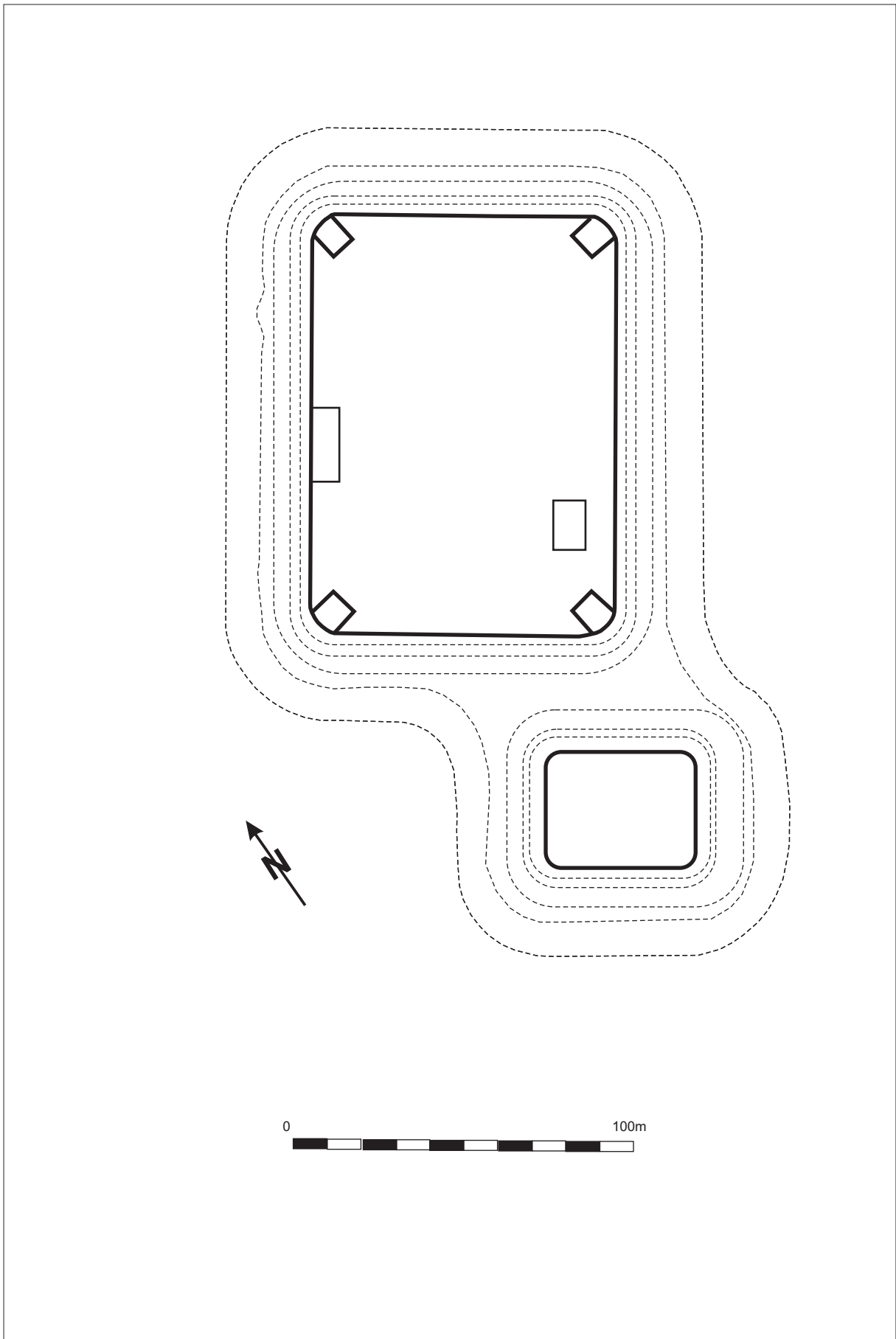
Pl. 36. Romula (after Gudea 1997d, no. 70).



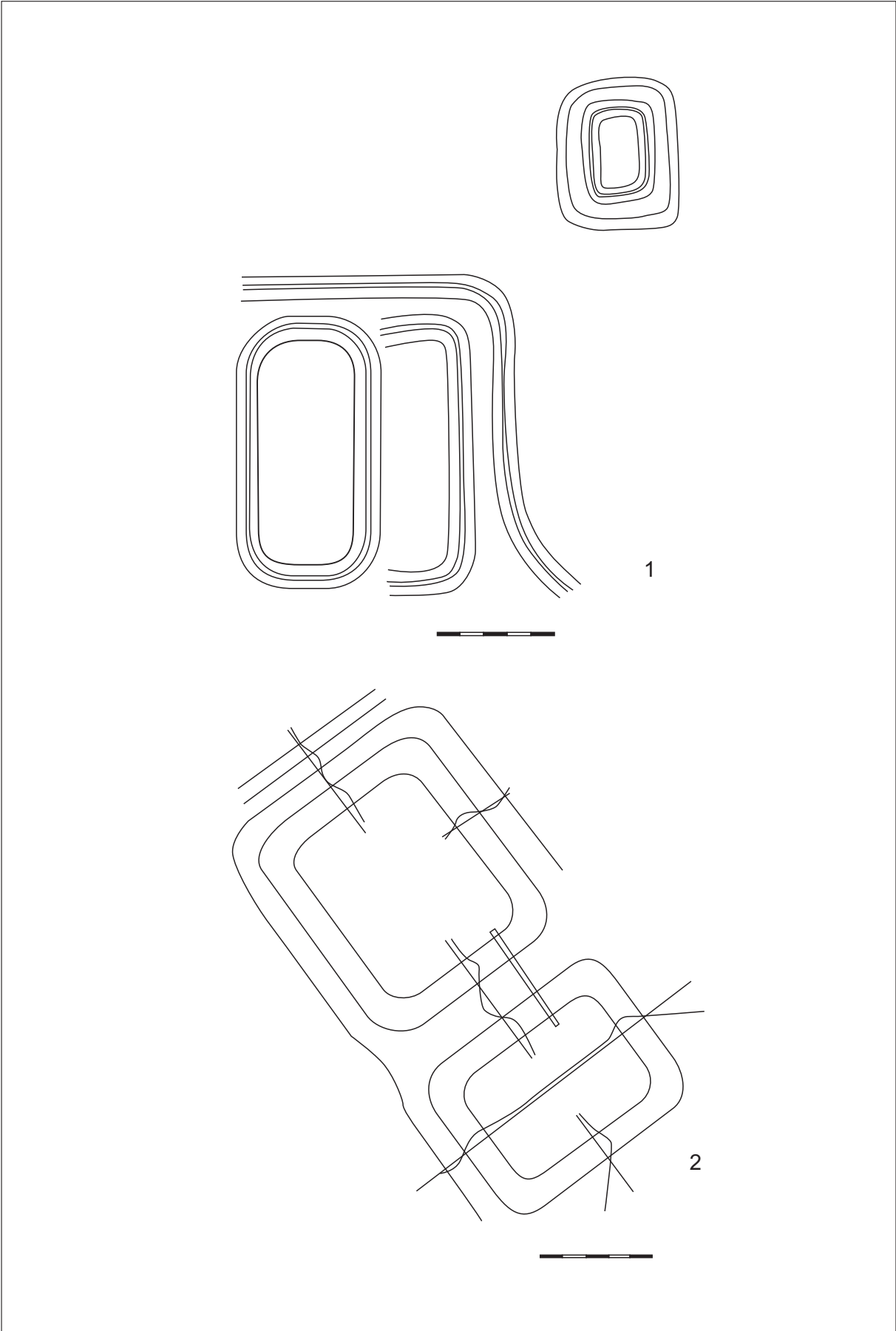
Pl. 37. Slăveni (redrawn after Gudea 1997d, no. 69).



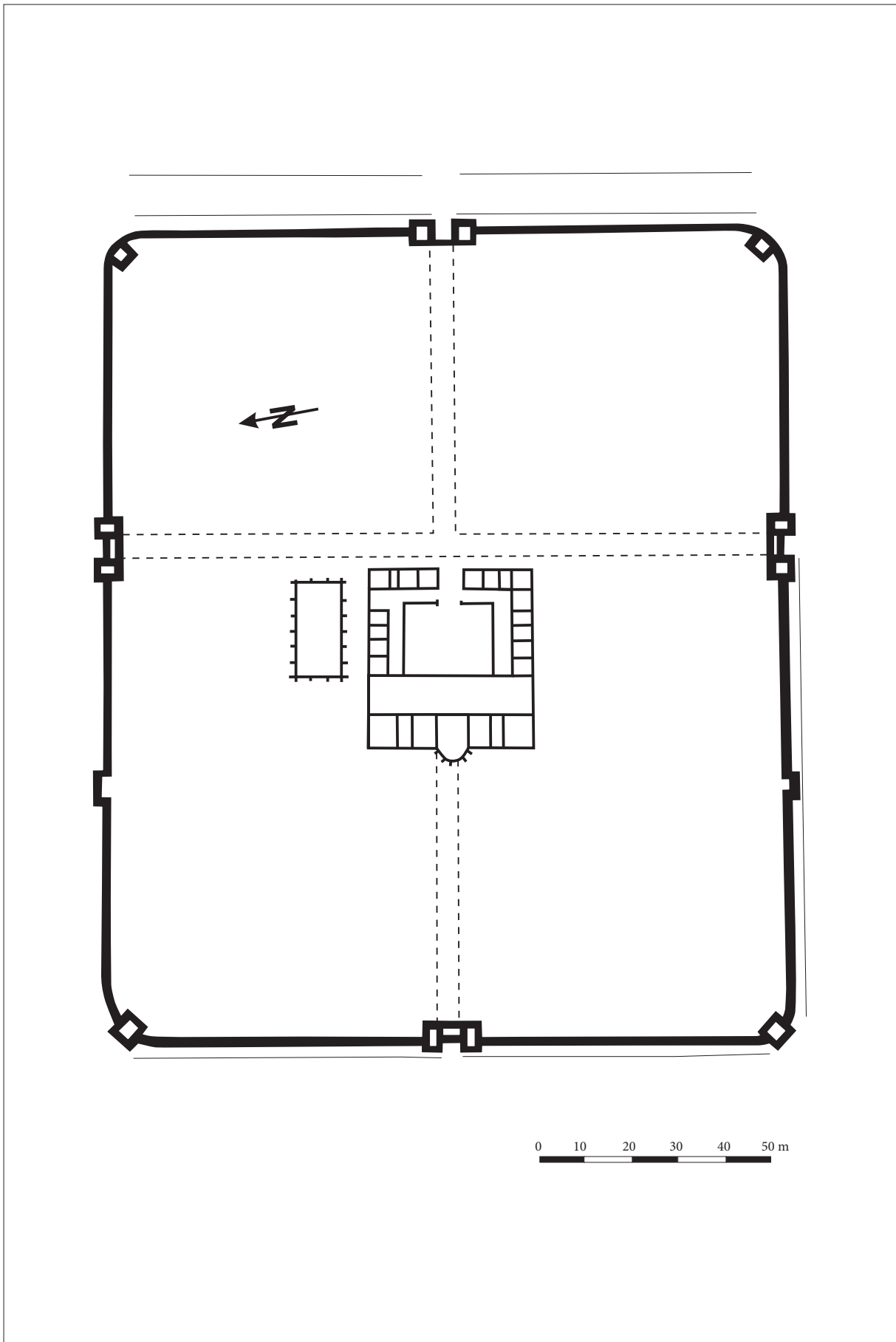
Pl. 38. Câmpulung-Jidava (redrawn after Avram, Petolescu 1997).



Pl. 39. Săpata de Jos (redrawn after Gudea 1997d, no. 62).



Pl. 40. 1. Băneasa (redrawn after Gudea 1997d, no. 50); 2. Urluieni (after Bogdan-Cătănicu 1997).



Pl. 41. Răcari (after Gudea 1997d, no. 89).