

# EPHEMERIS NAPOCENSIS

XXV

2015

**ROMANIAN ACADEMY**  
INSTITUTE OF ARCHAEOLOGY AND HISTORY OF ART CLUJ-NAPOCA

**EDITORIAL BOARD**

Editor: Coriolan Horațiu Opreanu

Members: Sorin Cociș, Vlad-Andrei Lăzărescu, Ioan Stanciu

**ADVISORY BOARD**

Alexandru Avram (Le Mans, France); Mihai Bărbulescu (Rome, Italy); Alexander Bursche (Warsaw, Poland); Falko Daim (Mainz, Germany); Andreas Lippert (Vienna, Austria); Bernd Päßgen (Munich, Germany); Marius Porumb (Cluj-Napoca, Romania); Alexander Rubel (Iași, Romania); Peter Scherrer (Graz, Austria); Alexandru Vulpe (Bucharest, Romania).

Responsible of the volume: Coriolan Horațiu Opreanu

În țară revista se poate procura prin poștă, pe bază de abonament la: EDITURA ACADEMIEI ROMÂNE, Calea 13 Septembrie nr. 13, sector 5, P. O. Box 5–42, București, România, RO–76117, Tel. 021–411.90.08, 021–410.32.00; fax. 021–410.39.83; RODIPET SA, Piața Presei Libere nr. 1, Sector 1, P. O. Box 33–57, Fax 021–222.64.07. Tel. 021–618.51.03, 021–222.41.26, București, România; ORION PRESS IMPEX 2000, P. O. Box 77–19, București 3 – România, Tel. 021–301.87.86, 021–335.02.96.

**EPHEMERIS NAPOCENSIS**

Any correspondence will be sent to the editor:  
INSTITUTUL DE ARHEOLOGIE ȘI ISTORIA ARTEI  
Str. M. Kogălniceanu nr. 12–14, 400084 Cluj-Napoca, RO  
e-mail: choprean@yahoo.com

All responsibility for the content, interpretations and opinions  
expressed in the volume belongs exclusively to the authors.

DTP și tipar: MEGA PRINT  
Coperta: Roxana Sfârlea



© 2015 EDITURA ACADEMIEI ROMÂNE  
Calea 13 Septembrie nr. 13, Sector 5, București 76117  
Telefon 021–410.38.46; 021–410.32.00/2107, 2119

ACADEMIA ROMÂNĂ  
INSTITUTUL DE ARHEOLOGIE ȘI ISTORIA ARTEI



# EPHEMERIS NAPOCENSIS

XXV  
2015



EDITURA ACADEMIEI ROMÂNE



## SUMAR – SOMMAIRE – CONTENTS – INHALT

### STUDIES

- SABIN ADRIAN LUCA, FLORENTINA MĂRCUȚI, VASILE PALAGHIE  
Prehistoric Signs and Symbols in Transylvania (2). “The Sacred Pair” and “The Bird of the Soul”. The Neolithic and Aeneolithic Settlement from Tărtăria-Gura Luncii (Alba County).....7
- MAGDALENA ȘTEFAN, DAN ȘTEFAN, DAN BUZEA  
From Sites to Landscapes in Late Second Iron Age Eastern Transylvania. New Perspectives on the Fortified Sites from Jigodin.....21
- TOMÁS VEGA AVELAIRA  
Aqua Querquennae (Porto Quintela, Ourense. España): un campamento romano en el NW de Hispania.....43
- FELIX TEICHNER  
*Ulpiana – Iustiniana secunda* (Kosovo): Das urbane Zentrum des dardanischen Bergbaubezirks.....81
- MAREK OLEŹKI  
Marcomanni and Quadi in the System of Client “States” of the Roman Empire.....95
- ROXANA GRINDEAN, VLAD-ANDREI LĂZĂRESCU, ANDREI-COSMIN DIACONU, CORIOLAN HORĂȚIU OPREANU, SORINA FĂRCAȘ, IOAN TANȚĂU  
The Usefulness of Interdisciplinary Studies: Palaeoecological and Archaeological Aspects from NW Romania.....105

### ARCHAEOLOGICAL AND EPIGRAPHICAL NOTES

- ROMEO CÎRJAN  
La nomination des candidats aux magistratures et les sacerdoxes municipaux selon *Lex Troesmensium*, ch. XXVII.....135
- EUGENIA BEU-DACHIN, CRISTIAN-AUREL ROMAN, LUCA-PAUL PUPEZĂ  
Aurelius Annianus, Procurator in Napoca.....147
- JUAN JOSÉ PALAO VICENTE  
Reburus Taporî, un centurión auxiliar olvidado.....167
- VLADIMIR P. PETROVIĆ  
Les bornes milliaires de la Mésie Supérieure : contribution à l'ancienneté des voies et à l'interprétation des itinéraires romaines.....177

ALEXANDRU AVRAM	
Un tribun de la <i>Legio XIII Gemina</i> dans une inscription tomitaine presque oubliée.....	185
MARIANA PROCIUC, VLAD-ANDREI LĂZĂRESCU	
Archaeozoological Data from Suceag Settlement.....	189
DÉNES HULLÁM	
People under the Dam. Migration Period Sites from the Bakonszeg Section of the Berettyó River.....	203
MÁRTA DARÓCZI-SZABÓ	
The Assessment of the Archaeozoological Material of the Migration Period Sites from Bakonszeg.....	229
KINGA HORVÁTH, TAMÁS HAJDU	
The Anthropological Material of the Avar Period Grave from Bakonszeg-Kórógy.....	233
FERENC GYULAI	
Analisis of the Food Remains from the Avarian Age Pot of Bakonszeg-Kórógy.....	235

## REVIEWS

Marko Dizdar, <i>Zvonimirovo-Veliko polje. Groblje latenske culture 1 – A Cemetery of the La Tène Culture 1</i> (Monographiae Instituti Archaeologici 8), Zagreb 2013, 552 p. ....	239
Matteo Tauffer (ed.), <i>Sguardi interdisciplinari sulla religiosità dei Geto-Daci</i> (Rombach Wissenschaften – Reihe Paradeigmata, Band 23), Rombach Verlag (Freiburg i. Br./Berlin/Wien 2013), 250 p.....	243
Daniela Leggio, <i>Riti e culti ad Akrai. Interpretazione del complesso sacro. Scavi 2005–2006</i> , Siracusa, 2013. XII+73 pp., ISBN: 978-88-909032-0-5.....	247
Petar Selem, Inga Vilogorac Brčić, <i>ROMIC I. Religionum Orientalum monumenta et inscriptiones ex Croatia I</i> , Znakovi I Riječi Signa et Litterae vol. V. (Zagreb, 2015), 183 p.....	251

# FROM SITES TO LANDSCAPES IN LATE SECOND IRON AGE EASTERN TRANSYLVANIA. NEW PERSPECTIVES ON THE FORTIFIED SITES FROM JIGODIN\*

Magdalena Ștefan, Dan Ștefan, Dan Buzea

**Abstract:** *The study reassess the late Iron Age archaeological landscape in the Ciuc Depression, in eastern Transylvania, using recently obtained data regarding the layout of fortified sites and their relation with the surrounding environment, by employing close-range remote sensing, historical cartography, spatial analyses and field-surveys. The agglomeration of 5 fortified sites around Jigodin-Băi, mainly contemporaneous, in a 5 km range area, is the starting point for investigating the degree of connection of the local communities to the large-scale late Iron Age phenomena of increase in social complexity and development of proto-urban human agglomerations. Among the addressed issues we count: the relation between central place and territory, site size, patterns of habitation, relation between fortified sites and mineral resources and the identification of environmental change.*

**Keywords:** *Dacians, fortress, digital elevation model, site and territory, multifocal agglomeration*

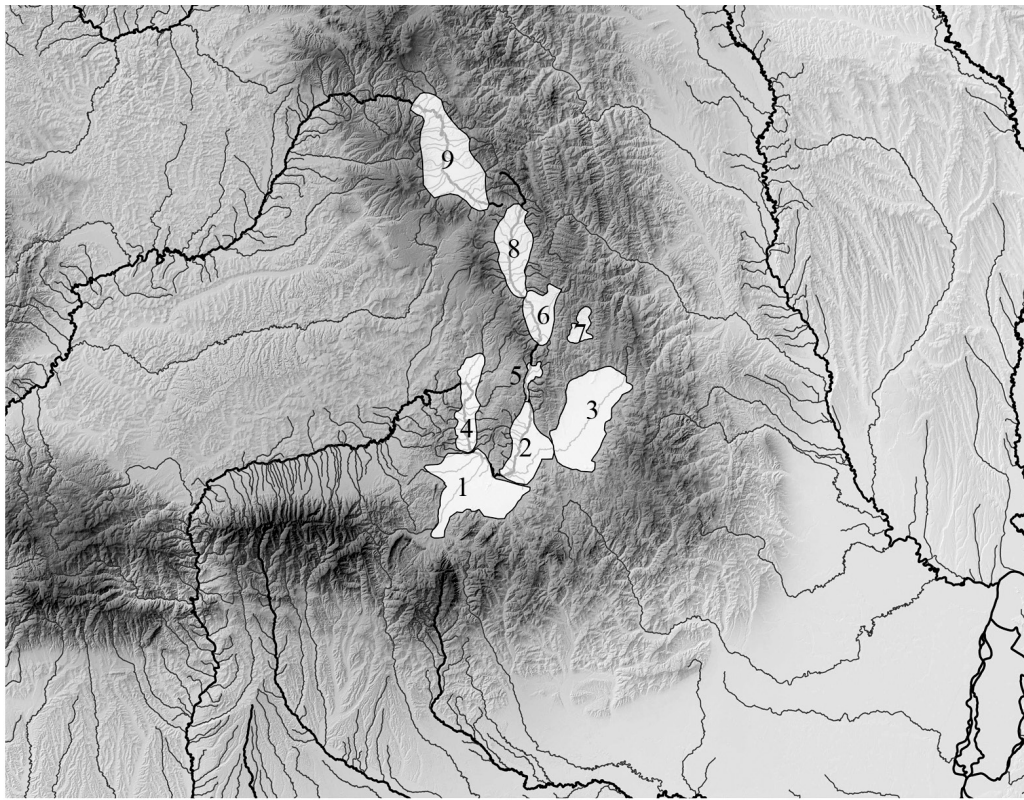
The Ciuc Depression, formed between the volcanic Harghita Mountains in the west and the Ciuc sedimentary massifs in the east, develops on both sides of the river Olt, in its upper sector, having a north-south orientation. It is a small open space, delimited on all sides by high hills and mountains. The visibility from any of these elevated positions towards the lowlands during clear days is far-reaching. This makes the Ciuc Depression in its entirety to resemble a huge naturally fortified site, a reality which must have had consequences on the ancient perception of space, borders and neighbours. The depression is characterized by thermic inversions, fact that determines the persistence of a very cold micro-climate with medium temperatures of 17 degrees Celsius in the summer and -6 degrees Celsius in the winter. The depression is divided in two main sectors in the area of Miercurea Ciuc city, where the mountain sides get close to form a gorge. Along 7 kilometres, the Olt river valley passes through a narrow gate, 300–500 m wide, bordered directly by heights, after which it opens again into the wider space of the inferior segment of the depression (fig. 1, 2, Pl. I, II, VIII d). This natural barrier between two open areas has been exploited as strategic control passing point and crossroad, along various epochs<sup>1</sup>.

On the right bank of river Olt, in the vicinity of Miercurea Cuc and Jigodin-Băi, before its entrance in the gorge, three sites fortified with stone enclosures were known since the 19<sup>th</sup> century<sup>2</sup>. They were labelled Jigodin I (on the hill *Câmpu Morii/Malomföld*), II (on the hill

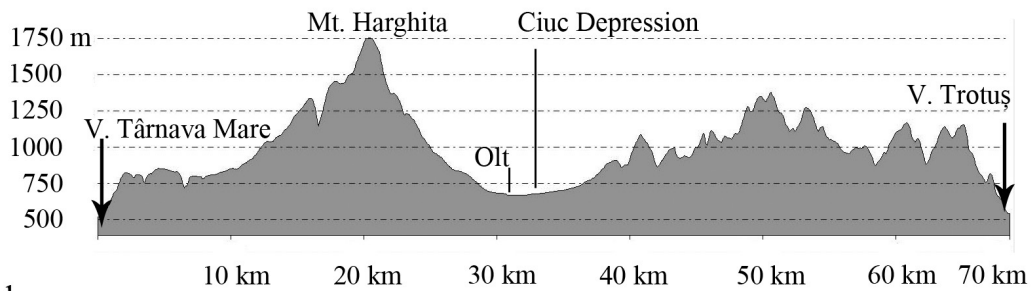
\* Research funded by the project – ‘MINERVA – Cooperation for an elite career in the doctoral and post-doctoral research’, contract code POSDRU/159/1.5/S/137832, project cofounded from the European Social Fond through the Sectorial Operational Programme for the Development of Human Resources 2007–2013.

<sup>1</sup> Lelicieni fortified site (Bronze Age); Miko castle in Miercurea Ciuc (17<sup>th</sup> c.); *Cetatea fără Nume* on Șumuleu mountain with stone walls, unknown date (RAJH).

<sup>2</sup> ORBÁN 1868–1871.



a.



b.

Fig. 1. a – General map of the micro-depressions located in south-eastern and eastern Transylvania: 1 – Brașov, 2 – Sf. Gheorghe, 3 – Târgu Secuiesc, 4 – Baraolt, 5 – Bixad, 6 – Inferior Ciuc, 7 – Cașin, 8 – Upper and Middle Ciuc, 9 – Giurgeu; b – east-west altimetric profile through Ciuc Depression and surroundings on DEM Europea.

*Dealul Cetății/Vârhegy*) and III (*Vârful Cetățuii/Dealul Cetății Mici/Kisvártető*). Jigodin I and III are located on elevated volcanic rocky promontories above the Olt valley, at less than 1.5 km distance one of another; while Jigodin II was built 2.5 km behind these two, on the first row of high hills belonging to the western piedmont of the Depression. Despite some chronological differences, it appears that for a consistent period of time, placed in the interval 1<sup>st</sup> c. BC – 1<sup>st</sup> c. AD, the sites functioned in parallel. On the opposite side of the Olt, at 2.5 km distance from Jigodin I, the Bronze Age built fortification of Lelicești *Muntele de Piatră* was reused and reinforced by Dacians<sup>3</sup> raising to four the number of late Iron Age enclosed positions around the

<sup>3</sup> ROMAN/PĂL/CSĂBA 1973.

gorge, in only a 5 km range area. This unusual agglomeration of dominant sites, simultaneously used in a small area with strategic connotations, was interpreted either as the expression of a local power centre<sup>4</sup> or just as a division of a large defensive system based on fortresses implemented by the Dacian state in the entire eastern Transylvania, grounded on large scale inter-visibility<sup>5</sup>. Some excavations were made here, mostly in Jigodin I, with the latest information published on the occasion of the site's significant destruction by illegal excavations for a telecommunication antenna<sup>6</sup>. A 1950 archaeological expedition<sup>7</sup> briefly trial trenched Jigodin II and III, this last one being again field researched during 1996<sup>8</sup>.

The agglomeration of fortified sites, the rather larger available amount of relevant information comparable with other points locates in Ciuc Depression, but also the lack of more recent field research and the sketchy nature of the older spatial documentation have determined the authors to put the sites under field scrutiny. As a result, during 2015 spring, the fifth fortified site<sup>9</sup> dated to the 1<sup>st</sup> c. BC – 1<sup>st</sup> c. AD period was identified in the vicinity of Jigodin II. In addition, high resolution digital elevation surface models<sup>10</sup> were obtained for Jigodin I and III during close-range aerial surveys, allowing some interesting observations regarding their surfaces and plans.

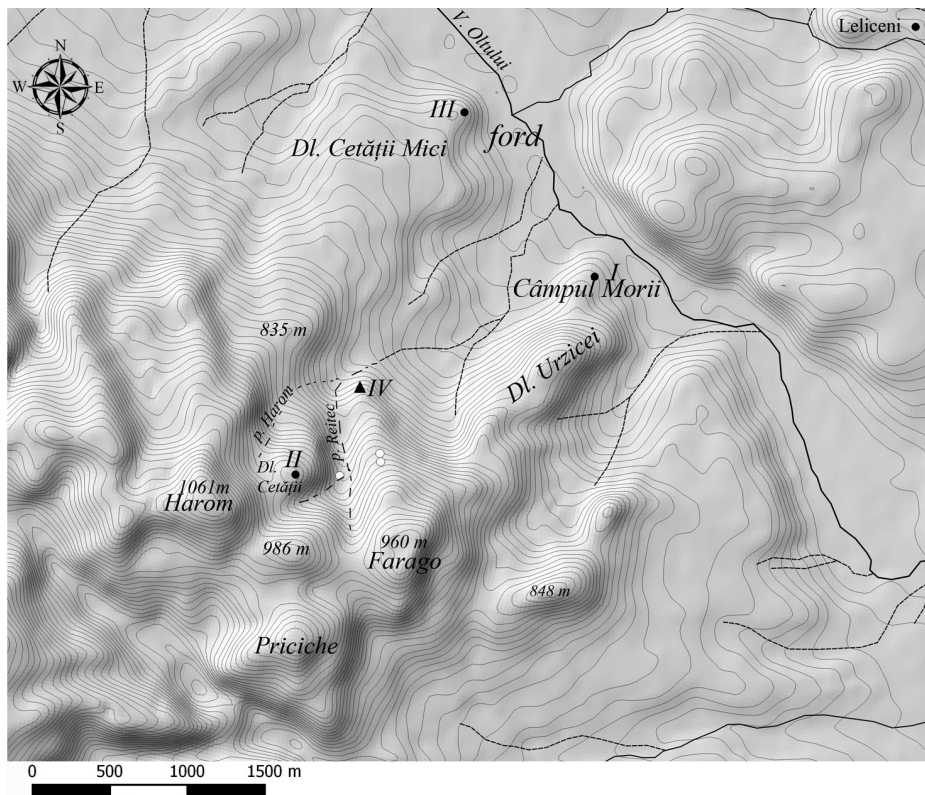


Fig. 2. Jigodin area. Terrain contours were represented at 8 m interval; absolute elevations were taken from DEM-Europa and toponymy from the Military Shooting Plans. White dots stand for worked stones. I–IV – fortified sites from Jigodin area.

<sup>4</sup> FLOREA 2011, 102; CRIȘAN 1996: 397.

<sup>5</sup> CRIȘAN 2000, 98.

<sup>6</sup> CRIȘAN/GHEORGHIU/POPESCU 2004.

<sup>7</sup> MACREA ET ALII 1951.

<sup>8</sup> CRIȘAN 2000; 49–50.

<sup>9</sup> ȘTEFAN/ȘTEFAN/BUZEA 2015.

<sup>10</sup> These models include, in general, the level of the vegetation or buildings. They were obtained through photogrammetric algorithms applied to sets of images acquired from low altitude flown UAVs.

Jigodin I is the more intense researched site of the group, fact that determined its interpretation as the seat of a local chieftain to which must had belonged also the riches buried in the vicinity like a coins hoard or the silver vessels hoard from Săncrăieni<sup>11</sup>, although the relation of this alleged seat with the other neighbouring fortified sites remained unaddressed. In fact, the topographic ensemble from *Câmpu Morii* is less impressive than Jigodin III (fig. 3, pl. IV) and the enclosed surface smaller, measuring inside 0.33 ha in comparison to 0.43 ha<sup>12</sup>. The *Câmpu Morii* hill is elevated with 54 m above Olt river, having three mild slopes, one of them being a 200 m long access saddle. Jigodin III raises with 67 m above the Olt, being the most preminent relief feature of the right river bank, clearly distinguished in the surrounding landscape. The differences in the fortification size are also striking. The wall of Jigodin III is still standing in parts on 8 m level difference.



Fig. 3. Jigodin III view from south-east.

In the same time, the stratigraphic sequence of Jigodin III appears to be longer and more stable. Typical ceramic finds for the 2<sup>nd</sup> c. BC<sup>13</sup>, respectively handmade polished vessels, black or dark brown in colour, were found in Jigodin III in a distinct layer, positioned beneath the 1<sup>st</sup> c. BC – 1<sup>st</sup> c. AD dated deposit, layer to which at least a hut could be assigned and a first phase of the fortification, respectively a wooden palisade. Instead, at Jigodin I some early materials were found just scattered on slopes, suggesting that a significant levelling of the plateau and of its earlier deposits took place during the 1<sup>st</sup> c. BC, on the occasion of building the fortification wall. A single archaeological level was observed on the plateau of Jigodin I belonging to the 1<sup>st</sup> c. BC – 1<sup>st</sup> c. AD<sup>14</sup> period. The pre-eminence of Jigodin III site appears to have been preserved in time, as both the consistent stratigraphy and chronology of artefacts suggest a lengthy occupation or a reoccupation. Habitation structures dated with Roman coins clearly pinpoint the site in the 3<sup>rd</sup> c. AD, in the context in which the Roman border was located at 30 km towards west, across the mountains. The importance of Jigodin III site could be explained through its link with an important ford over the Olt, between swamps, and with an east-west road that passed exactly in front of the site, afterwards climbing the hills towards Baraolt Depression.

<sup>11</sup> CRIȘAN 2000, 49, 142–3; CRIȘAN 2004, 115.

<sup>12</sup> It is believed that a part of the site fell towards Olt, but there is no analysis in this direction for the moment.

<sup>13</sup> CRIȘAN 2000, 49–50.

<sup>14</sup> CRIȘAN/GHEORGHIU/POPESCU 2004.

### Reconsidering site size

The analysis of the detailed digital elevation surface models (DSM) resulted from the latest aerial surveys suggests that both sites had adjacent fittings to the enclosures. Thus, in Jigodin I the stone enclosure, oval in shape, measuring approximately 0.33 ha in the interior was augmented by secondary works that extended towards north, east and southeast (Pl. VI). Terrain ridges and small elongated ditches could be identified on the DSM<sup>15</sup> closing in square angle towards east. These could suggest that the space was fitted on the mild slopes for various activities. The most obvious is a semilunar terrace encircling towards north and northeast the plateau, measuring 0.23 ha in surface. Its levelled topography can be observed on both profile and DSM. The discovery of several workshops for iron working, outside the enclosure, on the access saddle, gives even more ground to consider that the wall was not necessarily linked with a military function, but delimited a certain quarter of the site, the site itself being, in fact, larger, with spaces occupied on the exterior around the stone enclosure.

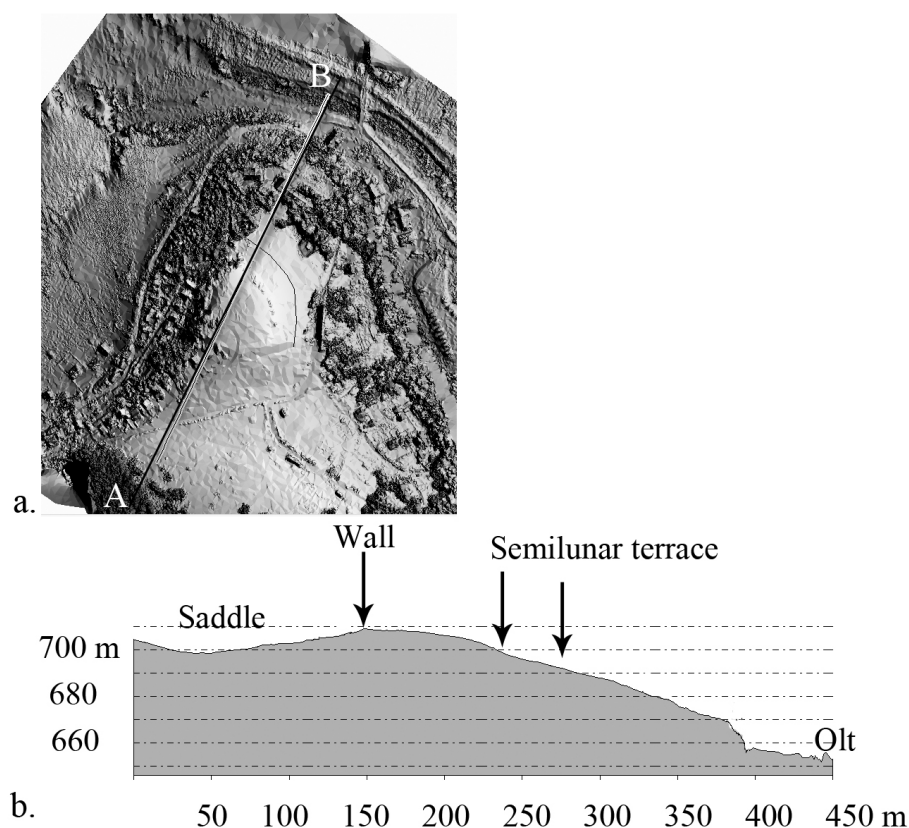


Fig. 4. Jigodin I: a – position of altimetric profile on DEM-UAV; b – A–B profile.

We would also want to note the discovery, not enough highlighted in previous publications, of a large building, located on the central part of the plateau, rectangular in shape, 7.4 m long, with an apse marked by post pits<sup>16</sup>. This type of plan and the central location of the find are totally relevant for the social changes that influenced the architectural expression in

<sup>15</sup> Some ditches were marked also on the older site plan (Pl. VI c) but their shape appears now as different. In addition, the DSM shows not just ditches, but also ridges and flat areas (terrace).

<sup>16</sup> CRIȘAN 2000, 47.

pre-Roman Dacia<sup>17</sup>. This building type was encountered in other Dacian residential centres from Carpathians, like Racoș and Piatra Roșie, or in extra Carpathian areas at Cârломănești and Popești<sup>18</sup>. They were interpreted as either princely dwellings/palaces<sup>19</sup> or temples<sup>20</sup>.

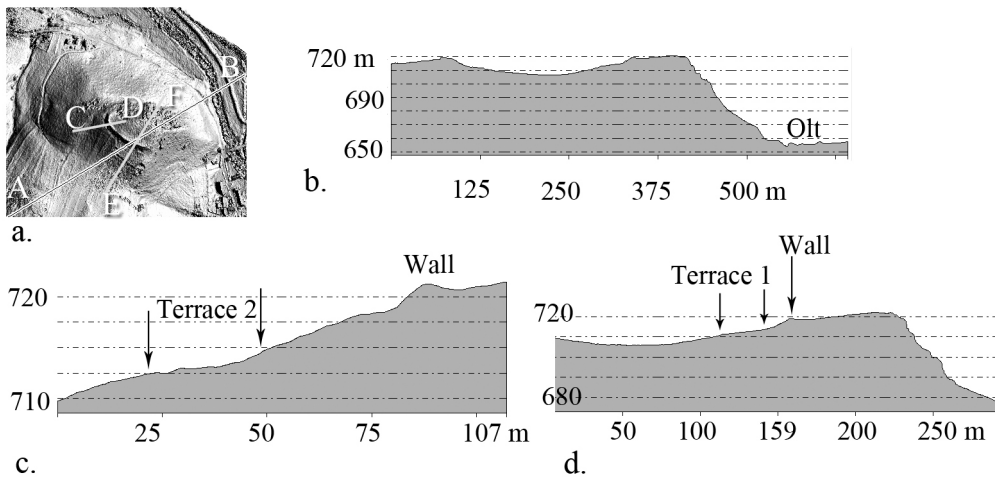


Fig. 5. Jigodin III: a – position of altimetric profiles on DEM-UAV A–B (b), C–D (c), E–F (d).

The digital surface model of Jigodin III is the most suggestive as the site was surveyed immediately after a big fire that cleaned the smaller vegetation (Pl. V). If the outline and size of the wall delineated without doubt, rather unexpected to observe were, instead, the neighbouring structures terraces-like, located towards south and east to the wall, marked in the field by a series of ridges and levellings. Terrace no. 1 has a rectangular shape and measures 0.19 ha interior surface and terrace 2, less clear in shape, measures at least 0.09 ha in surface (fig. 5). A glimpse of terrace 1 appears represented on the old plan by Ferenczi (Pl. V b). The general topography of the Hill *Dealul Cetății Mici* is very interesting, as it combines the features of a promontory with a connection saddle, with those of a hill with steep slopes on all sides. The complexity of the site's overall layout and size appear as greater than previously thought, similarly to Jigodin I case. More attention should be given in the future to extending the scale of the investigations – either remote sensing and geophysics or excavations, to the neighbouring areas of the enclosures in order to gain more perspective over the real sizes of sites.

### Military networks and territorial complexity

The third fortified site of the group is more remotely located, not so visible as Jigodin I and III (fig. 2, Pl. VIII b-c). If these two were rather well integrated in the territory, having enough space to develop surrounding open habitation, the site from Jigodin II *Dealul Cetății* is located on top of a small hill with steep slopes on all sides, connected only by a very small saddle to the access road. This hill is surrounded on three sides by higher relief, like in a natural theatre opened towards the Olt, these higher ridges being probably used in the past as roads and observation points. The stone wall was built on the small plateau margin, adding its height to that of the natural slope. An inner ditch encircles on the interior the wall, leaving inside only a very small

<sup>17</sup> The lack of structures or spaces designed for public use in the area of east Transylvania in general was used as an important argument to consider the entire area a very local and rural world (FLOREA 2011, 100. Recently a rectangular edifice with rows of posts was identified in Cetatea Zânelor at Covasna (CRIȘAN ET ALII 2015).

<sup>18</sup> Catalogue of discoveries with bibliography in BODO 2000.

<sup>19</sup> GLODARIU 1983, 25.

<sup>20</sup> ȘÎRBU 2006, 33–34.

rocky plateau, measuring 70 × 25 m (Pl. VII d-e). We do not have information regarding interior structures or stratigraphy, although a certain discussion regarding the assignment of the wall built with partially dressed stones (Pl VII b-c) to the early medieval period was done. Nevertheless, all the materials published by Ferenczi<sup>21</sup> were late Iron Age. All the pottery observed by the authors during their survey, in April 2015, was also late Iron Age (Dacian type). The pottery fragments in large quantities were observed between the roots of a fallen pine which had stood initially at the base of the fortification. In the case of Jigodin II the position, small size and lack of adjacent spaces for civilian activities seem to confirm that the site had predominantly a military function, maybe that of guarding the residential centres from Jigodin I and III. Unfortunately, the aerial survey of Jigodin II could not be used for obtaining the site plan because of the thick pines canopy (Pl. VIII a). Still, the digital elevation model was helpful in establishing the relative elevation differences between the upper plateau and the streams located in the lower parts towards north. Here, at 100 m lower, than the upper plateau, on a small terrace, Dacian ceramic fragments were found, as well as a large block of dressed stone<sup>22</sup>.

The recent discovery of Jigodin IV site – a small rocky pick located at 700 m north from Jigodin II, proved to be very significant for the understanding of the Jigodin Dacian period archaeological ensemble, as it helped explaining how authority was implemented in the territories – through networks of interconnected military sites, roads and observation points, not necessarily large scale conceived, but very localized and complex. Before imagining strategic systems of fortresses which would have had visibility on 25 km range, we should look first in the immediate surroundings of fortified sites and try to explain their role in the complexity of their territories. Jigodin IV was positioned in the perfect place which ensured visibility towards the blind zone of Jigodin II (fig. 2). Despite a very good visibility control over the depression, Jigodin II could not guard its immediate surroundings, like the northern, eastern and western slopes, nor the ridge road that ascended from Olt towards *Harom*. Jigodin IV is located lower than Jigodin II, being orientated exactly towards the larger fortress' vulnerable sectors. Its small dimensions – a plateau of 20 m in diameter, couldn't have allowed its survival outside a system of supplies (food, men and weapons) organized by a stronger centre. Fortified with a ditch and rampart (Pl. IX b-d), it was also fitted with a very small observation terrace orientated to the hot spot – the access road towards Jigodin II.

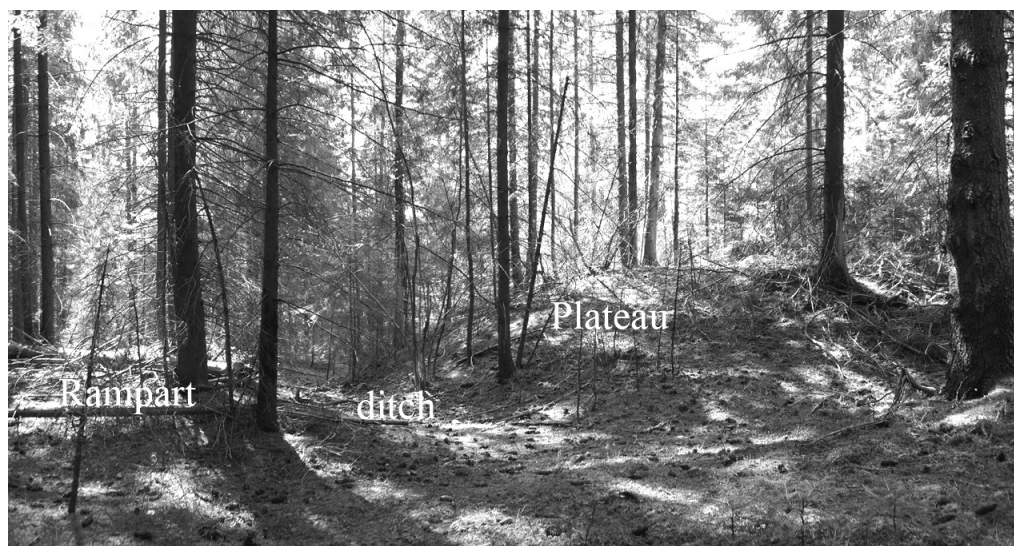


Fig. 6. Jigodin IV – view of the ditch and plateau seen from the south.

<sup>21</sup> FERENCZI 1938, 249.

<sup>22</sup> The situation is described and illustrated in ȘTEFAN/ȘTEFAN/BUZEA 2015, fig. 8–9.

The observation point was located along a ridge route that encircled the larger fortress of Jigodin II, being, as the viewsheds show (Pl. IX a), only one element of the supporting network, as others, undiscovered yet were still necessary to cover completely all the areas uncontrollable by sight from the walls of Jigodin II. The system based on secondary observation points, useful to disperse also troops in the territory, is similar in concept to what has been documented in the Orăștie Mountains at Costești-*Blidaru*<sup>23</sup>. The ceramic fragments found in Jigodin IV on the surface of site and in the soil excavated by some looters were all of Dacian type, belonging largely to the 1<sup>st</sup> c BC – 1<sup>st</sup> c. AD period.

### Habitation patterns in Ciuc Depression

We mapped, following the descriptive location data published in main archaeological catalogues<sup>24</sup> and comparison with available cartographic materials, a total of 31 sites. From these only very few were actually excavated<sup>25</sup>, the majority being merely indications of discovered artefacts. Clues regarding their surfaces are also scarce<sup>26</sup>, while the location of some, until further field studies, remains for the moment only hypothetical. Nevertheless, even if accepting certain geographic errors, we can still have a revealing understanding of their spatial configuration, if we choose to observe them at the scale of the entire Ciuc Depression (Pl. 1). Thus, the sites which are considered late Iron Age open settlements are mainly located in array, one after another, on the higher terrace of river Olt, the same habitat which is still nowadays the most crowded. The discoveries were made, in fact, in the vicinity of modern villages. This overlapping habitation, valid for other periods as well, as the Dacian period artefacts were often found in association with others, belonging to older or newer ages, together with the state of limited excavations, make it very hard to distinguish between large scale, spread type of habitation and smaller but more distinct agglomerations. There were cases when in the area of the same village three or four points with discoveries were mentioned, like in Sâncrăieni, Cetățuia or Tomești.

The spatial configuration of sites reveals the organisation of two main clusters. A northern one, outlined like a triangle by the modern villages of Sândominic, Racu and Nadejdea, with discoveries aligned along the Upper Olt and its tributary Racu, and the other one in the south, between Jigodin, along the Olt, till Vrabia, with an extension along the eastern lower piedmont of the Depression, between Ciucsângeorgiu and Cozmeni (Pl. I). The two groups are practically separated by a 12 kilometres long gap, bordered on each side by a belt of fortified dominant positions. Thus, the fortified sites from Racu (I, II) and Mihăileni (unknown location) establish a southern border for the northern group, while the fortified sites from Jigodin (I, II, III) and Lelicieni stand as the northern border of the southern group. Only the discoveries from Delnița and Ciuboțeni lay in between, again on the eastern piedmont of the Depression. From what is available to us at this moment, we notice the preference of placing open settlements along the Olt and at the base of the eastern piedmont of Ciuc Depression. The eastern side of the Olt river is relatively wider, with a gentler relief, while the western side is more abrupt and fragmented by smaller streams, descending quickly from the high Harghita ranges towards the river (fig. 1b).

### Larger forests and swampy lowlands

As the first Josephine map depicts the reality from the middle and close of the 18<sup>th</sup> century, the limit of the forest was in the past located nearer the Olt (Pl. II a). In comparison to nowadays,

<sup>23</sup> PESCARU ET ALII 2014.

<sup>24</sup> CRIȘAN 2000, RAJH.

<sup>25</sup> Sâncrăieni *Fabrica de cărămidă* (VULPE ET ALII 1955), Sântimbru *Pomii Verzi* (CRIȘAN 1996); probably rescue excavations were made in Delnița (CRIȘAN 2000, 39).

<sup>26</sup> The settlements around Sâncrăieni and Sântimbru measure about 1–2 ha and that from Sânsimion 3 ha.

the forest on the west slopes has been cut down since, along a corridor of 2 to 7 km wide. Even if changes in the forest coverage can be observed on the eastern side of the Depression, too, these are smaller in relation with the western side. We could suppose that forests were more likely to had covered in Antiquity the western, steeper hills, descending rapidly from the mountains, while the eastern terraces were used for the little agriculture that people may had been able to do.

Older maps show, also, that the river Olt valley was swampy until the 1960s – an era of massive hydrographical regularizations (Pl. II b-c). A large swamp spread right north of Jigodin-Leliceni gorge until the hills located nearby Siculeni, for almost 10 km, partly covering the gap between the two clusters of Dacian settlements previously mentioned. Another swamp was located towards south to the gorge, between Sâncrăieni and Tuşnad, for another 13 km. Even nowadays, in the vicinity of Sâncrăieni, lies the natural reserve of Sâncrăieni Borsároş, a turf moor measuring 1 ha in surface. The abundant rainfall in the area, corroborated with the regime of low temperature and dense underground water network have been causing the formation and persistence of swamps. Between these wetlands, an important ford over Olt was located exactly in front of Jigodin III fortified site; thus, the main east-west road linking Ciuc Depression with Baraolt area was climbing mildly on the contour line towards *Harom* through Jigodin III. The east-west passages seemed to be, in fact, the most important in Ciuc Depression, being guarded by fortified sites. These routes corresponded with natural corridors where the transport was easier to control in all directions, both along the Olt and on the east-west lines, like the oblique hilly ridges between Racu and Livezi or the Jigodin–Leliceni gorge where the Olt valley is the narrowest (Pl. II, VIII d). The fortress of Cozmeni suggests, in a similar fashion, the existence of a passage towards east into Caşinul Nou micro-Depression. Inside the southern cluster we would like to emphasize the special topographic position of the group of discoveries made around the villages Cetăţuia and Sînsimion – a high, but very fragmented sector of the river Olt terrace, surrounded from all sides by wetlands and also located at the confluence between Olt and the largest stream in this part of the depression, descending from east, the Fisag. In addition, the small, but dominant position of the Church Hill in the Cetăţuia village recommends the site for future investigations as suited to be occupied by a more important settlement, perhaps fortified. Iron furnaces were found here<sup>27</sup>.

### Harsh environment but rich in minerals?

The northern cluster of settlements encircles two parallel hills, which could have been used as east-west roads. One of them, the northern one, is presently called the *Hill of the Iron Mine* and holds significant deposits of limonite. There are no traces of ancient exploitation, however, in almost all the sites in this northern cluster, fragments of iron slag were found. Iron working was, in fact, a common activity in the entire Ciuc Depression<sup>28</sup>. An entire quarter of iron working workshops was found right outside the fortification of Jigodin I, on the access saddle<sup>29</sup>, while iron furnaces were documented in Sînsimion and Cetăţuia. In the northern part of Ciuc Depression there are also the copper deposits from Bălan and Mădăraş. More recent geological studies consider that there is a high probability<sup>30</sup> to find stanium north of Bălan and Sândominic, a crucial component in the ancient alloys of bronzes (Pl. III). Overall, it seems less obvious that the area would be really so rich in ores and minerals, as previous studies repeatedly state<sup>31</sup>. Eastern Transylvania is a collection of different geographical units, the natural features of

<sup>27</sup> A catalogue with finds of iron furnaces and slag in the area in SAVU 2014 with all the bibliography.

<sup>28</sup> SAVU 2014.

<sup>29</sup> CRIŞAN 2000, 47, CRIŞAN/GHEORGHIU/POPESCU 2004.

<sup>30</sup> <http://geoportal.onegeology-europe.org>.

<sup>31</sup> CRIŞAN 2000; GLODARIU/IAROSLAVSCHI 1979.

which deeply influence the organisation of habitation or establishment of roads. Cultural and political neighbouring structures bring their own add to the creation of particular systems of valued resources. So even if the *eastern Dacians*, or the concept of *eastern Transylvanian Dacian fortresses* appear to be commonly used, the realities behind these terms were more diverse and the reasons for development – more locally differentiated. A distinct geographic unit are the depressions. In what concerns the mineral resources, the depressions exhibit a distinct situation. They do not have salt resources. Salt is to be found on the Transylvanian or Moldavian piedmont, across the mountains. The salty spring in the environs of Olteni, Covasna, is an exception; and it is not exactly a consistent salt resource, just a mineral water with a higher content of sodium. Except for the deposits already mentioned, of copper and limonite from Bălan area, in northern Ciuc, the main iron sources are to be found also outside these areas, at Lueta and Vlăhița, or lesser ones at Filia and Doboșeni, in northern Baraolt area, but again, across the mountains towards west. Until further evidence, we appreciate that only the fortified settlement from Merești<sup>32</sup> and only in part Biborțeni<sup>33</sup> could have benefitted directly from their position in relation to mineral resources, but these were not located in the depressions; else, for the others, especially those located inside the Ciuc Depressions, circulation of materials and goods must have been essential for their survival as both elementary supplies and subject of collecting customs. This is why the roads and their control appear as the main valued resources of these regions.

### **Polycentric development, territory and regional identity**

In the Ciuc Depressions, the fortified sites do not act as obvious central places, around which open settlements tend to gather or develop. It seems that they are mainly relevant for the control of the most strategic roads (which were the east-west ones) and stand at the borders of regional clusters of settlements. However, it is mainly the limited state of the research that prohibits us from having a more nuanced view of these fortified sites' roles, features and numbers. The group of fortified sites from Jigodin, where researches were more intense, even if not sufficient, suggests that the past realities were complex. All these four sites located in close vicinity and for a period contemporaneous had different features and appear to have played distinct roles: Jigodin III and I exhibit a more residential and production related character, with some indications for implementation of spatial functional division and building of public edifices, while Jigodin II and IV offer many arguments to assign them to the military milieu. It is acceptable to consider all four of them as belonging to a unitary system with hierarchized elements especially because the complementarity and subordination between Jigodin IV and II stand as proof for the existence of an authority controlling the local road network (Pl. IX). It is also noteworthy that even some differences in size, topography and territorial complexity could be identified between Jigodin I and III, their adjoined existence demonstrates that the local community in this area had a multifocal development around (at least) two occupation poles and that the territory was the essential entity for measuring of social change, not just a fortified hilltop. The sites were neither competing entities nor different chronological phases, but an overlay of population agglomerations. It remains an objective for any future investigations to focus more on the terraces located right between the two fortified locations in order to better understand the true size of human agglomerations.

The reduced size of the wall-enclosed areas of late Iron Age fortified sites in Eastern Transylvania has been constantly seen<sup>34</sup> as a major argument against the establishment of connections with the central-western European *oppida* or even with the extra-Carpathian *davae*

<sup>32</sup> CRIȘAN 2000, 54–56.

<sup>33</sup> SZÉKELY 1955.

<sup>34</sup> FLOREA 2011, 99–102.

developments. However, concepts and definitions created for other cultural and geographic spaces should be applied elsewhere with more flexibility. If the focus was placed on function rather than on form, the analysis would be more useful. Identification of change and complex organizational trends should be done at the scale of territories, too, not just in limited fortified areas<sup>35</sup>. In the area of Jigodin we have evidences for complex territorial organisation with the east-west roads acting as essential structuring elements, and functions distributed between sites: some are military, others workshop quarters, others residential, but all gathered in a consistent area. The discovery of entire amphorae in Sântimbru<sup>36</sup> proves that commercial connection with the Pontic area through the mountains was active and engaged a larger market accessible to people living in the open settlements, as well.

A recent interpretation of the 1<sup>st</sup> c. BC Sâncrăieni hoard, discovered at 1 km south of Jigodin I site, highlights the regional and collective character of the offering<sup>37</sup>, suggesting the participating of a larger number of important individuals in the ritual of commemorating or interring a special person of the community by making gifts of drinking vessels. The large number of vessels in the deposit and their heterogenous aspect was thus taken as proof for the variety of their donors. In this light, the find, which is unique in entire Transylvania<sup>38</sup>, can be seen not just as a marker of status and wealth of a local chieftain, but as a sign for a regional solidarity based on common religious beliefs and ceremonial framework – important elements in the construction of group identities and territorial integrities during the late Iron Age elsewhere in Europe<sup>39</sup>, too.

**MAGDALENA ȘTEFAN**

Institute of Archaeology and History of Art Cluj-Napoca  
m\_magdalena.stefan@yahoo.com

**DAN ȘTEFAN**

Institute of Archaeology Vasile Pârvan, Bucharest  
danstefan00@gmail.com

**DAN BUZEA**

National Museum of the Eastern Carpathians  
buzealuci@yahoo.com

**ABBREVIATIONS**

Acta Musei Napocensis (Cluj-Napoca) = AMN

Anuarul Comisiunii Monumentelor Istorice Secția pentru Transilvania (Cluj-Napoca) = ACMIT

Cronica Cercetărilor Arheologice din România (Ministerul Culturii) = CCA

Istros (Brăila) = Istros

Journal of Ancient History and Archaeology (Cluj-Napoca) = JAHA

Oxford Journal of Archaeology = OJA

Repertoriu Arheologic al Județului Harghita, V. Cavruc (ed), (Sfântul Gheorghe, 2000) = RAJH

Studii și Cercetări de Istorie Veche (București) = SCIV

<sup>35</sup> MOORE 2012; POUX 2014.

<sup>36</sup> CRIȘAN 1996, 373, fig. 10.1–2.

<sup>37</sup> EGRI, RUSTOIU 2014.

<sup>38</sup> The hoard was accidentally found during controlled explosion in a quarry in 1953. It consisted of 15 drinking cups, 3 coins, two bracelets and a brooch, all weighting 3.65 kg of silver.

<sup>39</sup> FERNÁNDEZ-GÖTZ 2012.

**BIBLIOGRAPHY**

BODO 2000

C. BODO, Construcțiile cu absidă în Dacia preromană. Istros X, 2000, 251–275.

CRIȘAN 1996

V. CRIȘAN, Așezarea dacică de la Sântimbru. AMN 33, I, 1996, 361–374.

CRIȘAN 2000

V. CRIȘAN, Dacii din estul Transilvaniei (Sfântul Gheorghe 2000).

CRIȘAN/GHEORGHIU/POPESCU 2000

V. CRIȘAN/G. GHEORGHIU/M.C. POPESCU, Cercetările arheologice de la Miercurea Ciuc – Jigodin I, campaniile 1998, 2000. Istros XI, 2004, 111–145.

CRIȘAN/SÎRBU/PUPEZĂ/JOZSEF/MĂRGINEANU-CÂRSTOI/ APOSTOL 2015

V. CRIȘAN/V. SÎRBU/P. PUPEZĂ/N. JOZSEF/M. MĂRGINEANU-CÂRSTOI/  
V. APOSTOL, Covasna, jud. Covasna Punct: Cetatea Zânelor. CCA 2014, 2015, 57–58.

DAICOVICIU 1954

C. DAICOVICIU, Cetatea dacică de la Piatra Roșie. Monografie Arheologică (București 1954).

EGRI/RUSTOIU 2014

M. EGRI/A. RUSTOIU, Sacred conviviality in the Lower Danube region. The case of the Sâncrăieni hoard. In *Banquets of Gods, Banquets of Men. Conviviality in the Ancient World*, Studia Universitatis “Babeș-Bolyai”. Historia 59, 1, 2014, 153–188.

FERENCZI 1932–1938

AL. FERENCZI, Cetăți antice în județul Ciuc. ACMIT 1932–1938, 237–352.

FERNÁNDEZ-GÖTZ 2012

M. FERNÁNDEZ-GÖTZ, Die Rolle der Heiligtümer bei der Konstruktion kollektiver Identitäten: Das Beispiel der treverischen Oppida. *Archäologisches Korrespondenzblatt* 42, 4, 2012, 509–524.

FLOREA 2011

G. FLOREA, Dava et Oppidum. Débuts de la genèse urbaine en Europeau deuxième âge du Fer (Cluj-Napoca 2011).

GLODARIU 1983

I. GLODARIU, Arhitectura dacilor (Cluj-Napoca 1983).

GLODARIU/IAROSLAVSCHI 1979

I. GLODARIU/ E. IAROSLAVSCHI, Civilizația fierului la daci (Cluj-Napoca 1979).

MACREA ET ALII 1951

M. MACREA/L. BUZDUGAN/G. FERENCZI/K. HOREDȚ/I. POPESCU/I. I. RUSSU,  
Z. SZÉKELY/N. VASIU/I. WINKLER, Despre rezultatele cercetărilor întreprinse de șantierul arheologic Sft. Gheorghe-Brețcu, 1950. SCIV II, 1, 1951, 115–122.

MOORE 2012

T. MOORE, Beyond the oppida: polyfocal complexes and Late Iron Age societies in southern Britain. *OJA* 31, 4, 2012, 391–417.

ORBÁN 1868–1871

B. ORBÁN, A Székelyföld leirasa (Buda 1868–1871).

PESCARU/FLOREA/MATEESCU/PUPEZĂ/CRISTESCU/BODO/PESCARU 2014

A. PESCARU/G. FLOREA/R. MATEESCU/P. PUPEZĂ/C. CRISTESCU/C. BODO/  
E. PESCARU, The Dacian Fortress from Costești-Blidaru – Recent archaeological research. The towers from La Vămi, Poiana lui Mihai, Platoul Faeragului (I). *JAHA* 1, 2014, 3–28.

POUX 2014

M. POUX, Enlarging Oppida: Multipolar Town Patterns in Late Iron Age Gaul. In: M. Fernández-Götz, H. Wendling, K. Winger (eds.) *Paths to Complexity: Centralisation and Urbanisation in Iron Age Europe* (Oxford & Philadelphia 2014), 157–167.

ROMAN/PĂL/CSĂBA 1973

P. ROMAN/I. PĂL/H. CSĂBA, Cultura Jigodin o cultură cu ceramică șnurată în estul Transilvaniei. *SCIV* 24, 4, 1973, 559–574.

SAVU 2014

L. SAVU, Relația dintre prezența resurselor solului și subsolului și gradul de dezvoltare al bazinului transilvănean al Oltului (sec. IV î.Hr. – I d.Hr.), *Arheovest* II, In memoriam Gheorghe Lazarovici (Szeged 2014), 677–714.

SZÉKELY 1955

Z. SZÉKELY, Raport despre cercetările executate de Muzeul Regional din Sf. Gheorghe între anii 1945–1953. In *Muzeul Regional Sfintu Gheorghe. Almanah 1878–1954* (Târgu Mureș 1955), 7–47.

SÎRBU 2004

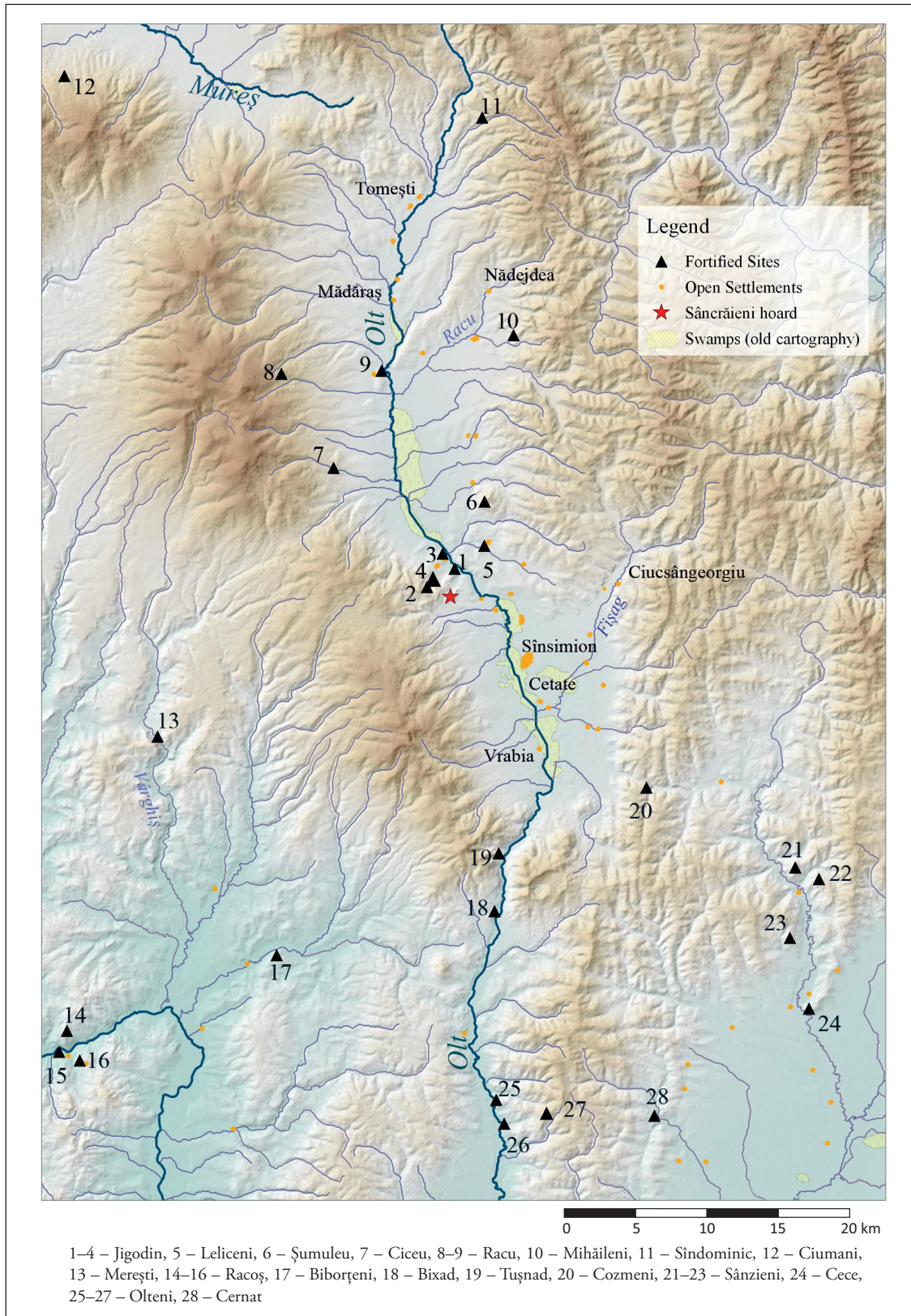
V. SÎRBU, *Oameni și zei în lumea geto-dacilor* (Brașov, 2004).

ȘTEFAN/ȘTEFAN/BUZEA 2015

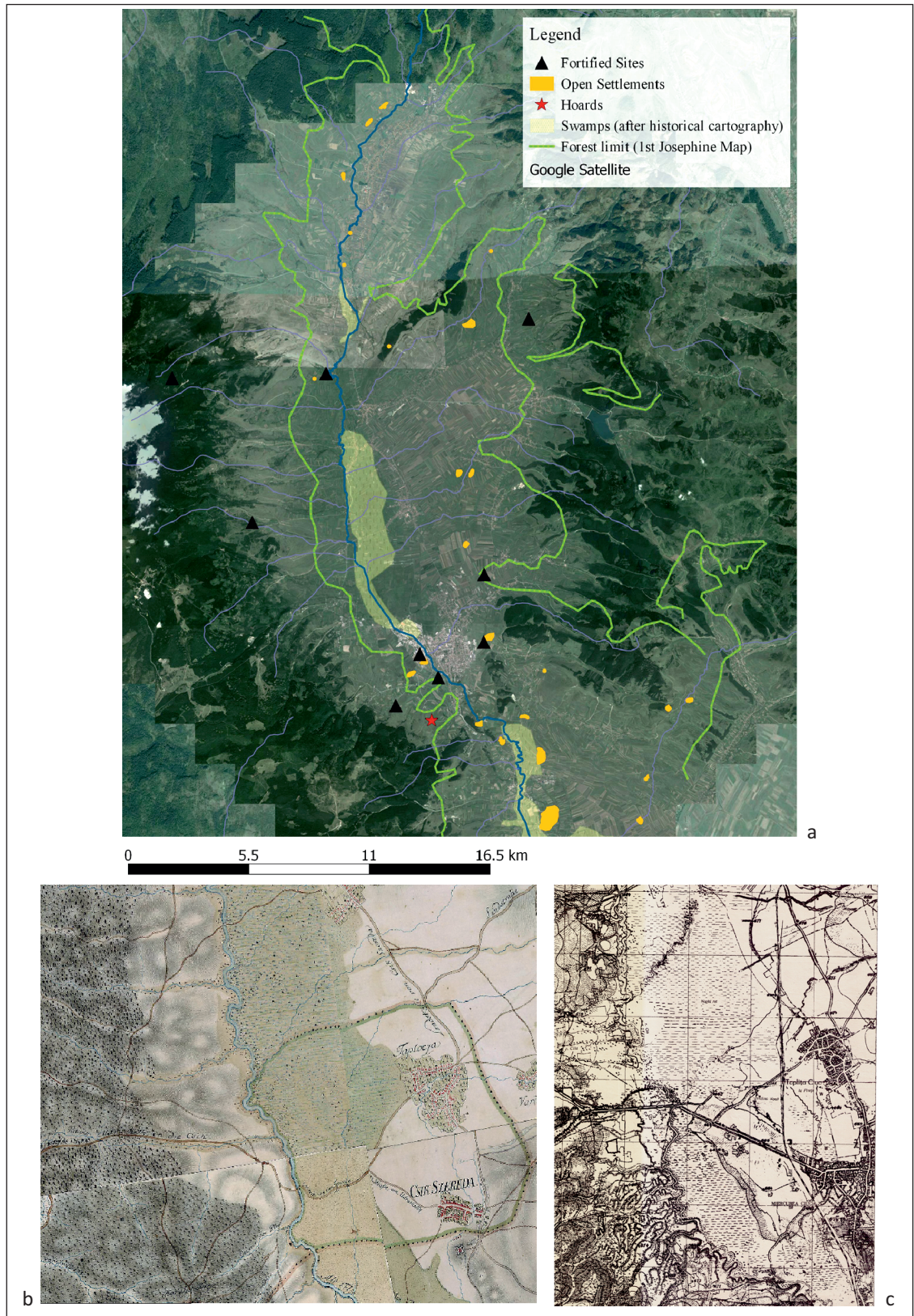
M. ȘTEFAN/D. ȘTEFAN/D. BUZEA, A new fortified site in the archaeological landscape of the 1<sup>st</sup> c. BC – 1<sup>st</sup> c. AD in the area of Jigodin-Harghita in Eastern Transylvania. *Istros* 2015, in print.

VULPE 1955

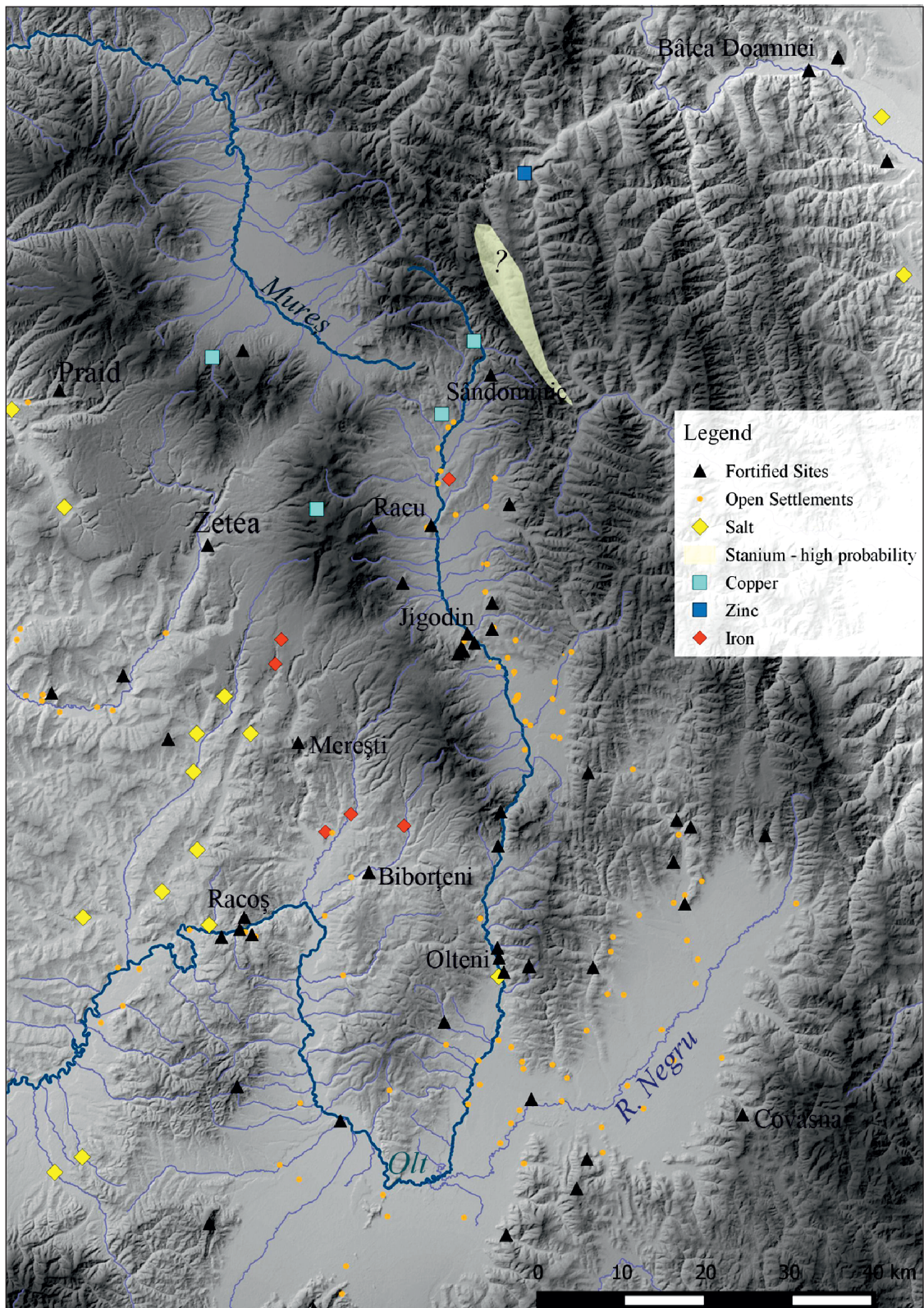
R. VULPE, Săpăturile de salvare de la Sincrăieni (1954), r. Ciuc, Regiunea Autonomă Maghiară. *SCIV* VI, 3–4, 1955, 559–569.



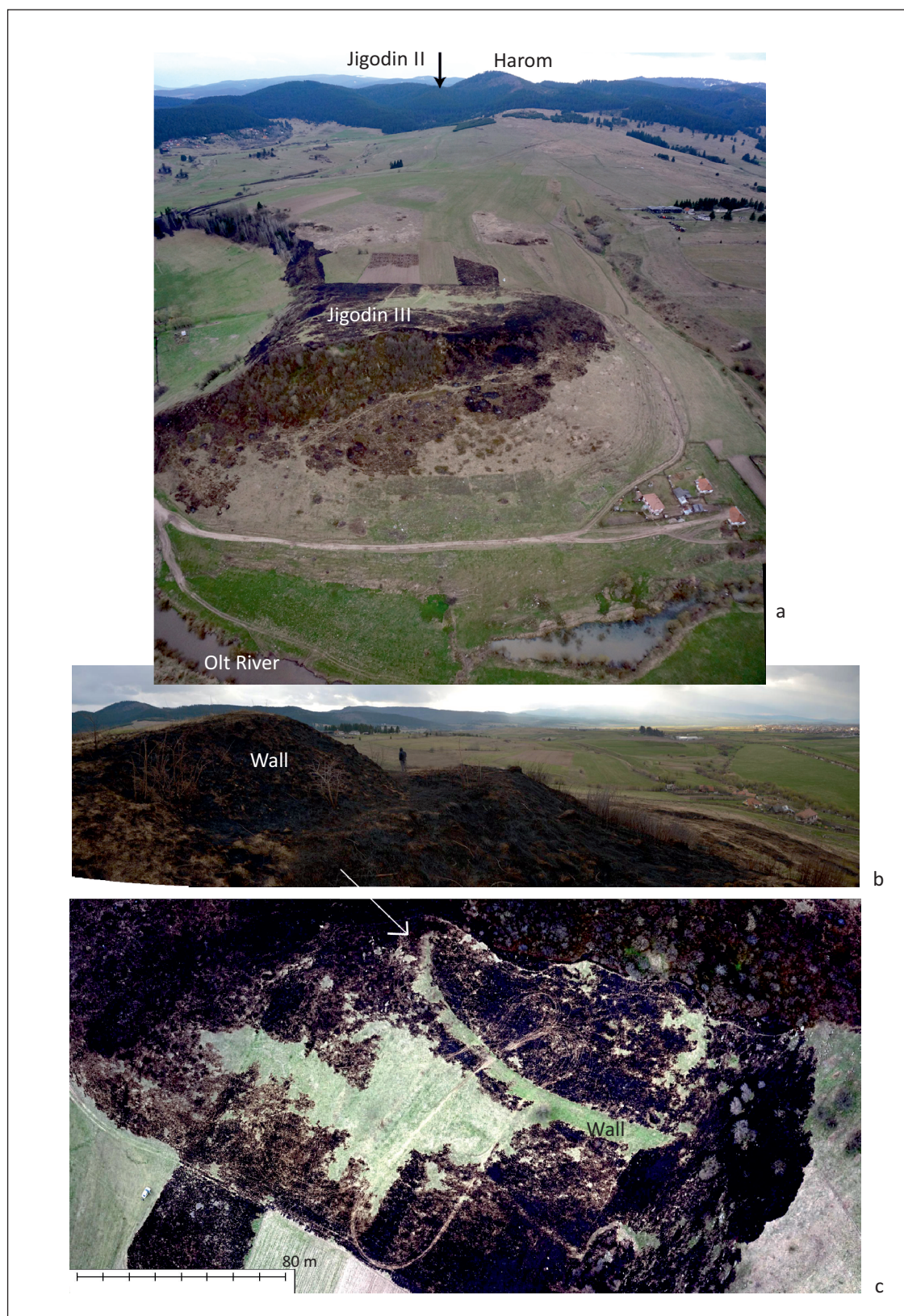
Pl. I. Late 2<sup>nd</sup> Iron Age sites in Ciuc Depressions and surroundings.



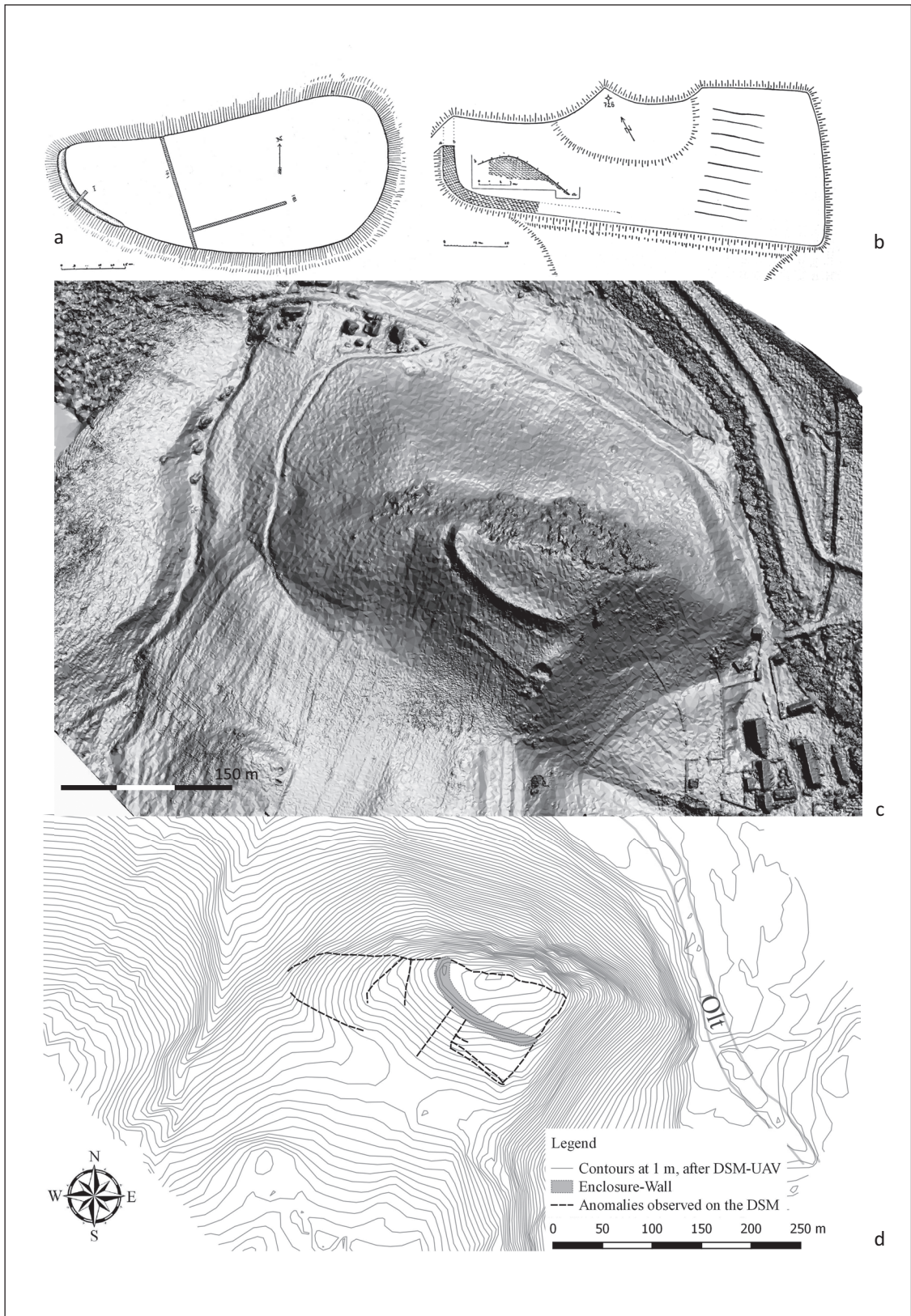
Pl. II. a. Changes in forest covering from 18<sup>th</sup> century; swamps in the area of Miercurea Ciuc along Olt in 1769–1787 (b) and 1958 (c).



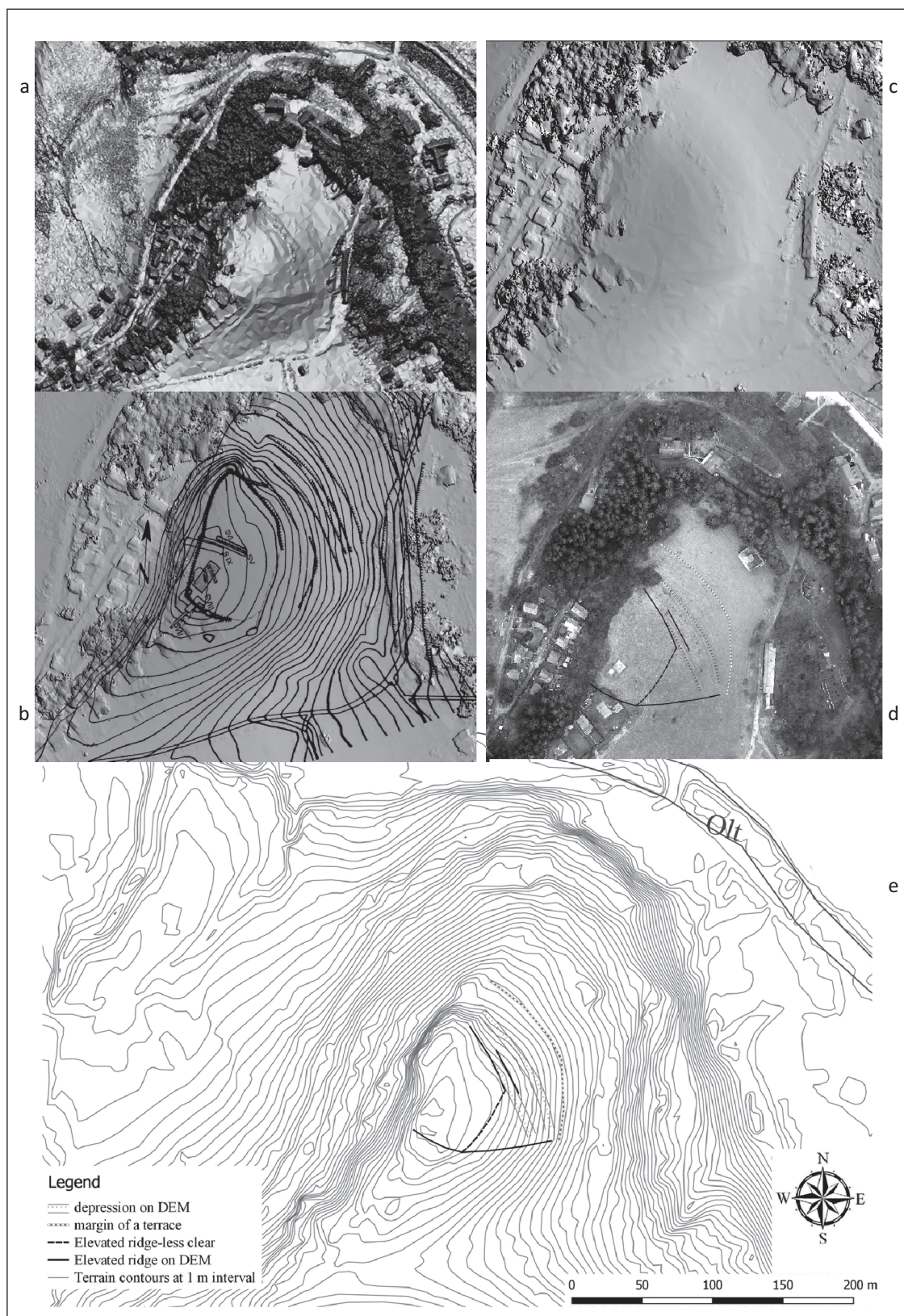
Pl. III. Late 2<sup>nd</sup> Iron Age sites and mineral resources in Ciuc Depressions and surroundings.



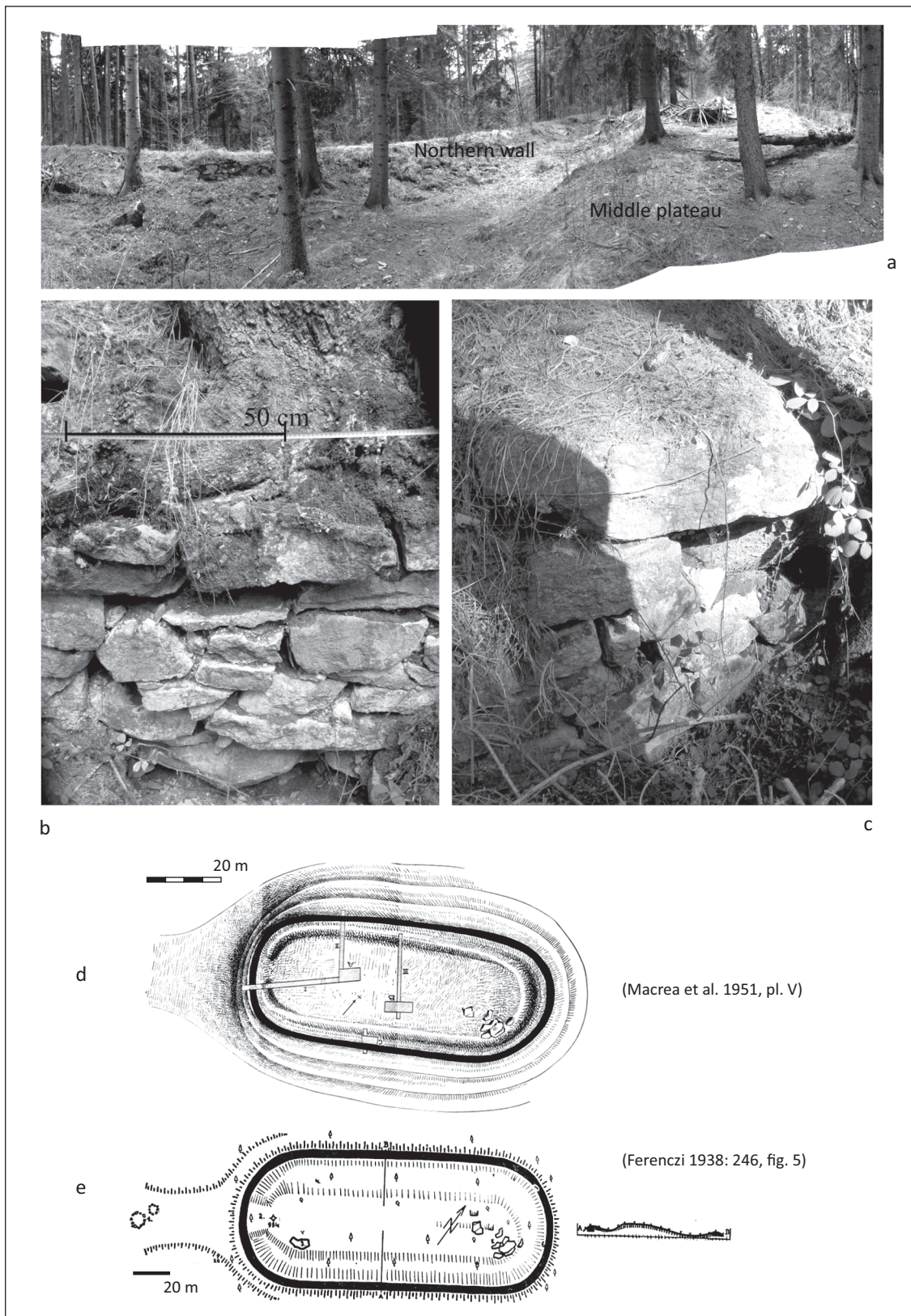
Pl. IV. Jigodin III: a. aerial image from north, b. view of the wall western sector, c. orthophotoplan, north up.



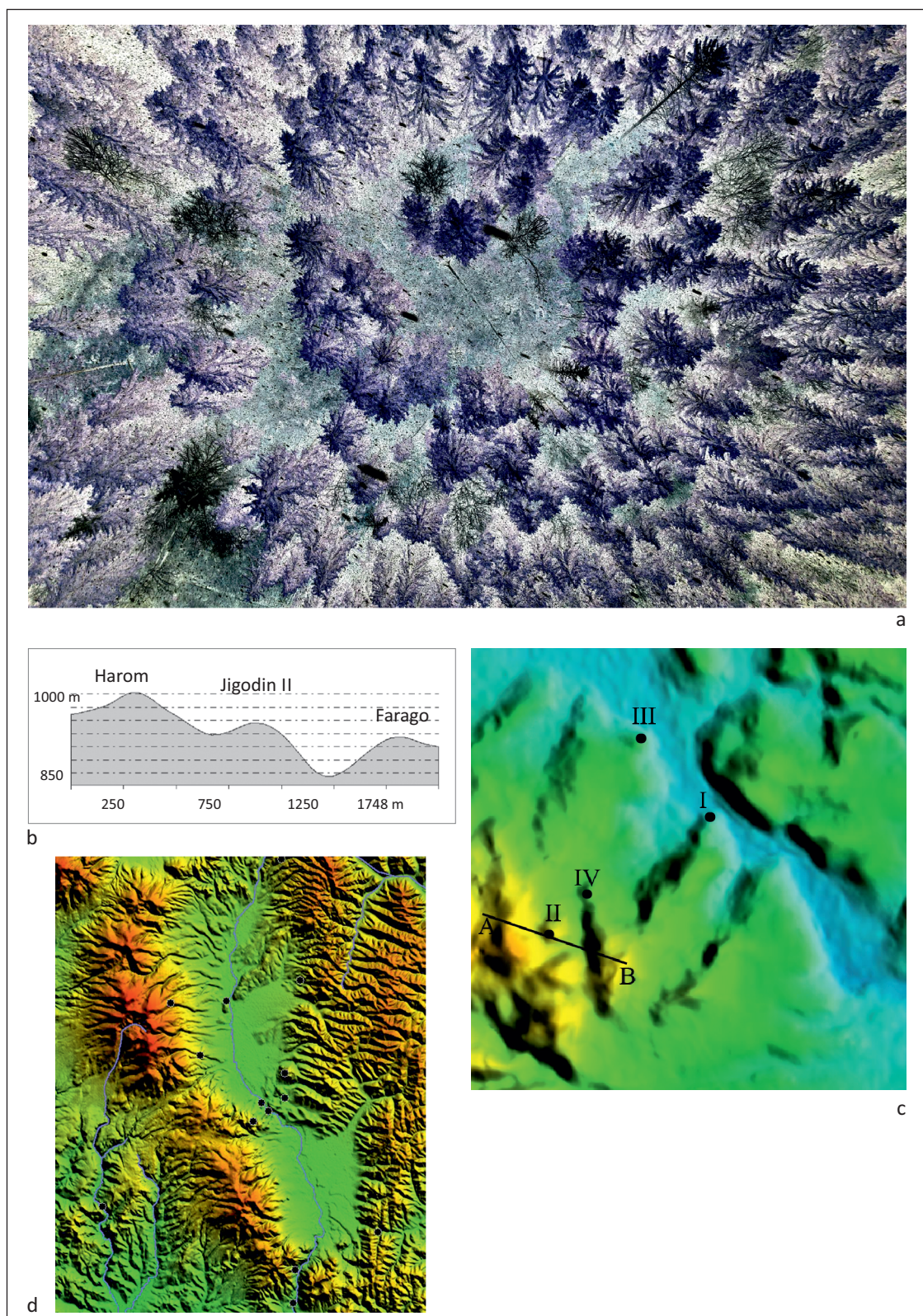
Pl. V. Jigodin III: a. MACREA ET ALII 1951: 309, fig. 12, b. FERENCZI 1938: 262, fig. 29, c. DSM by UAV, d. plan after DSM with anomalies marked.



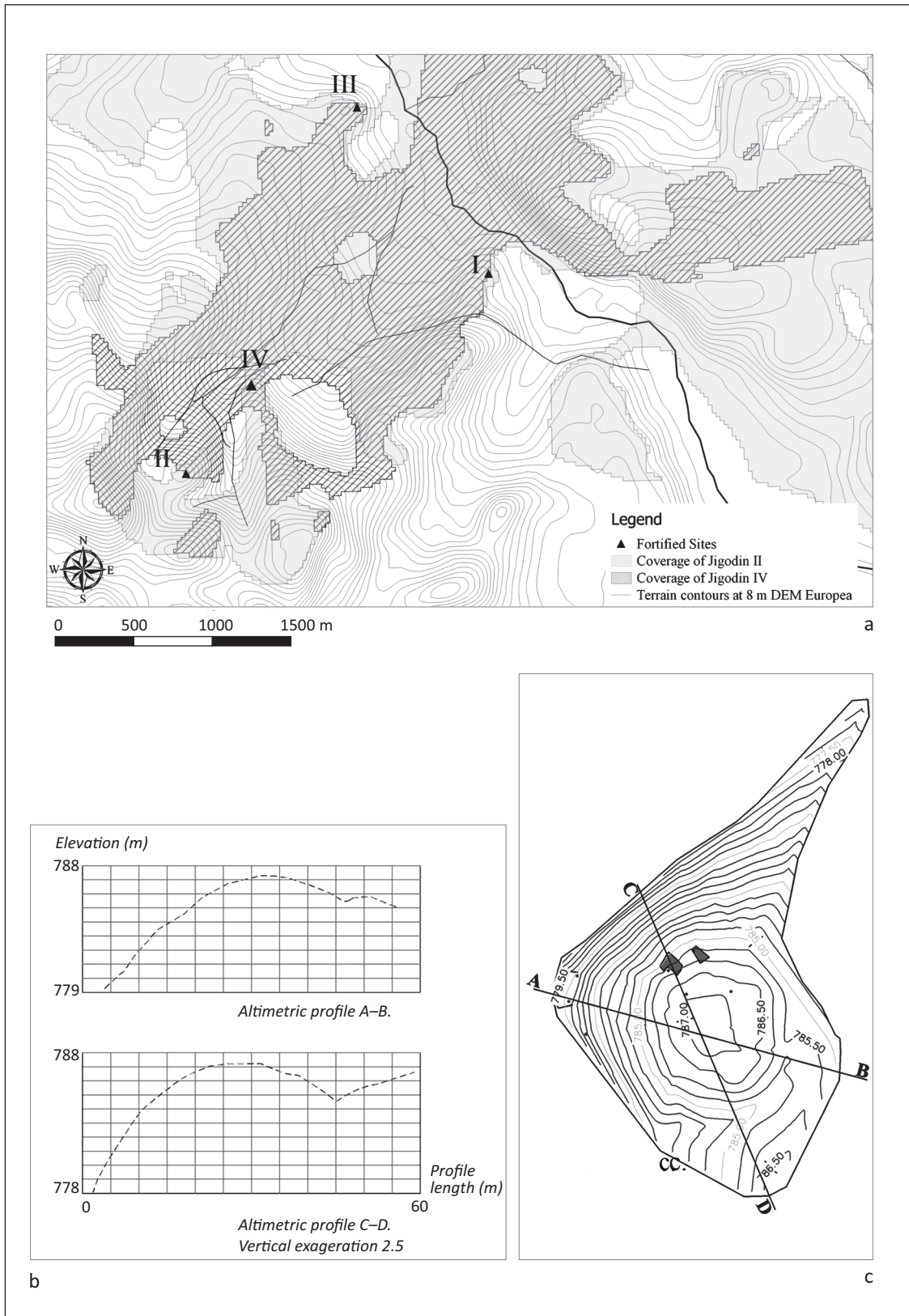
Pl. VI. Jigodin I: a–b. DSM, c. old plan overlay (CRIȘAN ET ALII 2004, pl. I), d. orthophotoplan UAV with anomalies marked, e. plan after DSM UAV.



Pl. VII. Jigodin II: a. panoramic view from the interior towards north;  
b–c. images of the inner face of the stone wall; d–e. older plans of the site.



Pl. VIII. Jigodin II: a. top aerial image of the site in inverted filter; b. altimetric profile AB based on DEM Europe; c. DEM Europe – detail of the area, location of the profile; d. relief of the Ciuc Depression and map of fortified points (black dots).



Pl. IX. a. complementary visibility coverages from Jigodin II (gray fill) and IV (black hatch);  
 b. altimetric profiles and c. plan of Jigodin IV.