

# FEASTS, ANIMAL SACRIFICE, DEPOSITS AND HUMAN BODY MANIPULATION AT THE BEGINNING OF THE FIRST MILLENIUM B.C. IN THE LOWER DANUBE REGION. THE SATU NOU-VALEA LUI VOICU SITE (CONSTANȚA COUNTY, South-East ROMANIA)

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**Abstract:** Data on Early Iron Age at Lower Danube have substantially grown richer following the numerous researches in Babadag culture sites, especially after the '90s. Identified in Dobrudja, eastern Walachia and south-eastern Moldavia, Babadag culture has ascribed so far over 100 settlements that probably functioned from the end of 11<sup>th</sup> c. to the first part of 8<sup>th</sup> c. B.C. One of the problems raised since the beginning of investigations at Babadag was the lack of information regarding the existence of necropolises. From the '90s, but especially in the past decade, data regarding the treatment of the dead was completed with several outstanding finds, results of complicated deposition/decomposition and manipulation of human bodies in settlements. Thus, numerous habitat structures (pits, huts, ditches) containing human bones were found in settlements such as Babadag, Niculițel, Suceveni, Garvăn, Jurilovca – Orgame or Bucu. Though several synthetic studies have already been published concerning these finds that many researchers consider atypical, unusual, bizarre or macabre burials, the recent discoveries continue to bring to light new pieces of information confirming the complexity of this special funerary conduct.

Such is the case of the site at Satu Nou-Valea lui Voicu (Oltina, Constanta County), located on a greatly eroded promontory in the immediate proximity of the Danube. Archaeological research in 1982-2002 documented the existence of an important fortified Getae settlement (3<sup>rd</sup>-1<sup>st</sup> c. BC). Archaeological deposits exceeded 5 m in depth in the northern plateau and encompassed 9 layers. The remains of a possible EIA sanctuary ascribed to Babadag culture (9<sup>th</sup>-early 8<sup>th</sup> c. BC) were partially investigated beneath the Late Iron Age settlement. The complex consisted of several pits and one ditch that followed the western limit of the promontory. Skeletons or parts of human and animal skeletons, along with stones, pottery, etc. were deposited there. Such practices of exposure-decomposition-manipulation or inhumation-exhumation applied to the human body after death are often encountered in EIA in the Carpathians-Balkans areal and beyond.

**Rezumat:** Datele despre perioada timpurie a epocii fierului la Dunărea de Jos s-au înmulțit semnificativ mai ales în urma cercetărilor efectuate după 1990, în situri ale culturii Babadag. Identificată în Dobrogea, estul Munteniei și sud-estul Moldovei, acestei culturi i-au fost atribuite peste 100 de așezări ce pot fi încadrate cronologic între sfârșitul sec. XI și începutul sec. VIII a.Chr. Una dintre problemele ridicate încă de la începutul cercetărilor la Babadag este lipsa informațiilor referitoare la existența necropolelor. După 1990, dar în special în ultimii zece ani, datele referitoare la tratamentul aplicat defuncțiilor au fost completate cu câteva descoperiri rezultate în urma unui proces complicat de expunere-descompunere și manipulare a cadavrelor umane în interiorul așezărilor. Aceste

amenajări (gropi, locuințe, șanțuri) ce conțineau oase umane au fost descoperite din abundență în așezări precum Babadag, Niculițel, Suceveni, Garoăn, Jurilovca–Orgame sau Bucu. Deși au fost deja publicate o serie de studii de sinteză pe această temă, descoperiri recente continuă să aducă noi date privitoare la aceste înmormântări considerate de multe ori ca fiind atipice sau bizare, confirmând complexitatea acestui comportament funerar.

Un astfel de caz este cel de la Satu Nou–Valea lui Voicu (com. Oltina, jud. Constanța), situată pe un promontoriu de pe malul Dunării. Cercetările arheologice efectuate între 1982-2002 au scos la iveală o importantă așezare fortificată getică (sec. III-I a.Chr.), cu o stratigrafie de peste 5 m, dispusă pe 9 niveluri. Tot aici au fost descoperite partial și resturile unui posibil sanctuar atribuit culturii Babadag (sec. IX-începutul sec. VIII a.Chr.). Acesta consta într-o serie de gropi și un șanț descoperite pe marginea vestică a sitului, în care au fost descoperite schelete, părți din schelete umane și de animale, asociate cu ceramică, pietre etc. Astfel de situații au fost des întâlnite pe parcursul perioadei timpurii a epocii fierului atât în spațiul carpato-balcanic și în afara sa.

**Keywords:** EIA, Babadag culture, Satu Nou, deviant burials, sanctuary.

**Cuvinte cheie:** Perioada timpurie a epocii fierului, cultura Babadag, Satu Nou, înmormântări atipice, sanctuar.

## INTRODUCTION

Located on a promontory on the right shore of the Danube, the Satu Nou–Valea lui Voicu site is mostly known for the important, Getic, fortified settlement (3<sup>rd</sup>-1<sup>st</sup> century BC) and for the published Early Iron Age discoveries. Excavated between 1982-2003, the promontory consists of two plateaus with an approximate 6 m height difference between them (Fig. 1/1-2).

After the excavation of the 9 Getic levels, (with over 5 meters of archaeological deposits) in section I (S I), during 1991-1992, a series of Early Iron Age amenities have been identified (pertaining to Babadag culture)<sup>1</sup>. Despite the rather limited surface, these findings reveal a very interesting situation, with deposits of human and animal bodies, along with evidence regarding their manipulation. The human and animal bones, displayed in anatomic connection most of the time, have been discovered in a ditch, partially located in the western side of the site and in pits such as pit 41, 43, 44, 46 (Fig. 1/3). These situations were widely described and analyzed by the authors. The study, although greatly appreciated, lacked the anthropological and archaeozoological analysis<sup>2</sup>, which deprived it of very important information.

Not long ago, in the collections of the “Francisc I. Rainer” Institute of Anthropology in Bucharest, part of the human and animal bones from Satu Nou–Valea lui Voicu, the 1991-1992 campaigns, were discovered and we resumed the research on one of the issues of this site.

## COMPLEXES WITH HUMAN BONES

### Catalogue of the finds

The discoveries of the Satu Nou–Valea lui Voicu have been recently used by us in a study regarding burials in the Early Iron Age settlements between the Balkans, Tisa and Nistru<sup>3</sup>, without the anthropological and archaeozoological data. Therefore, we will use the same format for the catalogue so we can easily integrate and use the above-mentioned information in this present study.

<sup>1</sup> We will not use this particular occasion to insist on the chronological division of the site, we will simply use the research and chronology as established by Sebastian Morintz (Morintz 1964; Morintz 1987), as we are in complete agreement with it (Ailincăi 2013; Ailincăi et al. 2014).

<sup>2</sup> Consult for this Irimia, Conovici 1993, note 4.

<sup>3</sup> Ailincăi 2015, 120-123. A wide analysis of this type of discoveries can be found in this paper (also see Ailincăi 2016).

**1. Satu Nou–Valea lui Voicu 1991-1992, S Ib-c, gr. 41** – circular opening pit (0.90 m diam.), walls excavated tilted towards the exterior (base diam. – 1.20 m) as far as 0.60 m deep. A human skeleton has been discovered in the filling, at 0.50 m depth, crouching, face down, SW-NE oriented (*individual 1*). A child skeleton (*individual 2*) and a dog skeleton – a young male aged between twelve to fifteen months – were deposited at his side (Fig. 3/1). The pit filling consists of ash, ceramic items (Fig. 3/4-6) and stones at the base<sup>4</sup>.

Although the written and graphic data showed that most of the bones of the two individuals were discovered, we could only retrieve a small part of them in the Anthropological Institute collection. Thus, individual 1 is represented by a skull that could be reconstructed, fragmented on the right parietal bone between the coronary suture and the parietal eminence. The skeleton belongs to a male individual between 39 to 43 years old at the time of death. In a separate package, (SN 1991, gr. 41, S Ib-c, c. 4N), along with underage bones we found a whole right cuboid – with slight surface erosion – and a fragment of the medial extremity of a left side rib coming from an adult individual. It is possible that the latter belongs to the post-cranial skeleton of *individual 1* but a direct connection between the skull and two bones is hard to prove.

*Individual 2* is represented by five small sized fragments of skull (three of calotte, a sphenoid/occipital and a base occipital), 12 fragments of vertebral arches from which we can identify the atlas, the rest being thoracic and cervical vertebrae. There are five fragments of left side ribs and four fragments of right side ribs that belong to the same individual. The skeleton belongs to an individual up to one-year old whose sex cannot be identified.

**2. Satu Nou–Valea lui Voicu 1991-1992, S Ib-c, c. 3N, gr. 43** – was discovered approximately 70 cm south of the pit 41. It had a circular opening (diam. – 0.70 m) and the largest diameter was 1.03 m. The excavation went as deep as 0.50 m. Close to the base, a skeleton was found deposited in crouched position, on the left side SE-NW oriented with the knees close to the body and face down (*individual 3*). The body was deposited on a layer of stones arranged as a circle presenting a larger amount of items in the northern part (Fig. 3/2). The pit also contained ashes, ceramic pieces and animal bones<sup>5</sup>. As for the ceramics, there are amphorae, a cup fragment, mug fragments, bowls and common pots (Fig. 3/3). There is only a complete skull left of the *individual 3*, belonging to a woman aged 39 to 52.

**3. Satu Nou–Valea lui Voicu 1991-1992, S Ia-b, c. 1-2, gr. 44** – circular opening pit (0.68 m diam.) and the largest diameter of 0.90 m, with walls excavated tilted towards the exterior as far as 0.55 m deep. In the pit filling, ceramic fragments and a few animal bones framed a child skeleton placed crouched, face down, NE-SW oriented (Fig. 4). Many stones were placed over this skeleton and underneath it, a layer of household scraps, ash and ceramic pieces. There were also a large vase fragment and numerous fragments of common vases and amphorae, found in the same pit<sup>6</sup>.

<sup>4</sup> Irimia, Conovici 1993, 89.

<sup>5</sup> Irimia, Conovici 1993, 53, 89, 91.

<sup>6</sup> Irimia, Conovici 1993, 53, 91.

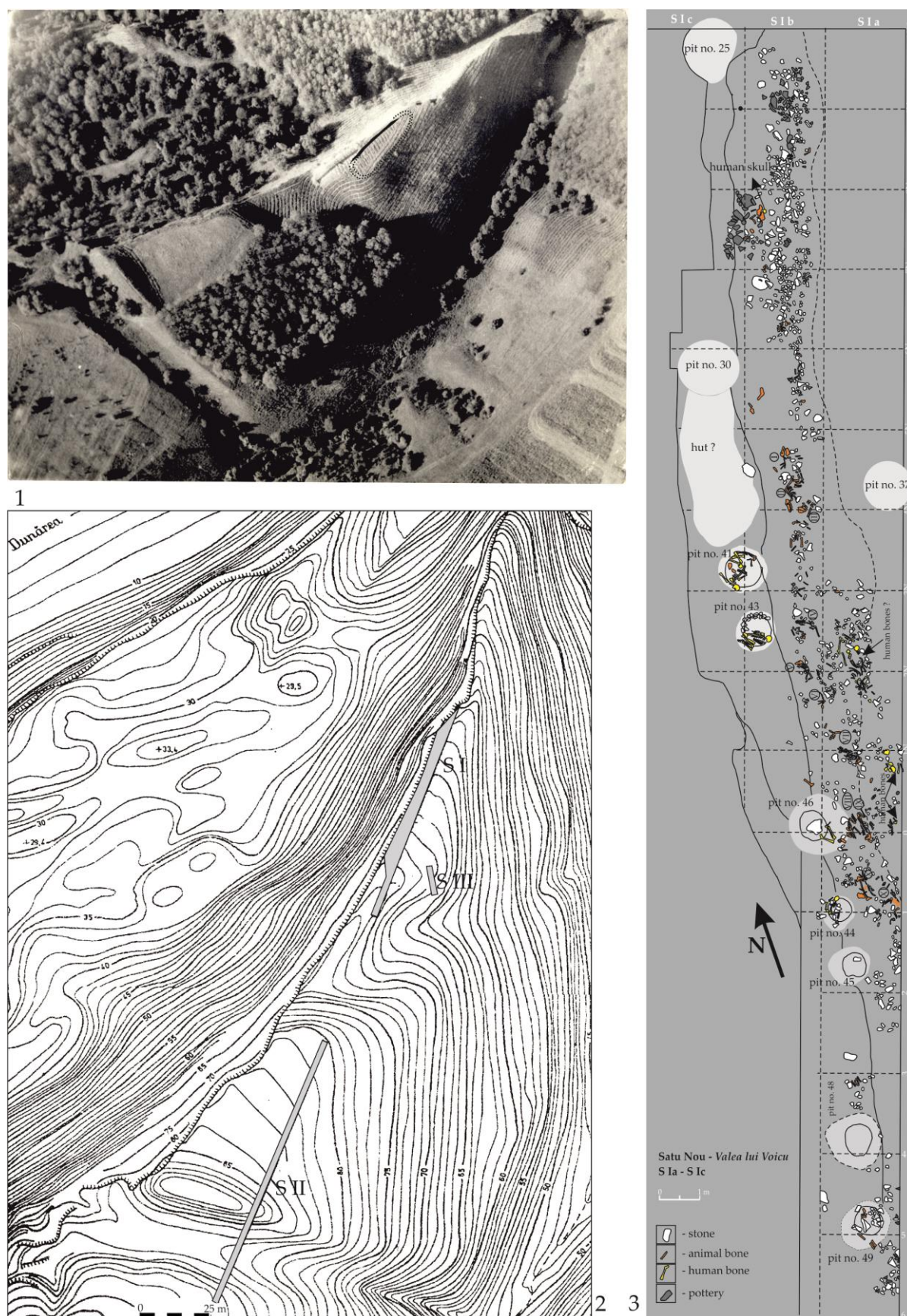


Fig. 1. Satu Nou-Valea lui Voicu. 1. Aerial photography; 2. Topographic elevation; 3. S I/1991-1992 Plan (Irimia, Conovici 1993).



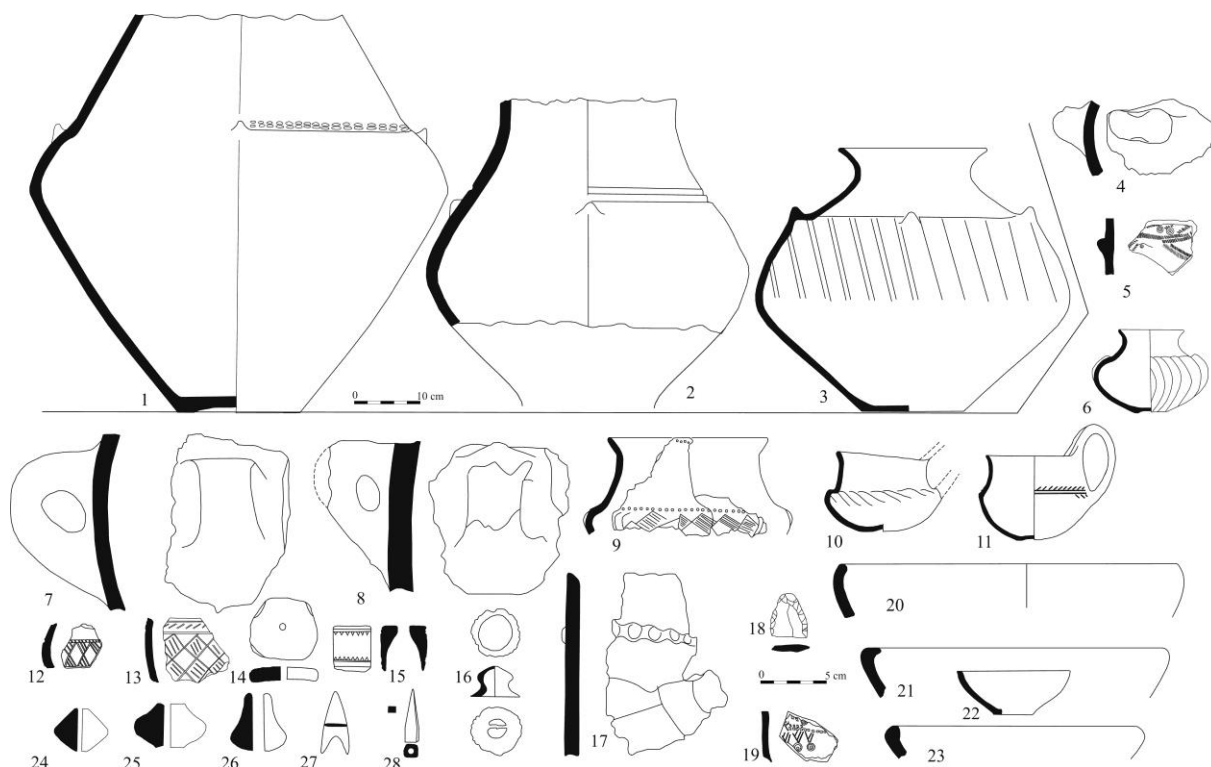


Fig. 2. Clay, bone and bronze objects discovered at Satu Nou–Valea lui Voicu (Irimia, Conovici 1993).

*Individual 4* is represented by a well-preserved skeleton. Almost all the bones were found, except for the humerus, right radius, the patellae and the right tibia. The rest of the bones are very well preserved but in a fragmented state, especially in the epiphysis area because of the archaeological excavation and storage. The skeleton belongs to an individual, between the age of 3 and 5, whose sex could not be determined.

**4. Satu Nou–Valea lui Voicu 1991-1992, S Ia-b, c. 1-1N, gr. 46** – circular opening pit (0.75 m diam.) with walls excavated tilted towards the exterior as far as 1.60 m deep (base diameter 1.45 m). In the pit filling there were ceramic fragments, animal bones, stones, a large stone slab, ash and an inferior member of a skeleton found in anatomic connection<sup>7</sup> (Fig. 5). The latter has not been identified yet, in the Anthropological Institute collection. There are other bones originating from the same individual: the lateral third of a right clavicle, a fragment of a right rib, three chips from a rib, a right ulna with modern fragmented epiphysis and a fragmented diaphysis in the distal third, a fragmented acetabulum and a right greater sciatic notch. The size and colour of the bones indicate an individual with the age between 15 to 20 but the sex cannot be determined (*individual 5*).

**5. Satu Nou–Valea lui Voicu 1991-1992, S I, “șanț”** (Fig. 1/3) – in the initial perimeter of S I, and in the extension of this section a ditch was excavated and researched. In its filling, stones, bones, ceramic pieces and 13 dogs<sup>8</sup> skeletons in anatomic connection were discovered. There were also

<sup>7</sup> Irimia, Conovici 1993, 53, 94.

<sup>8</sup> The 13 skeletons discovered in 1991-1992 are followed by another 2 discovered 2001-2002 (Conovici et al. 2002, 278; Conovici et al. 2003, 269).

isolated human remains such as: a jaw bone and two skulls (from the 1991-1992 campaigns) and other isolated human bones (including a skull) from the 2001-2002<sup>9</sup> campaigns.

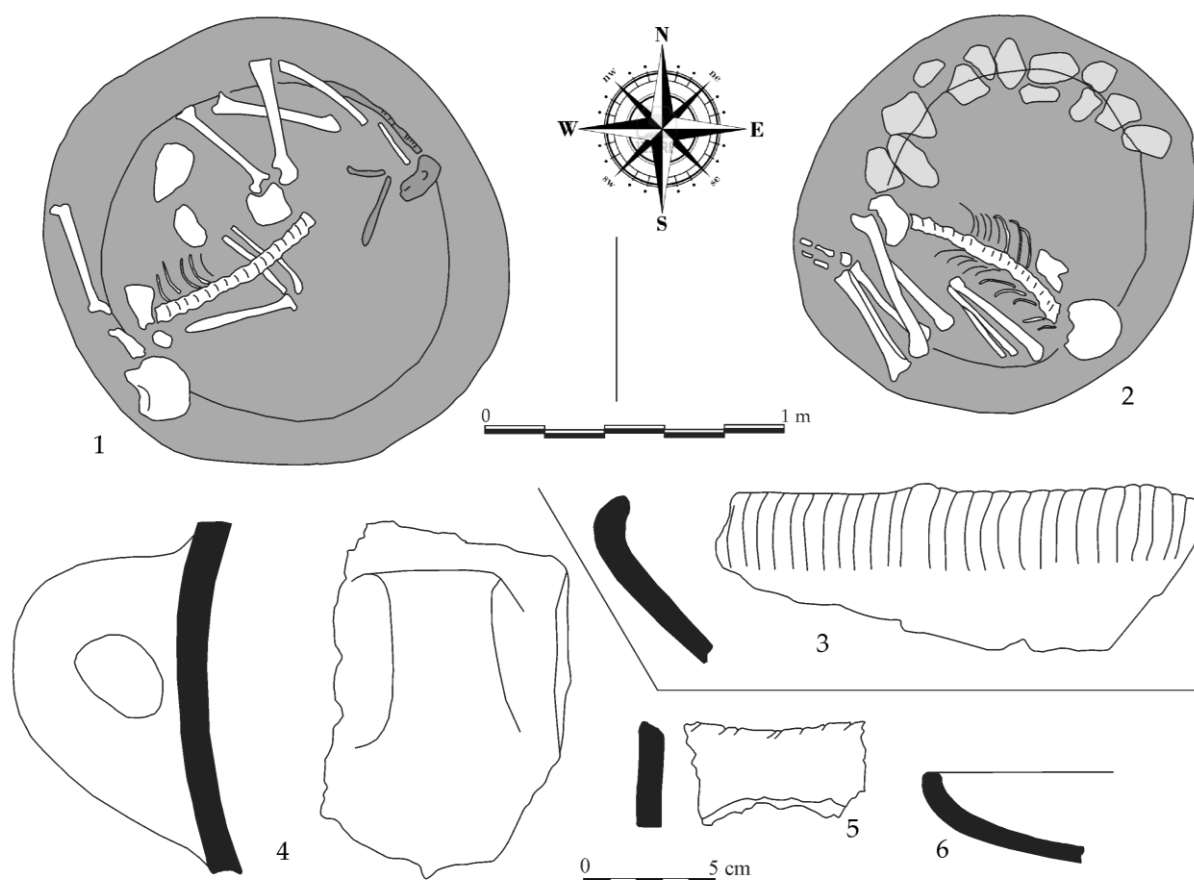


Fig. 3. Satu Nou–Valea lui Voicu: 1, 4-6. pit 41; 2-3. pit 43 (Irimia, Conovici 1993).

Without being completely convinced by the comparison between the materials found in the Anthropological Institute collection and those mentioned by the authors, we list below the anthropological data we know:

*Individual 6*, Satu Nou–Valea lui Voicu 1991, SIa, c. 1 – fragmented un-fused right vertebral arch, probably from a thoracic vertebra. According to its size, it belongs to an individual between 2 and 7 years old.

*Individual 7*, Satu Nou–Valea lui Voicu 1991, SIa, c. 1 – a right scaphoid with small modern fragmentation, totally formed, of small size. It belongs to a subadult between the age of 7 and 12.

*Individual 8*, Satu Nou–Valea lui Voicu 1991, SIa, c. 1 – is represented by the third proximal part of a left tibia, partially and originally broken in the proximal end and with missing segment from the excavation on the inferior part. We could not identify the modern broken fragments neither among the animal bones nor among the human bones from the different complexes excavated. It belongs to a subadult between 5 to 10 whose sex could not be determined. According to the age of death and taking under consideration the colour of the

<sup>9</sup> Irimia, Conovici 1993, 52-65, 89-97, fig. 1, 3/8, 22/1,2; Irimia 2003, 259; Conovici et al. 2002, 278; Conovici et al. 2003, 269-270.

bones it is possible that the above-mentioned fragments (individual 6, 7 and 8) to belong to one person whose bones could have been in anatomic connection but then disturbed during the excavation. Still, there are no elements to directly connect these osteological fragments.

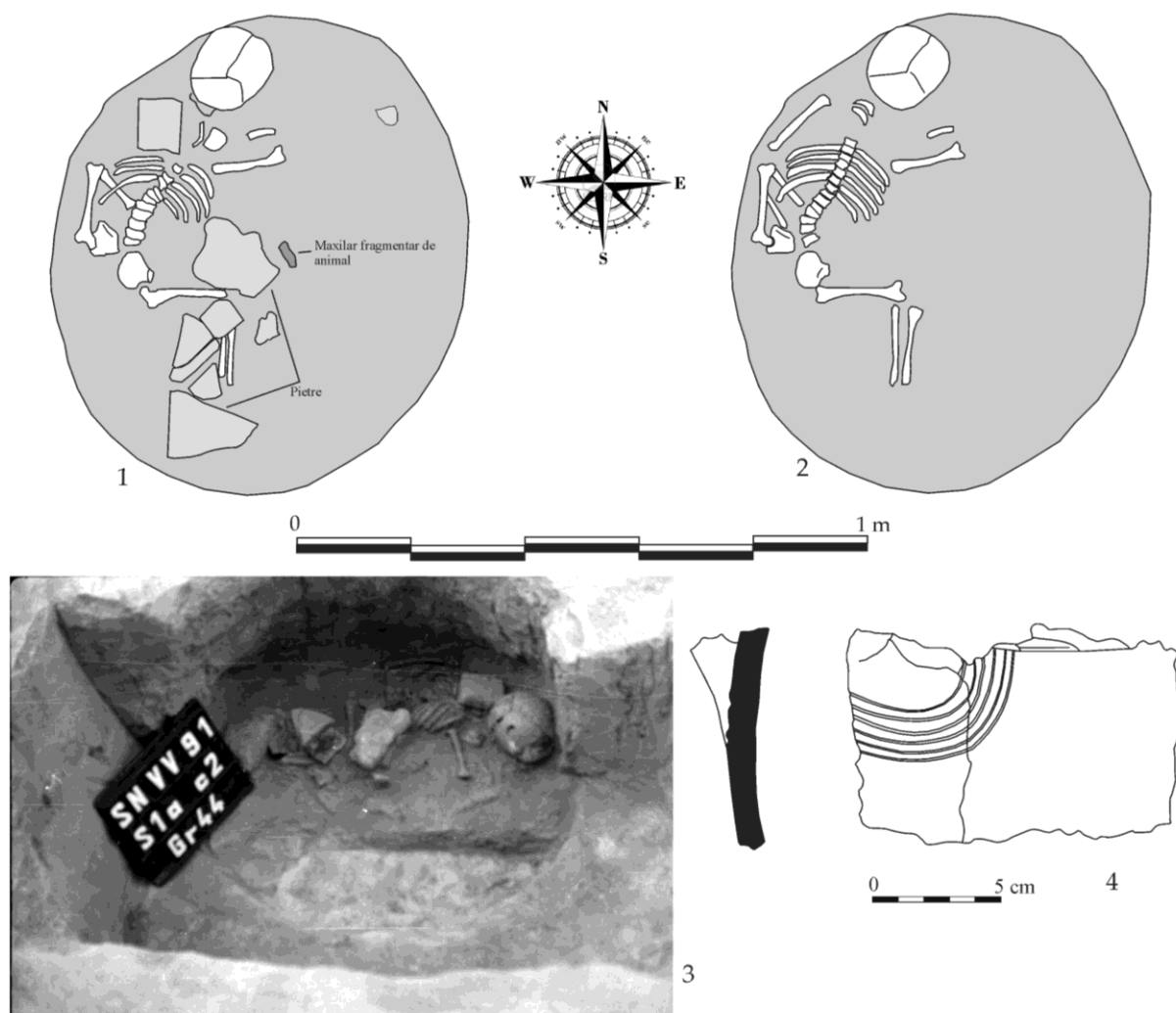


Fig. 4. Satu Nou–Valea lui Voicu, pit 44 (Irimia, Conovici 1993).

*Individual 9*, Satu Nou–Valea lui Voicu 1991, SIa, c. 1 – is represented by a fragment of the gluteal tuberosity coming from the lateral medial side of a left femur originally broken. The fragment belongs to an individual whose sex cannot be determined, aged 20 to 50.

*Individual 10*, Satu Nou–Valea lui Voicu 1991, SIa, c. 1-1N – is represented by three human osteological fragments from a subadult. According to the size and colour, they could all come from the same individual. There is a fragment of a right scapula, a piece of lamina and articular processes probably from a cervical vertebra (C2) and the diaphysis of a left humerus. All three bones were originally fragmented but during the excavation small alterations occurred as well. In a package noted (SN 1991, SIa, c. 1-1N) we identified a proximal third of a diaphysis and a partial epiphysis of a right humerus. According to the colour and size, they come from the same individual described above. Just as the above, all fragmentation comes from ancient time. The skeleton belongs to a subadult whose sex could not be determined, aged between 4 and 10.

Although the death age is similar, we have no elements that sustain the possibility that the bones numbered as individuals 6, 7 and 8 could come from the same individual as the one identified as individual 10. Most likely there are two individuals since the vertebral arch of individual 6 and the vertebrae fragment of individual 10 have different sizes of the epiphysis.

*Individual 11, Satu Nou–Valea lui Voicu 1991, S Ia, c. 1N-2N, sch. A* – is represented by a calotte, jaw fragments and a thoracic vertebra. The skeleton belongs to an individual between 6 and 7, whose sex could not be identified.

*Individual 12, Satu Nou–Valea lui Voicu 1991, S Ia, c. 1N-2N, sch. B* – is represented by the posterior left side of a left parietal. The skeleton belongs to an individual between 2 and 14, whose sex could not be identified.

*Individual 13, Satu Nou–Valea lui Voicu 1991, S Ia, c. 1N-2N, sch. C* – is represented by the left and right-hand bones. The skeleton belongs to an individual between 20 and 40, whose sex could not be identified.

*Individual 14, Satu Nou–Valea lui Voicu 1991, S Ia-Ib, in the stratigraphic profile, c. 3-4, sch. A* – is represented by a small fragment of a calotte, originally broken, coming from an individual between 20 and 50 whose sex could not be identified.

*Individual 15, Satu Nou–Valea lui Voicu 1991, S Ia-Ib martor, c. 3-4, sch. B* – is represented by six fragments of tibial diaphysis, four of which could not be restored. All fragmentation originated in ancient time. They belong to an individual between 20 and 50 whose sex could not be identified.

*Individual 16, Satu Nou–Valea lui Voicu 1991, S Ib, c. 5N, sch. A* – is represented by a fragment of a left temporal bone broken anciently. They belong to an individual between 20 and 50 whose sex could not be identified.

*Individual 17, Satu Nou–Valea lui Voicu 1991, S Ib, c. 5N, sch. B* – is represented by a fragment of the petrous pyramid with all fractures made anciently. They belong to an individual between 20 and 50 whose sex could not be identified.

*Individual 18, Satu Nou–Valea lui Voicu 1991, S Ib, c. 5N, sch. A* – a fragment from the posterior side of a tibial diaphysis - possibly left side. They belong to an individual between 20 and 50 whose sex could not be identified.

*Individual 19, Satu Nou–Valea lui Voicu 1991, S Ib, c. 5N, sch. B* – was found in a different package with the same numbers as individuals 16 and 17. It is represented by a fragment of the diaphysis of a long bone (femur or tibia?) different in size and colour than the individual numbered as 18. It belongs to an individual between 20 and 50 whose sex could not be identified.

*Individual 20, Satu Nou–Valea lui Voicu 1991, S Ib, c. 6N-7N* – is represented by a fragment of skull possibly a parietal, belonging to an individual whose sex could not be determined. According to the size and suture synostosis we can place it between the ages of 2 to 14.

## **6. Satu Nou–Valea lui Voicu 1991. Human osteological remains discovered in a secondary context, Getic level 10**

*Individual 21, Satu Nou–Valea lui Voicu 1991, S Ib, c. 8N, niv. 10, sch. A* – subadult skeleton, relatively well represented with certain anatomic segments missing (shoulder bones, left humerus, most part of the right one, the right tibia and all of the left foot bones). Since all the bone fractures and breakages are modern, there is a possibility that the skeleton had been complete and that all the missing parts could have been caused by a slack field excavation –



especially that the excavation plan only illustrated a skull fragment in this area. The skeleton belongs to an individual between 3 and 5, whose sex could not be identified.

*Individual 22, Satu Nou–Valea lui Voicu 1991, S Ib, c. 8N, niv. 10, sch. B* – was identified in another package along with the partially preserved ribs of skeleton A. It is represented by a posterior proximal third of a left tibial diaphysis that had been fractured in ancient times and partly in modern times. It belongs to an individual between 20 and 40 whose sex could not be identified.

*Individul 23 Satu Nou–Valea lui Voicu 1991, S Ib, c. 8N, niv. 10, sch. C* – in another package we identified a parietal bone fragment (marked just as individuals 22 and 23). Its colour resembles the tibia attributed to individual B and there is a possibility that it comes from individual 22 (but there are no elements to certify this connection). The fragment was originally broken and it is located in the posterior left side of the parietal, partially preserving the lambdoid and sagittal suture. On the lateral side, the edge of the rupture indicates an intentional green stick fragmentation, performed peri-mortem. It belongs to an individual between 20 and 40, according to the suture synostosis, whose sex could not be identified.

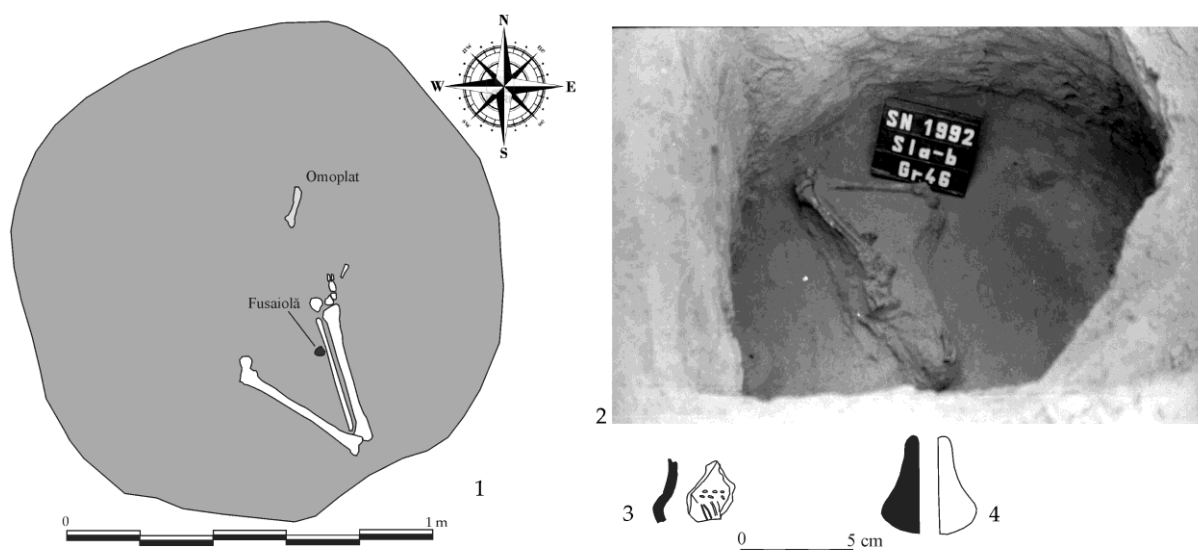


Fig. 5. Satu Nou–Valea lui Voicu, pit 46 (Irimia, Conovici 1993).

## 7. Satu Nou–Valea lui Voicu 1991, no marking

*Individual 24 Satu Nou–Valea lui Voicu 1991, passim, sch. A* – is represented by a frontal bone fragment, a parietal one, a right temporal and an unidentifiable fragment all belonging to an adult individual, between 20 and 50, possibly a male.

*Individual 25 Satu Nou–Valea lui Voicu 1991, passim, sch. B* – is represented by another parietal fragment with the coronal suture coming from an adult individual aged between 20 and 50, whose sex cannot be determined.

*Individual 26 Satu Nou–Valea lui Voicu 1991, passim, sch. C* – is represented by a 2<sup>nd</sup> right metatarsal. The posterior epiphysis was broken in modern times and it comes from an adult individual between 20 and 40, whose sex cannot be determined.

## ANTHROPOLOGICAL DATA

### Methodology for the Analysis of Human Remains

The preservation of the bone surface was estimated according to Connell and Rauxloh<sup>10</sup> and Connell<sup>11</sup>. For sex determination, we used cranial<sup>12</sup> and postcranial<sup>13</sup> features. Age estimation for subadults, was computed using dental eruption<sup>14</sup> and extent of epiphyseal synostosis<sup>15</sup>. For estimation of the age of the adult skeletons only cranial suture synostosis<sup>16</sup> was available. If none the above-mentioned indicators were present, age was estimated based on general features (degenerative transformations of the preserved skeleton segments), occurrence of osteoarthritis on the margins of the vertebrae and on joints according to Ubelaker<sup>17</sup> and resorption of spongy tissue of proximal epiphyses of the humerus and femur, after Acsádi and Nemeskéri<sup>18</sup>. In some cases, skeletons with known age at death from “Francisc I. Rainer” Osteological collection were used as comparative material mainly for fragments of subadults skeletons.

### Discussion

All the analyzed bones are very well preserved and have no proof of animal gnawing or root marks. Most of the fragmentation originates from the excavation for all the skeletons from the pits and for individual 21. On the contrary, the isolated bones rarely present excavation markings but they all display ancient fractures and breakage.

The postcranial skeletons of individuals 1, 3 and partially 5 were not found, although they are represented in the excavation plan and description. Only the skulls and post cranial bones have been identified in the collection of the “Francisc I. Rainer” Institute of Anthropology in Bucharest. More than half of the isolated human bones have been identified among animal osteological remains, before and during the zooarcheological research.

The bones were numbered and described according to the context of excavation. Therefore, bones from distinct individuals were identified in the same package and received markings such as skeleton A, B, or C. The hypothesis was that they were all discovered in a limited area so they could have been deposited/discarded simultaneously. Prior to the analysis, an attempt was made to restore bones coming from different contexts, in order to determine if they belong to different or the same individuals, which have been deposited/discarded in different spaces. Only in the case of *individual 22* we were able to identify bone fragments belonging to *individual 21*. They were most likely mixed during the fieldwork.

Bone fragments of *individuals 24, 25 and 26* were attributed to the Early Iron Age levels since the taphonomic transformations and the bone colour are similar and unlike all other osteological materials attributed to the La Tène levels.

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<sup>10</sup> Connell, Rauxloh 2003, 2.

<sup>11</sup> Connell 2008, 9.

<sup>12</sup> Buikstra, Ubelaker 1994, 19-21.

<sup>13</sup> Steckel et al. 2006, 19-24.

<sup>14</sup> Steckel et al. 2006, 17, fig. 11-13.

<sup>15</sup> Powers 2008, 13-14, table 3; Buikstra, Ubelaker 1994, 41-44, fig. 20.

<sup>16</sup> White et al. 2012, 389-391, fig. 18.7-8.

<sup>17</sup> Ubelaker 1980, 60-62, fig. 77, 81.

<sup>18</sup> Acsádi, Nemeskéri 1970, 122-135, fig. 20, 22.

Table 1. Anthropological data.

Satu Nou–Valea lui Voicu	Sex	Age (years)	Observations
Individual 1	M	39-43	Dental diseases; traces of violence on the skull
Individual 2	?	0-1	Healed fracture of a rib
Individual 3	F	39-52	Dental diseases
Individual 4	?	3-5	Traces of <i>cribra orbitalia</i> ; unhealed fracture of the ribs
Individual 5	?	15-20	
Individual 6	?	2-7	It is possible that the bones belong to the same individual
Individual 7	?	7-12	
Individual 8	?	5-10	
Individual 9	?	20-50	
Individual 10	?	4-10	
Individual 11	?	6-7	
Individual 12	?	2-14	
Individual 13	?	20-40	Traces of osteoarthritis
Individual 14	?	20-50	
Individual 15	?	20-50	
Individual 16	?	20-50	
Individual 17	?	20-50	
Individual 18	?	20-50	
Individual 19	?	20-50	
Individual 20	?	2-14	
Individual 21	?	3-5	
Individual 22	?	20-40	
Individual 23	?	20-40	Traces of violence on the skull
Individual 24	M?	20-50	
Individual 25	?	20-50	
Individual 26	?	20-40	

The identification and description of pathological conditions of the skeletons relied mainly on Ortner's volume<sup>19</sup>. Skeletal lesions were designated as ante- or perimortem depending on the presence or absence of the healing signs on the affected edges. Postmortem transformation of the bones was identified by the lighter colour of broken surfaces compared to adjacent bone surface and differences in fracture types<sup>20</sup>.

### Age and sex

As for the sample demography, there is a balanced percentage between adult and underage osteological remain, both in the skeletons from the pits and among the isolated bones. We were able to identify the sex of the skeletons only in two cases. *Individual 24* has only one cranial trait that indicates a male.

### Pathology

In both cases where dentition is present (*individuals 1* and *3*) it displays alteration specific to old age and numerous dental lesions. There were traces of osteoarthritis identified on *individual 13's* hands.

<sup>19</sup> Ortner 2003.

<sup>20</sup> Byers 2005.

*Individual 4* shows traces of a general infection manifested through *cribra orbitalia*, microporosity in the palatal and lingual side of the mandibular rami, in the medial part of the tibia diaphysis and on the lateral side of the fibulae diaphysis. They can be the result of a non-specific infection, the result of an iron or vitamin C deficiency in the organism, or it can be a combination of such factors<sup>21</sup>.

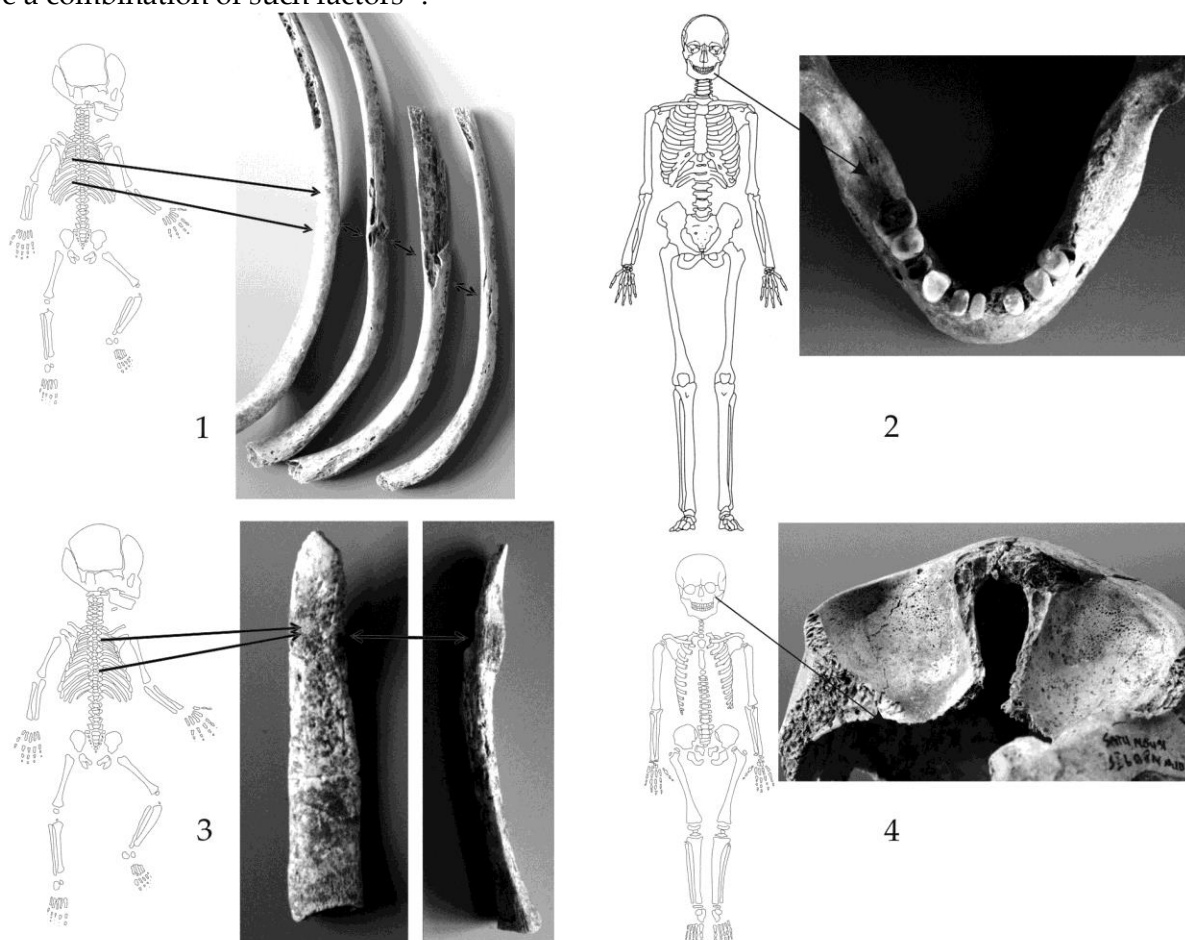


Fig. 6. Satu Nou-Valea lui Voicu. 1. *Individual 4* – ribs 7-10 on the right with a perimortem fracture; 2. *Individual 3* – antemortem tooth loss, caries and severe dental attrition; 3. *Individual 2* – healed fracture on a right rib; 4. *Individual 4* – traces of *cribra orbitalia*.

### Traces of violence

In some cases, we have evidence of violently generated lesions or accidents as follows:

- *Individual 1* (adult) has a fragmented area between the coronal suture and the parietal eminence. Radiant fractures are present on both parietals and on the frontal, whose shape and extension can indicate a lesion generated by a blunt force. Due to the lack of several parts of the bones and multiple fragmentations, the etiology of such lesion cannot be clearly defined. Also, the left frontal eminence is protuberant compared to the right one, possibly from an antemortem healed trauma.

<sup>21</sup> Ortner 2003.

- *Individual 2* (subadult), from the same pit as *individual 1*, has, on the medial side of a left side rib, (between ribs 4 and 8) a small bone callus, resulting from a fracture, possibly a crushing fracture. The fractured edges are well aligned with a slight displacement towards the posterior and are completely healed. It is possible that this trauma occurred at birth, it could be the result of a antemortem violent lesion or a post-natal accident. The healing proves that it did not cause the death of the individual.
- *Individual 4* (subadult) displays on an oblique line between the 7 and the 10 right ribs, in the medial half of their bodies, traces of green stick bone fractures, made perimortem, which might be one of the causes of death.
- *Individual 23*, represented by a fragment of the left side of a parietal, broken anciently, displays on the lateral side of the fragment exfoliation of the fracture's margin, which indicates an intentional green stick fracture, made perimortem.

## DEPOSITION OF ANIMAL BODIES (DOGS)

14 complete/incomplete dog skeletons<sup>22</sup> depositions at Satu Nou–Valea lui Voicu were subject to archaeozoological analysis. For certain, two of them belong to two males and four of them might be females. It is very difficult to determine the sex since this species is known for a reduced sexual dimorphism. The only valid criteria are for the male and it comes from the penial bone. Such bone was only identified in two cases<sup>23</sup>. The age of dogs has been established based on the degree of synostosis of the epiphyses<sup>24</sup>, dental eruption and erosion<sup>25</sup>.

Human interventions were noticed on half of the depositions, some of them fatal, to the skull (4 individuals), as well as cutting marks on postcranial skeleton: atlas, scapula, coxal bone, femur, tibia. We can assume that these animals were killed mostly by blows to the head. For now, we cannot provide an explanation for the cutting marks on the body, except perhaps for *individual 1* - consisting of one lower limb.

It is extremely interesting that 9 of these individuals exhibit varied pathology of numerous anatomical parts, from the skull to the phalanges. Most pathology healed during the individuals' lifetime but it stands proof of the blows or accidents suffered by them.

Gnawing marks from carnivorous animals were visible only on one individual.

The age of death of these animals is extremely variable. We have used the skeleton and dental criteria trying to determine it. Each time, we tried to concord the two evaluation systems. We came to the conclusion that all animals are above 6 months old. Most of all the 11 individuals whose dental age we tried to determine are young - stage A (5), B (2) and C (1) – under 15 months. Only three individuals are adults, two in stage D and one in stage E.

The skeletal age was determined for 12 individuals. Nine of these also have elements that can determine their dental age. Seven of them are young, under 12-18 months, and the

<sup>22</sup> Although made in a reduced scale, in the Early Iron Age level drawing there are almost complete animal skeletons. For this reason only, we consider the hypothesis that part of the dog bones could have been lost, either during the recovery from the field or during their storage in the Institute of Anthropology.

<sup>23</sup> Udrescu et al. 1999.

<sup>24</sup> Silver 1969; Schmid, 1977; Barone 1986.

<sup>25</sup> Schmid 1977; Horard Herbin, 1997.

rest are above 18-24 months. There is a very good connection between the dental and skeletal age. Thus, individuals presenting dental depletion up to stage C are under 15 months and the rest are above this age.

Table 2. Data regarding the analysis of dog osteological remains.

Satu Nou–Valea lui Voicu	Sex	Age	Observation
Individual 1	?	13-16 months	Lower inferior limb in anatomic connection. Cutting marks on the pubis; traces of chewing
Individual 2	F?	9-10 months	Incomplete skeleton; fresh and old breakage, anthropic interventions with sharp tools
Individual 3	M?	adult	Incomplete skeleton; healed traces of violence, traces of sharp object
Individual 4	M	12-15 months	Incomplete skeleton. Traces of healed fractures.
Individual 5	F?	young	Skulls
Individual 6	?	?	skulls
Individual 7	F?	12-15 months	Incomplete skeleton.
Individual 8	F?	3-4 years	Almost complete skeleton; traces of violence at skull level.
Individual 9	?	8-9 months	Incomplete skeleton; original fractures; traces of violence at skull level; healed fractures.
Individual 10	?	3-4 years	Incomplete skeleton; original fractures.
Individual 11	M	11-12 months	Almost complete skeleton; healed fracture at skull and rib level.
Individual 12	M?	adult	Incomplete skeleton.
Individual 13	?	2-3 years	Almost complete skeleton; original fractures; healed fracture at rib, humerus, cubitus and left radius.
Individual 14	?	13-16 months	Incomplete skeleton; healed fracture at skull level.

By combining the two criteria it results that 9 individuals are subadult (between 8 and 18 months) and five are adults, so we notice that young (under 6 months) animals are predominant.

## THE FAUNISTIC MATERIAL

Along with the above described and analyzed material in the “Francisc I. Rainer” Anthropological Institute in Bucharest, we also identified a significant lot of faunal material, other than the previously presented dogs. The study included a large faunal lot containing 1202 pieces of household (kitchen) waste, weighing 9.187g. Out of the 1202 analyzed remains, 1192 were of mammals (99.17%). Molluscs are represented in the sample by one *Unio tumidus* (swollen river mussel) valve. Fish is represented by five remains of a carp (one rib) and a catfish (one cleithrum, two vertebrae and one fin ray). Regarding their size, the carp (*Cyprinus carpio*) is estimated to have been large; the catfish (*Silurus glanis*), one individual was reconstructed for pit 41, of total length of approx. 1.2 m and weight of 13 kg; another individual, identified in 2N-3N squares, was estimated at 0.78 m and 3.3 kg. Three reptile remains were also identified: three plastron pieces of a *Testudo graeca* (spur-thighed tortoise). One ulna piece belonged to a small-sized bird<sup>26</sup>.

<sup>26</sup> Bălășescu et al. 2015.



Table 3. Distribution by number (NR), weight (W in grams) and minimum number of individuals (MNI) of the mammals remains found at Satu Nou–Valea lui Voicu.

Species	NR	%	W	%	MNI	%
<i>Equus caballus</i>	4	0.72	207	3.03	1	3.13
<i>Bos Taurus</i>	81	14.49	2617	38.29	4	12.50
<i>Ovis aries</i>	14	2.50	288	4.21	5	15.63
<i>Capra hircus</i>	6	1.07	140	2.05	2	6.25
<i>Ovis/Capra</i> (caprines)	244	43.65	1274	18.64	5	15.63
<i>Sus domesticus</i>	191	34.17	1956	28.62	10	31.25
<i>Canis familiaris</i>	10	1.79	46	0.67	2	6.25
<b>Domestic mammals</b>	550	98.39	6528	95.52	29	90.63
<i>Cervus elaphus</i>	5	0.89	180	2.63	1	3.13
<i>Sus scrofa</i>	2	0.36	121	1.77	1	3.13
<i>Lepus europaeus</i>	2	0.36	5	0.07	1	3.13
<b>Wild mammals</b>	9	1.61	306	4.48	3	9.38
<b>TOTAL determined</b>	559	100.00	6834	100.00	32	100.00

The faunal lot of Satu Nou can be compared to other lots that have been studied in the sites of the Babadag culture<sup>27</sup>. In most Babadag settlements mammal remains are preponderant, closely followed by fish remains. Domestic mammals are in preponderance (in Satu Nou they cover 90.6%). In most Babadag sites, cattle remains are in majority (between 34-38% in Babadag<sup>28</sup> and 58.6% at Rasova), except for the settlement in Satu Nou, where sheep and goats rank first. The second place is covered by pigs. We should not neglect the horse, used as food as well, because of its large size and meat quantity it offered.

## FINAL DISCUSSIONS AND OBSERVATIONS

Although summarily researched, with a major part of the material not available for further study, we were still able to distinguish the complexity of the Hallstatt site Satu Nou–Valea lui Voicu and the difficulty in interpreting it.

### Deposits and manipulation of human bodies, animal sacrifices and feasts

Taking under consideration all of the above, we can somehow reconstruct a wide range of human activity in this site. The unearthing in Satu Nou–Valea lui Voicu must be placed in the general context of the funerary discoveries in early Hallstatt settlements in South-Eastern Europe<sup>29</sup>, especially those in the Lower Danube, attributed to the Babadag culture<sup>30</sup>. A complex funerary practice, based on specific practices involving deposition, decomposing and manipulation of the body was documented here. A funerary behaviour that led to the deposit of the dead in settlements and places other than cemeteries was well observed and confirmed by research.

<sup>27</sup> Bălăşescu et al. 2015.

<sup>28</sup> Two archaeozoological studies were made over time in the site of Babadag, see Bălăşescu et al. 2015.

<sup>29</sup> Ailincăi 2015.

<sup>30</sup> Ailincăi et al. 2005-2006; Ailincăi 2008.

Archaeological excavation only affected the NE boundary of the site where a ditch and several pits were partially researched. Human osteological remains, excavated in the Satu Nou site, were found both in *primary* and in *secondary context*, in partial anatomic connection or isolated, sometimes originally fragmented. Isolated, originally fragmented bones were unearthed in the ditch, placed in small groups along household waste – faunal remains –, dog skeletons, stoned and ceramic material. At the same time, human bones were excavated in pits 41, 43, 44 and 46, most of time from the filling. From the graphic records, we can observe that pits 41, 43 and 44 contained whole skeletons in anatomic connection, proof of primary deposit. In pit 46, there was a lower limb in anatomic connection. Although it was not preserved, it can actually be linked with other isolated bones unearthed in the same context (*individual 5*). This particular situation, as well as the diverse scattered human bones excavated in the ditch, proves *the manipulation and re-deposit of human remains*.

As for the anthropological evidence, it is to be remarked the relatively large number of under aged (10 individuals). Such circumstances are common for other sites like: Hlinjeni–*La șanț* (82 individuals)<sup>31</sup>, Svilengrad (9 individuals)<sup>32</sup> and the collective tomb number 2 in Gomolava<sup>33</sup>.

*Perimortem traces of violence* on individuals 1, 4 and 23 are not enough evidence to sustain beyond doubt the practice of human sacrifice. They can just as well be marks of accidents, or the result of other violent treatment that led to the healed fractures. Similar examples were also documented on the Lower Danube, in sites such as Babadag, Enisala, Bucu, Niculițel or Jurilovca<sup>34</sup>.

This unusual funerary practice was associated at Satu Nou–*Valea lui Voicu* by animal (dog) sacrifices. The bones of the analyzed dogs show evidence of a violent life, with multiple healed fractures, but the main cause of death for most animals was a blow to the head. There is also a large quantity of faunal remains that can be considered kitchen scraps. They can be proportionally compared with lots from other sites of the Babadag culture that have been analyzed. They prove that animal products were consumed, probably during ceremonies performed especially for human body deposits.

### **Is this site a regular human settlement, common for the Early Iron Age or should it be considered a special, cultic one?**

Taking under consideration these particular situations, we tried to draw the attention to the existence of such special sites, as the one in Satu Nou–*Valea lui Voicu*<sup>35</sup>, different from regular settlements. All the above-mentioned facts such as: the large amount of body deposits, both human and animal, the dog sacrifices and the lack of living structures, prove that this site had a special purpose.

The Early Iron Age site (which covers only the upper highland) is quite small in size (approx. 1000 square meters). It is located in the very proximity of the Danube, it is both visible and offering a good visibility. It is a strategic location, very common for the Babadag communities. At the same time, it is impossible not to notice the lack of human living

<sup>31</sup> Gol'ceva, Kašuba 1995; Litvinova 1995.

<sup>32</sup> Nekhrizov, Tzvetkova 2008.

<sup>33</sup> Tasić 1972; Farkaš, Marcsik 1976.

<sup>34</sup> Ailincăi 2015, 170-172.

<sup>35</sup> Ailincăi 2015.

facilities and the density of human remains, of anatomically connected animal skeletons. Despite all the above, we found very little traces that would indicate animal intervention on the analyzed bones. This can mean that the place was either protected against carnivorous intervention or the activities were performed for a short period of time.

Because of the reduced surface of the excavation, it is difficult to get an overall image of the site, let alone one of the human living facilities. The trace of the ditch in which most of the human and animal remains were found remains a mystery. We were also unable to position other complexes in the site.

Despite these deficient parts of the research, the Satu Nou–*Valea lui Voicu* site is in our opinion a very special one, with a distinguished purpose, different from settlements. The data available up to present indicates that, at the beginning of the first millennium B.C., human communities in this area used it for special funerary ceremonies. The funerary behaviour is hard to reconstruct, but we can at least distinguish the following practices:

- Human body deposits and their later manipulation;
- Animal sacrifice (dogs) and their deposit in a specially assigned ditch;
- Food consumption at feasts that accompanied such rituals;

Until the present, the closest analogy to these circumstances is the Hlinjeni–*La Șanț* site, in the Republic of Moldova. The latter is a fortified settlement of a few hectares, located on a high promontory, on the shore of the Ciorna River. During the excavation (1988-1990) an area of 570 sq. meters was covered and the following had been identified: several compact groups of human remains deposits, most of them with proof of manipulation, associated with ceramic and bone objects, along with stone arrangements; pits containing whole skeletons in anatomic connection were also discovered<sup>36</sup>. Apparently, the anthropological researches lead to the conclusion that there were around 147 individuals, most of them under age.

Although briefly investigated, these two places can suggest, at least for this area that at the beginning of the first millennium B.C. there were special sites, used only for funerary purpose. They were either in direct connection or complementary to the *funerals* in the settlements or, in the few identified cemeteries<sup>37</sup>. A precise reconstruction of an extremely complex funerary behaviour, involving direct intervention, manipulation and successive deposits of the human bodies – either whole or partial – is very difficult to be accomplished.

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<sup>36</sup> Gol'ceva, Kašuba 1995; Litvinova 1995.

<sup>37</sup> We can mention the Foltesti cemetery (László 2006). Human bone with no anatomic connection were buried alongside funerary inventory (ceramic pots and metal objects). There was also post deposit intervention on the bodies such as the extraction of certain anatomical parts in the Sboryanovo (Stojanov 1997) necropolis or in the cemeteries of the Saharna-Solonceni culture (Kašuba 2000; Niculiță, Nicic 2014).

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