

# Bronze and Iron Age Finds from Romuald's Cave, Istria: 2014 Excavation Season

Ivor Janković<sup>1</sup>, James C. M. Ahern<sup>2</sup>, Sanjin Mihelić<sup>3</sup> and Zrinka Premužić<sup>1</sup>

<sup>1</sup> Institute for Anthropological Research, Zagreb, Croatia

<sup>2</sup> University of Wyoming, Department of Anthropology, Wyoming, USA

<sup>3</sup> Archaeological Museum in Zagreb, Zagreb, Croatia

## ABSTRACT

*Archaeological excavations in Romuald's Cave (Lim Channel, Istria, Croatia) have yielded evidence of human activity stretching back to the Middle Palaeolithic. This paper reports on recent Bronze Age/Early Iron Age discoveries uncovered during excavations as part of the Croatian National Science Foundation funded project: »Archaeological Investigations into the Late Pleistocene and Early Holocene of the Lim Channel, Istria.« Fragmentary skeletal remains from at least two individuals were excavated, and a direct radiocarbon date from one of the remains is commensurate with a Bronze Age attribution. The recovered ceramics confirm this age attribution, although they range from the Middle Bronze Age to incipient Iron Age in character. Furthermore, the ceramics indicate that the human activities in Romuald's Cave were associated with the nearby settlements of Gradina and St. Martin.*

**Key words:** ARCHAEOLOGICAL, Istria, Lim Channel, Palaeolithic, Bronze Age, Iron Age, bioarchaeology, human remains

## Introduction

Romuald's Cave is situated on the eastern end of Lim Channel in Istria, Croatia (KO Sošići, k.č. 312/1, k.č. Lim-Draga). The site was excavated by various researchers starting from the end of the 19<sup>th</sup> century<sup>1-3</sup>. Particularly important were the excavations of M. Malez who noted the archaeological contexts of the site and discovered different faunal finds (especially cave bear bones), as well as various lithic artefacts associated with the Late Upper Palaeolithic and Early Iron Age finds<sup>4,5</sup>.

During 2007, D. Komšo carried out a small test pit excavation with the aim of collecting samples for various analyses and absolute dating<sup>6</sup>. A small trench (1.5x1.5 m) was excavated and earlier stratigraphy was revised. Prehistoric pottery, bones and several lithic artifacts were collected. Finds from the upper layer are associated with the Bronze Age period according to D. Komšo<sup>6,7</sup>.

New excavations at the site were carried out in July 2014 as part of the project »Archaeological investigations into the Late Pleistocene and Early Holocene of the Lim Channel, Istria« funded by the Croatian Science Foundation. Archaeological finds from prehistoric period (Iron and Bronze Age, Palaeolithic) were collected. In this paper

we present the analyses of the Bronze Age finds (pottery and human skeletal remains).

A trench measuring 3x2 m was set in the southwest part of the first chamber of the cave (Trench 3). All the described finds belong to the upper layers (layers 1-5) which are morphologically indistinguishable and can be considered as a single layer, although partly disturbed due to animal activity (e.g. small tunnels made by badgers, etc.).

## Finds from the 2014 Season: Human and Cultural Remains

### *Human remains*

The human skeletal remains from Romuald's Cave were analysed according to the standards of modern anthropological practice<sup>8</sup>. An inventory of the remains was made, state of preservation was established, standard macroscopic and metric analyses were carried out, as well as minimum number of individuals, age at death estimation, sex estimation, and all pathological changes were noted. The minimum number of individuals was estimat-

**TABLE 1**  
HUMAN SKELETAL REMAINS FROM TRENCH 3

Skeletal element	Square/layer	Sex/age
Distal right tibia <sup>1</sup>	S3/L1	Adult, probably male (based on characteristics described in Buikstra and Ublelaker 1994 <sup>8</sup> )
Parietal fragment <sup>2</sup>	S3/L1	Adult, possibly male (based on characteristics described in Buikstra and Ublelaker 1994 <sup>8</sup> )
Proximal 2 <sup>nd</sup> left metatarsal <sup>3</sup>	S3 (A2)/L2	Adult
5 <sup>th</sup> left metacarpal <sup>4</sup>	S3 (A2)/L2	Adult, probably male (based on characteristics described in Buikstra and Ublelaker 1994 <sup>8</sup> )
Permanent maxillary 4 <sup>th</sup> right premolar <sup>5</sup>	S3 (B2)/L2	Adult
Frontal or parietal fragment <sup>6</sup>	S3 (B3)/L2	Adult
Permanent maxillary right 1 <sup>st</sup> molar <sup>7</sup>	S3 (B3)/L2	Adult (over 35 years of age?), possibly male (based on characteristics described in Buikstra and Ublelaker 1994 <sup>8</sup> )
Parietal fragment <sup>8</sup>	S3 (C3)/L2	Adult
Thoracic vertebral body (T1-12) fragment	S3 (A2)/L2/3	Adult
Permanent mandibular right incisor (I <sub>1</sub> ?) <sup>9</sup>	S3 (B3)/L2	Adult (over 35 years of age)
Frontal fragment (?) <sup>10</sup>	S3 (C1)/L2/3	Child (under 5 years of age)

<sup>1</sup> tibial maximum distal epiphyseal breadth 54.2 mm

<sup>2</sup> 47.1 x 42.6 mm

<sup>3</sup> maximum length 41.4 mm, base width 21.4 mm, base depth 10.5 mm

<sup>4</sup> maximum length 54.7 mm, base width 11.0 mm, base depth 12.8 mm

<sup>5</sup> some occlusal wear. Maximum height 20.4 mm, crown height 2.0 mm (buccal surface), 4.8 (lingual surface)

<sup>6</sup> 42.3 x 24.2 mm, some ectocranial porosity

<sup>7</sup> heavy lingual wear, crown almost worn off

<sup>8</sup> 37.2 x 29.1 mm, some postmortem damage on the ectocranial surface

<sup>9</sup> heavy wear, especially on the lingual and mesial surface, crown almost completely worn off

<sup>10</sup> 37.2 x 29.1 mm. Postmortally fragmented into 4 pieces, some ectocranial porosity

ed based on duplication of skeletal elements, as well as degree of ontogenetic development. Age at death estimation was based on several morphological criteria, including bone size and robusticity, degree of epiphyseal closure, dental attrition and other guidelines and standards of bioarchaeological practice<sup>9-12</sup>. Sex estimation was based on morphological characteristics of cranial elements and metric traits of long bones<sup>8</sup>. A small fragment of distal tibia was sent for radiometric dating by AMS method with the result of 3150±46 years before present (Chrono Laboratory identification UBA-27651. Date is in conventional 14C age, fraction corrected using AMS 813C. Calibrated AD age ranges (1 sigma) are 1496-1473 (probability distribution 0.187), 1462-1392 (probability distribution 0.736), 1335-1324 (probability distribution 0.078), (2 sigma) 1507-1293 (probability distribution 1.000)).

Based on context, spatial distribution and bone preservation, it is very likely that all human skeletal remains from Trench 3 in Romuald's Cave are associated with the same period. A minimum of two individuals are present, an adult (most likely male aged over 35 years of age) and a child (under 5 years of age). Comparison of metric data collected from the distal tibia with published data from archaeological, as well as modern populations, strongly suggest that the tibia is from an adult male<sup>13,14</sup>. A similar

conclusion can be made based on a comparison of metric data for the fifth metacarpal bone, which also most likely belongs to an adult male<sup>15,16</sup> (Table 1).

### Pottery

The excavation in Trench 3 of Romuald's Cave yielded a total of 647 potshards, collected in 52 bags and distributed by layers (1-5) and squares (A1-C3). A preliminary analysis of ceramic finds distinguished a group of 82 shards that featured a specific distinctive element (rim, base, handle, characteristic decoration), making up 12.7% of all finds. Among these, rims are the most common (39 specimens or 6.0%), followed by base shards (15 specimens or 2.3%) and handles (11 or 1.7%), while further 17 pieces (2.6%) bear additional decoration.

The pottery assemblage by and large consists of jars, bowls and cups of various types, attributable to the Bronze Age and the Early Iron Age. The following decoration techniques are present: grooving (concentric circles on the walls), incision (vertical interrupted lines, notches on rims), fluting, stabbing, fingertip impressions (mainly on rims of jars and on relief stripes on the wall), relief applications (horseshoe-shaped, zigzag and button-shaped) and pseudo-cord ornament.



Fig. 1. Bronze and Iron Age potshards (left: triangular handle; centre: pseudo-cord decorated rim; right: cothon shard) (photo by: Igor Krajcár).

Among the most distinctive finds we single out a massive triangular handle with wide flat top, possibly of Middle Bronze Age date (Figure 1 left). There are also several characteristic handles of rounded triangular or oval cross-section, which widen towards the base, as well as strap handles of saddle-shaped cross-section. Another interesting specimen is the fragment of flat everted faceted rim of a globular jug, decorated with pseudo-cord ornament forming parallel oblique bands (Figure 1 centre), which we may attribute to the incipient Early Iron Age. One of the chronologically latest finds, also of Early Iron Age date, is a handle with a part of the wall, which we can attribute to the so-called cothon type pots (Figure 1 right), with a typical transverse handle.

Ceramic finds from Trench 3 can generally be dated to the closing stages of the Middle Bronze Age of Istria, the Late Bronze Age and the incipient Early Iron Age. However, it is impossible to put forward any definite conclusions regarding the timeframe of the use of the cave without additional data on the stratigraphy and absolute chronology of the site. For instance, some of the already mentioned distinctive forms, such as the triangular handles or horseshoe-shaped ribs were present in Istria and the broader region from the Early Bronze Age, while certain elements can also be linked with the later phases of the Early Iron Age<sup>17</sup>. A radiocarbon date obtained for the distal right tibia from layer 1 fits very well into the chronological picture obtained by the preliminary analysis of the pottery.

## Discussion and Conclusion

Parallels for the ceramic forms from Romuald's Cave are found at a number of sites in Istria, for instance at the Monkodonja hillfort<sup>18</sup> and at Picugi (cothon shards), how-

ever, the best analogies are found at the neighbouring hillfort site of Gradina above the Lim Channel, with which the populations whose traces we have found in Romuald's Cave were certainly associated. Although the ceramic assemblage from the necropolis at Gradina above Lim is best known from publications by Mihovilić (1977) and Urem (2012), it merits underlining that Romuald's cave is situated right beneath another hillfort—St. Martin—as a dominant point in landscape from which one controls a broad area from the mouth of the Lim Channel in the west, Bale in the south, St. Lovreč in the north and the bend of the Lim Channel towards the interior in the east<sup>19,20</sup>. The settlement at St. Martin was surrounded by a double concentric wall, and the habitation area yielded also urn burials of the Early Iron Age<sup>21</sup>.

Although at present it might be premature to reach any sounder conclusions about the ways the Romuald's Cave was used during the Bronze and Iron Ages, it makes sense to conclude that it was mostly used as a temporary residence or shelter. Further, we might also think about the possibility that it was used as a burial place, both in the Bronze and Iron Ages, as suggested by the remains of human bones found in the archaeological excavations, as well as by the fact that the documented ceramic forms have good parallels among the funerary finds from the neighbouring necropolis at Gradina (in urn burials of the Histri cothon pots were often used as lids<sup>22</sup>).

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I. Janković

*Institute for Anthropological Research, Gajeva 32, 10000 Zagreb, Croatia*  
e-mail: ivor@inantro.hr

## BRONČANODOBNI I ŽELJEZNODOBNI NALAZI IZ ROMUALDOVE PEĆINE U ISTRI: SEZONA 2014.

### SAŽETAK

Arheološka istraživanja u Romualdovoj pećini (Limski kanal, Istra, Hrvatska) otkrila su dokaze ljudske aktivnosti koji potječu još od razdoblja srednjeg paleolitika. U ovom radu predstavljamo nove nalaze iz brončanog i željeznog doba otkrivene tijekom istraživanja u sklopu projekta "Arheološka istraživanja kasnog pleistocena i ranog holocena na prostoru Limskog kanala, Istra" kojeg financira Hrvatska zaklada za znanost. Pronađeni su fragmentirani kosturni ostaci najmanje dvije osobe, a jedan ulomak direktno je datiran metodom radioaktivnog ugljika u razdoblje brončanog doba. Otkriveni keramički nalazi potvrđuju ovu dataciju, iako budući da ih je moguće datirati od srednjeg brončanog doba do početnog starijeg željeznog doba. Nadalje, keramika sugerira da su ljudske aktivnosti u Romualdovoj pećini povezane s obližnjim naseljima Gradina i Sv. Martin.