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Tomb number 2 of the Church of St. Michael in Mornago (Varese, Italy). Anthropological and archaeological study of medieval funeral remains

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Abstract. *The current paper aims to present the archaeological and anthropological results of the investigation conducted on a medieval burial which presents several features that recall the Longobard culture. After the archaeological evaluations on the architectural morphology of the tomb and on the grave goods, we proceeded with the anthropological investigations on human and animal bone remains. These analyses allowed us to formulate a hypothesis related to this particular funeral ritual from ancient Longobard tradition. The tomb number 2 of St. Michael church in Mornago represents a rare evidence of inhumation with bird in Northern Italy.*

Rezumat. *Autorii prezintă rezultatele investigației arheologice și antropologice întreprinse asupra unui mormânt medieval ce posedă trăsături amintind de cultura longobardă. După evaluările arheologice asupra morfologiei arhitectonice a mormântului și a inventarului, am investigat rămășițele umane și animale. Analiza acestora ne-a permis să formulăm o ipoteză legată de acest ritual particular care ține de tradiția veche longobardă. Mormântul nr. 2 din biserica Sf. Mihail din Mornago reprezintă o mărturie rară a inhumației cu pasăre din Italia de nord.*

Keywords: Longobard burial, Middle Ages, funeral ritual, taphonomy, anthropological investigation.

The study and survey of the burial remains and sepulchral sites allow us to shed light on ancient symbolic approaches and beliefs, as well as those rituals that defined the view of the funeral at a specific point in time. In the field of archaeology and funerary anthropology, we have already learned the importance of a simultaneous reading of archaeological data together with the results of anthropological analysis. This stems from the explicit belief that the burial type depends also strongly on the conservation and conditions of biological remains and funerary objects. For these reasons, taphonomic anthropology, or the science

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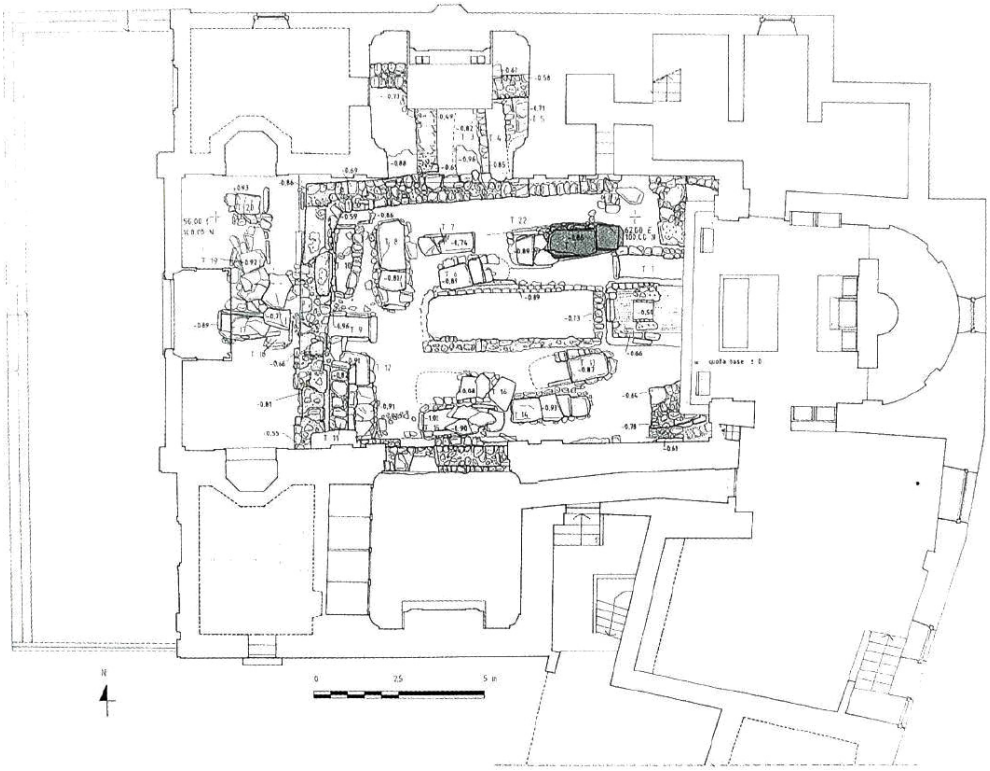

Figure 1. Church of St. Michael of Mornago, plan of the excavation.

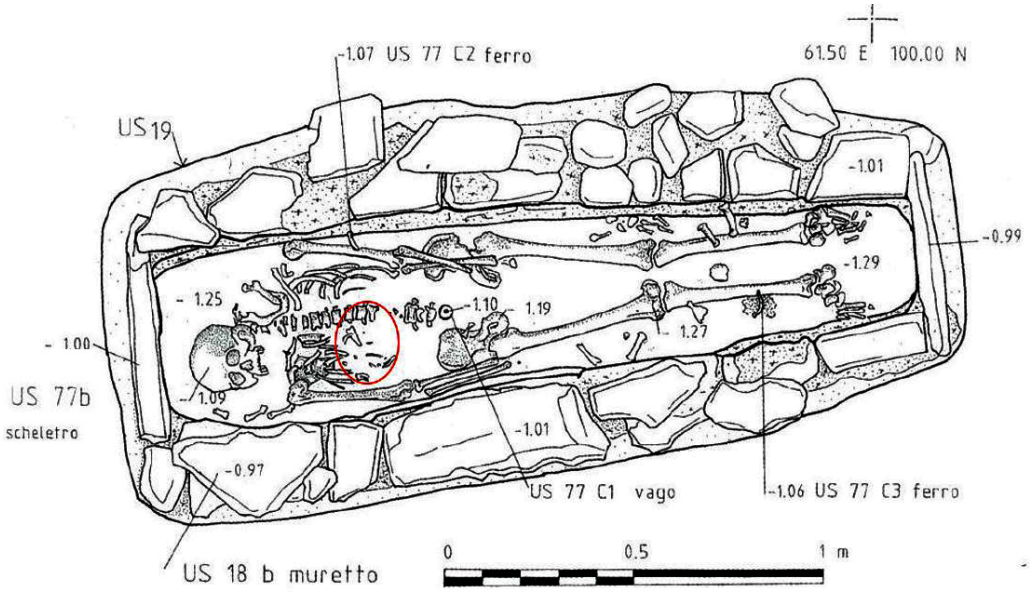

Figure 2. Archaeological draft of tomb no. 2. In red is the area in which the fragments of animal bones were found.

that is situated between the archaeological and anthropological work, explores all elements found in the burial site, setting as its main objective the understanding of the time and moment of the funeral, while also reconstructing the various stages created by mankind that affected its conservation.

An important aspect in the study of the grave number 2 of St. Michael's Church in Mornago[3] was precisely this expertise in taphonomic anthropology, due to the fact that the identification of animal bone fragments among the biological remains led to the hypothesis that this was a particular funeral ritual from ancient Longobard tradition. The opportunity came in 1998 when, during some restoration work that involved the removal of the church's flooring, a series of burials from two architectural phases prior to the current building came to light (Figure 1).

The evidence from the foundation put a chronological frame of the first architectural phase around the 7th century and the second between the 10th and 13th century. Tomb number 2 immediately sparked the curiosity of archaeologists, as it was in a privileged position within the room. Rectangular in shape, tapering towards the feet, the structure was characterized by slabs of gneiss with plastered interior walls. Since these first observations, the archaeologist has speculated that the body had not been buried in a wooden coffin, but rather was simply wrapped in a cloth shroud[4].

The position of the remains at the time of recovery showed that the corpse had been originally placed in a supine position, with his arms outstretched along his side. Few bone animal fragments were placed at the height of the thorax (Figure 2)[5]. Diagnostic studies of the species identified the animal bones as those of a bird, in particular the fragments of the sternum and a wing bone. After these initial studies, we lead anthropological investigations identifying the skeletal remains of the person who had been entombed[6]. Fortunately, the skeleton appeared quite complete; the skull and post-cranial skeleton offered numerous bone segments, some perfectly intact, with others damaged by *post mortem* events[7].

The identification procedure carried out on the skeleton of Mornago allowed for the identification of key and salient aspects. After the initial evaluation of anthropometric indices, the study moved on to the examination to define race, sex, age at death and stature.

The calculation of cranial indices revealed a mesocranial form (cephalic index 78.4), a slightly convex face (front index 80.8), an orthognathic profile (Gnathic index 87.0), cameconch orbits (74.4) and a leptorrhine nose (46.5). The post-cranial indices highlighted

[3] BINAGHI LEVA 1998, 170–172.

[4] CANTINO WATAGHIN 1998, 89.

[5] SASSI, ALBERICI 2001, 83–89.

[6] LICATA 2012, 234–246.

[7] LICATA *et alii* 2014, 457–459.

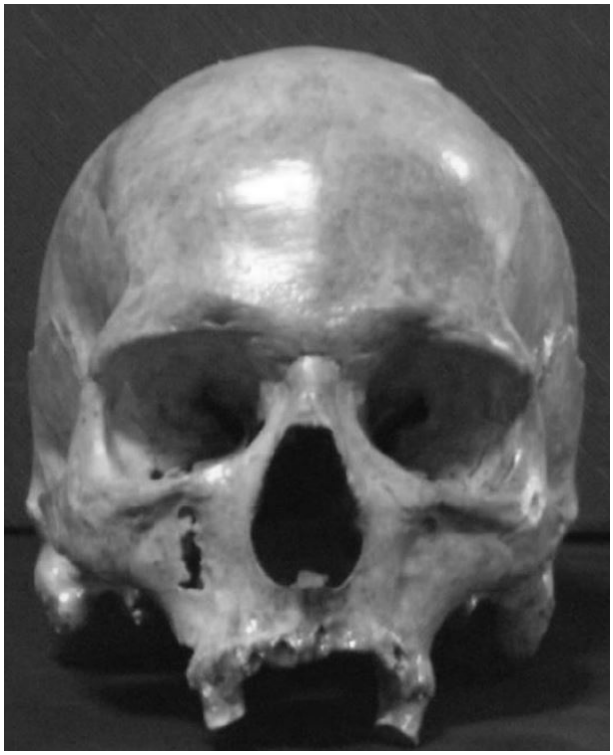

Figure 3. Lateral view of the skull of tomb 2.

Figure 4. X-ray of fibulae of tomb 2.

some muscle weakness found on the humerus and tibia (Diaphyseal right shoulder index: 82.0 = Euribrachia; Diaphyseal left humerus index: 84.0 = euribrachia; Cnemic left tibia index: 89.0 = Euricnemia), while both femurs showed a greater force of the thigh muscles (right pilastric index: 129.0 = strong; left pilastric index: 111.0 = average).

The results obtained from the calculation of the diaphyseal indices of the humeri highlighted a lack of uniformity that shows a greater use of the right upper limb compared to the other side. Gender diagnosis was only possible on observing the dimorphic features of the skull: well-pronounced glabella, very large and round mastoid process, round and flat nuchal, tall and strong zygomatic process (Figure 3), due to the fact that the remains of the pelvis were severely compromised.

The observation of changes in the pubic symphysis and the surface of the ileum allowed for the identification of age at death to be certainly greater than 30 years old. The closure of cranial sutures and the sternal surface of the fourth rib confirmed the mentioned data. Investigations continued with a dental exam that identified lower bilateral edentulia, behind the premolars; alveolar processes were in fact completely reabsorbed and this shows that the loss of these teeth may have occurred at least ten years before death.

The study of the masticatory apparatus of this skeleton was particularly interesting for the presence of a marked anomaly of the occlusion. Characteristics of this malocclusion were maxillary bone growth restriction, both in the sagittal and transverse portion, along with the presence of a well-preserved front too thing. Thanks to the good conservation of the axial skeleton, the estimation of stature reported at between about 170 cm and 175 cm.

Based on the macroscopic survey of the segments of the skeleton, there was a clear and evident anomaly regarding both fibulas and pelvis. These areas showed irregular shapes with an extremely uneven surface. In order to properly examine this important alteration, the bones were subjected to radiological investigations[8], and this report highlighted a bilateral symmetrical hyperostosis of the fibulas (Figure 4), and hyperostosis of the left iliac wing and the both ischial tuberosity. Therefore, we are dealing with pathological alterations with considerable ossification of the periosteum and they were generally considered a result of inflammation in response to different stimuli: infections, tumours, trauma, etc. It is not unusual to find in ostaeo-archaeological material these types of pathological lesions, however in our case the fact of that we had found clear periostitis on the fibulas as well as the pelvis, yet not on any other segment of the skeleton, could open up interesting discussions regarding a different diagnosis[9].

The Mornago skeleton, much like the majority burial sites, shows the importance of the anthropological approach in the field, due to the fact that it allows, before the identification

[8] LICATA *et alii* 2016, 323–331.

[9] LICATA, PALMIERI 2014, 101–106.

study, for the identification of all the acts carried out by those involved in the burial around the body from the moment of burial until the discovery of the remains during archaeological excavations. By making a distinction between the remains—organic or material—regarding natural events and those aspects that regard burial rituals, we can understand how the burial was carried out, and therefore the funerary ritual. The burial represents a place where there is a convergence of something biological and the culture of that time and place, which in our case the remains of a bird led to a hypothesis of the role that the animal might have had. The type tomb, with the funeral objects and the architectural context of the other structures of the church, suggested membership to burials of the Longobard culture[10]. In particular, the tapered shape of the niche is typical of the 7th–8th centuries and the deposition of a bird inside the tomb invokes a common custom in Longobard burials. Lastly, the whorl was also buried along with the corpse in the Gothic Era, although it is also found in Longobard burials or, at the latest, Carolingian burials[11].

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[10] Funeral habits similar have been found in other Longobard necropolis, as in Castel Trosino. MENGARELLI 1902, 200; as in Arsago Seprio. PASSI PITCHER 1984, 11.

[11] AHMUDA SILVIA 1990, 446.

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