

# The identification of the body of Carlo Girolamo I Della Porta (1635-1704)

*Omar Larentis*

Centre of Research in Osteoarchaeology and Paleopathology, Department of Biotechnology and Life Sciences, University of Insubria, Italy.

**Abstract.** The Della Porta family is a noble family that settled in Valcuvia starting in the 16th century, building Villa Della Porta Bozzolo, one of the most prestigious residences in the area. Historical sources report that some members of the family were buried in the church of Sant'Eusebio and Antonio in Azzio, which was part of the Franciscan convent of Santa Maria degli Angeli, whose economic interests were cared for by the Della Porta family. Between 2021 and 2022, the anthropological research inside the church, and in the presbyterial area allowed to obtain bioarchaeological data referring to the remains of Carlo Girolamo I Della Porta.

**Keywords:** anthropology; paleopathology; taphonomy; Modern Era; Italy

## Introduction

### *The Della Porta family in Valcuvia – Villa Porta Bozzolo*

The presence of this family in Valcuvia (Varese province, Italy) dates to the mid-16th century when in 1547, the noble notary Girolamo Della Porta (circa 1450-1544) purchased a vast land in Casalzuigno to build a noble house near his properties in the nearby Valtravaglia. The house was subsequently expanded and transformed by the successive heirs of the Della Porta family, who permanently settled in Casalzuigno. Alongside their notarial activities, the family also administered the territory and significantly expanded the house and its outbuildings in the 17th century, before completely restructuring it in the 18th century. At that time, Giovan Angelo III Della Porta (1690-1745) married the Milanese countess Isabella Giulini and transformed the villa farmhouse into a luxurious villa di delizia (villa of delight). The architect Antonio Maria Porrani was commissioned to expand the building and enrich the garden, giving the villa a monumental appearance. However, after the death of Giovan Angelo III, a period of economic decline began for the family, which ended only with the arrival of Giuseppe Della Porta. In 1780, Giuseppe formally requested the

noble title from an Austrian court, accompanying the request with gifts and chocolate to ensure a positive outcome. The request was accepted, but the family line died out soon after, as Giuseppe died without heirs in 1817. After the Della Porta family, the villa was sold to the Carpani family, then to the Richini family in 1861, and finally to Senator Camillo Bozzolo in 1877.

### *The Della Porta family between the 16th and 17th centuries*

This contribution does not aim to provide a comprehensive genealogy of the Della Porta family, but rather to discuss the male line of the family before and after the figure of Carlo Girolamo I. Bensperando II Della Porta (1591-1668) was a prominent figure in the family and the last to practice the notarial profession. The probable portrait of Bensperando II Della Porta is preserved at Villa Porta Bozzolo in Casalzuigno (Varese province). The painting, of high quality and executed by the painter Giuliano Pozzobonelli, depicts a man dressed in a black robe with a white collar and a sword, according to a style attributable to the second quarter of the 17th century (Bassani & Cassani, 1994). He was also the father of Gian Angelo Seniore and Carlo Girolamo I Della Porta. Bensperando's eldest son was Gian Angelo Seniore Della Porta (1633-1687), who obtained a degree in law

from Pavia in 1655. The portrait of Gian Angelo Seniore Porta is preserved at Villa Porta Bozzolo in Casalzuigno (Varese province). He died in 1687 without leaving any heirs, and on March 3 of the same year, he drew up a will in which he imposed a primogenital entail on his younger brother Carlo Girolamo I Della Porta (1635–1704) to ensure the legitimate descent of the family. The portrait of Carlo Girolamo I Della Porta is preserved at Villa Porta Bozzolo in Casalzuigno (Varese province). This portrait was executed on January 24, 1704, by Carlo Pusterla, the day before the nobleman's death. Carlo Girolamo I Della Porta married and had a son, Giovan Angelo III Della Porta (1690–1745). The probable portrait of Giovan Angelo III Della Porta is preserved at Villa Della Porta Bozzolo in Casalzuigno (Varese province). The painting depicts a man dressed in the fashion of the second quarter of the 18th century, and although the face has suffered damage that limits its readability, it is possible to hypothesize the man portrayed.

#### *The Della Porta burial chamber in the Church of Azzio*

The Church of Azzio has been the burial place of numerous individuals since 1608 (Fig. 1), the year in which the Franciscans arrived and expanded the religious complex. The building continues to be a place of burial for the inhabitants of Azzio, who already used the previous church of Sant'Eusebio as a cemetery (Tamborini, 2009) To this day, five stone slabs in the nave indicate the presence of as many hypogeal burial chambers, used by Franciscans and laypeople from various social backgrounds (Tamborini, 2009; Larentis & Calderoni, 2023). In the presbytery area, there are two slabs that close two hypogea, one is the *putridarium* of the Franciscans (Larentis et al., 2020), the other that of Carlo Girolamo I Della Porta, as evidenced by the epitaph:

D.O.M. / NOBILIUM DE PORTA  
EXUVIAE MORTALES  
HANC SECUNDAM DOMUM  
TERTIAM SPERANS GLORIOSAM.  
CAROLUS HIERONYMUS JUR. CONSULTUS,  
AC HUIUS SACRI CAENOBII  
SINDICUS APOSTOLICUS  
SIBI, POSTERISQUE SUIS

PARAVIT.  
ANNO REDEMPTAE SALUTIS  
MDCCII

The Della Porta family's affectionate relationship with the Church of Azzio appears to have been long-standing, as evidenced by the sources. Other members of the family are also believed to be buried inside the church, and the family's efforts to decorate the building continued even after the construction of Carlo Girolamo I Della Porta's burial chamber in 1702. In 1724, for example, the Della Porta family financed the fresco decoration of the chapel of St. Anthony, which finds stylistic references with the decoration of Villa Della Porta Bozzolo.



**Figure 1.** Above the physical map of Europe, there is a white rectangle highlighting the country of Italy. In the lower left section, the region of Lombardy is highlighted in red within Italy. Towards the bottom right, the Azzio site is situated within the Valcuvia, a pre-alpine valley located in north-western Lombardy that connects Lake Maggiore and the transalpine region. From Larentis & Calderoni, 2022.

## Materials and Methods

The work conducted between 2021 and 2022 involved the reopening of the burial chamber of Carlo Girolamo I Della Porta to scientifically investigate the burial environment and the skeletal remains therein.

The skeletal remains were in a poor state of preservation and representation, although most of the anatomical regions had become skeletonized, some bones still retained portions of partially mummified soft tissue. The bones were inspected macroscopically with the naked eye and using a magnifying glass. Anthropological methods utilized metric variables of the femoral head (Purkait, 2003) and pelvis for sex determination (Bruzek *et al.*, 2017). Skeletal age was estimated from the phase of the fourth rib (Iscan, Loth & Wright, 1984; Iscan, Loth & Wright, 1985), the auricular surface (Lovejoy *et al.*, 1985), and the pubic symphysis (Brooks & Suchey, 1990). Individuals were attributed to the following age groups: adult (20–40 years), mature (40–60 years), and senile (> 60 years). Paleopathological evaluation also performed following specific literature (Buikstra, 2019). Furthermore, the degree of osteophytosis of the insertions and origins of muscles and ligaments were assessed to verify and quantify the use of the main joints (Henderson *et al.*, 2016) and to hypothesize the activities carried out by the subjects (Larentis, 2017).

### *Ethical Statement*

The ethical considerations surrounding the analysis of archaeological human remains are of paramount importance. In this study, it is essential to address the ethical aspects associated with the investigation. It should be noted that the information provided here is based on general ethical principles and considerations, as the specific ethical guidelines and regulations may vary across different jurisdictions and contexts. In accordance with the current Italian legislation, an ethics committee's opinion is not mandatory for the analysis of archaeological human remains. However, it is crucial to emphasize that ethical responsibilities should still be upheld throughout the research process. Therefore, the study obtained formal authorization from the Lombard Heritage Superintendence (Soprintendenza Archeologia Belle Arti e Paesaggio), which oversees the preserva-

tion and management of cultural heritage in the region.

To ensure the integrity and preservation of the human remains for potential future studies, all analyses conducted in this research were non-destructive. This approach reflects a commitment to maintaining the respect and dignity of the individuals represented by the remains. Non-destructive analyses involve employing techniques and methods that do not cause irreversible damage or alter the original condition of the remains. This approach aligns with the principle of preserving the archaeological material for present and future generations. In performing the analyses, the research team adhered to the guidelines and indications provided by authoritative institutions such as the Central Institute for Archaeology (ICA – Istituto Centrale per l'Archeologia) and the Central Institute for Cataloging and Documentation (ICCD – Istituto Centrale per il Catalogo e la Documentazione). These organizations offer expertise and recommendations on best practices for the study and documentation of archaeological materials, including human remains. Following these guidelines ensures that the research is conducted in a responsible and informed manner, considering the broader professional standards in the field. Furthermore, the research team considered the suggestions provided by Squires, Roberts, and Marquez-Grant (2022) in relation to ethical considerations and the study of human remains. These suggestions likely encompass a range of topics, including the respectful treatment of remains, the importance of informed consent, the engagement of relevant stakeholders, and the dissemination of research findings with appropriate sensitivity.

While the ethical framework outlined in this statement provides a foundation for responsible research practices, it is crucial to acknowledge that ethical considerations are multifaceted and subject to ongoing discussion and development. Therefore, it is important for researchers and institutions to engage in continuous reflection and dialogue concerning the ethical implications of their work.

## Results

On September 20th, 2021, the covering slab of the Della Porta family tomb was removed, allowing data to be acquired from the context and human remains.

### *Environmental inspection*

The burial chamber, situated in the presbytery area to the right of the main altar and the Franciscan crypt, provides valuable insights into the physical layout and architectural features of the space. Access to the burial chamber is gained through a set of steep masonry stairs, indicating the intentional placement and seclusion of the burial area within the church (Fig. 2a). Once inside the chamber, it becomes evident that it is designed as a sub-rectangular space running along the longitudinal axis of the church (Fig. 2b). The chamber features a vaulted ceiling and is finished with fine mortar, displaying the skillful craftsmanship employed in its construction. The walls of the chamber are adorned with a rough whitewash of white paint, possibly signifying a desire for cleanliness and uniformity within the burial space (Fig. 2a-d). Notably, on the back wall of the chamber, directly in front of the access stairs, a painting of a cross is prominently situated (Fig. 2d). This cross serves as a symbolic and religious element, adding to the sacredness and significance of the burial site. Along the unobstructed perimeter walls, three masonry steps, approximately 50 cm high and 40 cm wide, are present. These steps are covered with schist slabs, creating a raised platform for the positioning of three wooden coffins (Fig. 2b-d). The deliberate construction of these steps suggests a desire to elevate and display the coffins, potentially as a means of honoring and respecting the individuals interred within them.

Examining the individual coffins within the burial chamber provides further insights into their condition and characteristics. Starting with the burial chamber of Carlo Girolamo I Della Porta (Fig. 2), access to this specific chamber is also gained through a steep masonry staircase (Fig. 2a). Notably, the chamber was found to have been completely repainted with white quicklime, possibly as a part of the sanitization process following the deposition of the other individuals. The coffins within this chamber rest on high masonry steps, topped by schist slabs (Fig. 2b). Upon closer examination, it becomes apparent that the coffin on the right (Fig. 2c) has sustained severe damage, compromising its structural integrity. The cause of this damage could be attributed to natural decay, external forces, or deliberate actions. On the back wall of the chamber, another

coffin is observed, adorned with a painted cross on the layer of whitewash (Fig. 2d). This detail indicates the significance and religious symbolism associated with this specific individual's burial. The coffin on the left side of the chamber bears the inscription of the date 1711 on its short side (Figure 2e). Positioned on a stone step, this coffin remains undamaged, unlike the others. However, it was discovered to be open, just like all the other coffins in the chamber (Figure 2f). Inside, the coffin contains poorly preserved human remains (Fig. 2g) and other metallic alloy elements, possibly



**Figure 2.** Burial chamber of Carlo Girolamo I Della Porta. a) the entrance stairs have been painted with a layer of quicklime as have all the walls of the hypogeum; b) the stone step on which the coffin on the right rests; c) the coffin on the right has sustained severe damage that has compromised its integrity; d) the coffin at the back of the chamber is surmounted by a painted cross on the layer of whitewash; e) the coffin on the left bears the date 1711 inscribed on the short side; f) the coffin on the left, also resting on a stone step, is undamaged but was found open, like all the other coffins; g) poorly preserved remains inside the coffin on the left, as well as other metallic alloy elements containing copper.

containing copper. The second coffin is placed against the wall in front of the access stairs, while the third coffin, although poorly preserved in its original structure, is located to the left upon entering the chamber. Despite its deteriorated condition, this coffin provides some valuable insights into its construction, such as the nails used to close the lid and the remnants of probable organic fiber straps that once served as handles for lifting and transporting the coffin.

In summary, the environmental inspection of the burial chamber reveals significant details about its location, architectural features, and the deliberate placement and arrangement of the coffins. The presence of symbolic elements and the meticulous craftsmanship employed in the chamber's construction speak to the importance and reverence associated with the burial site. The sub-rectangular layout, vaulted ceiling, and whitewashed walls contribute to the overall aesthetic and atmosphere of the chamber.

The masonry steps, adorned with schist slabs, highlight the intention to elevate and showcase the wooden coffins. The placement of each coffin against a different perimeter wall suggests a deliberate arrangement, potentially reflecting the social status or familial connections of the individuals interred within. Examining the specific burial chamber of Carlo Girolamo I Della Porta provides additional insights. The repainting of the chamber with white quicklime indicates a conscious effort to sanitize the hypogeum following the deposition of other individuals. This attention to cleanliness and preservation reflects the cultural practices and beliefs surrounding death and afterlife. The damaged coffin on the right side of the chamber raises questions about its history and the events that led to its compromised state. The presence of severe damage invites speculation regarding possible external forces or intentional actions that may have affected the coffin over time. Conversely, the intact coffin on the left, inscribed with the date 1711, showcases the durability of its construction, providing a glimpse into the past and serving as a testament to the craftsmanship of the period. The discovery of open coffins within the chamber, including the one bearing poorly preserved human remains, raises intriguing possibilities. It suggests that at some point, the coffins were accessed and potentially disturbed. The reasons behind this disturbance

could range from anthropic actions aimed at removing clothing or accessories, to past efforts of grave robbery or vandalism. The fragmented and disordered state of the bones further supports the likelihood of human interference, as does the presence of certain elements that hint at the possible existence of clothing or other items. The environmental inspection of the burial chamber offers a window into the physical aspects and conditions of the site. It reveals a carefully constructed space, adorned with symbolic and religious elements, while also presenting evidence of damage and disturbance. These observations provide a foundation for further investigation and analysis, enabling researchers to delve deeper into the historical, cultural, and anthropological significance of the individuals interred within the chamber. By combining environmental findings with anthropological and archaeological studies, a more comprehensive understanding of the burial practices, social dynamics, and cultural beliefs of the period can be achieved.

#### *Anthropological Inspection*

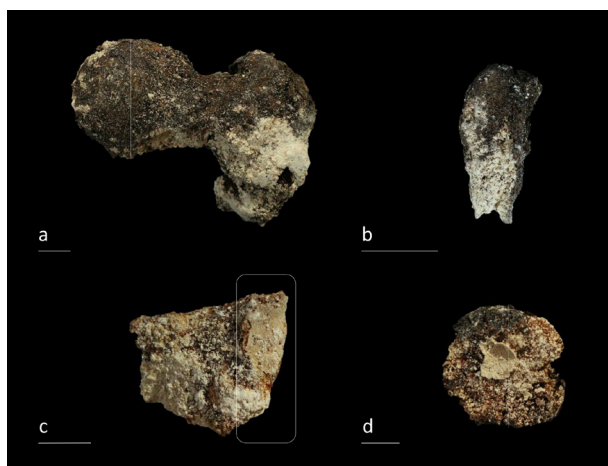
All the coffins examined in the study contain skeletal remains, with some cases showing poorly preserved mummified tissue, limiting their potential for anthropological study (Fig. 2a, c, g). However, preliminary analysis has been conducted. The coffin located in front of the access staircase contains the remains of a single individual, most likely male, as indicated by the evaluation of certain diagnostic morphological characteristics (Fig. 3a, b).

Considering this burial as a single deposition, it is possible to exclude the presence of double burials or the reuse of the same coffin for the sequential deposition of multiple individuals based on the number of remains. Another man is buried in the coffin on the right, while an old woman is deposited in the coffin dated to 1711 (Fig. 4a, c), and several vertebral hernias have been observed (Figure 4 b). This case is significant in examining the presence of certain taphonomic phenomena related to the context, such as the presence of adipocere (Fig. 4c, d, e).

Adipocere, also known as "grave wax", is a hydrophobic, soap-like substance that forms through saponification in deceased human or animal remains

(Janaway & Percival, 2012). Saponification occurs when the body's natural fats react with alkaline substances, such as those found in soil or water (Clark, 2016). Adipocere formation tends to occur more frequently in regions of the body with high lipid content, such as the buttocks, breasts, and thighs in human mummified remains (Krompecher & Auer, 2011). This transformation is typically observed in cadavers that have undergone partial or complete dehydration and are thus more susceptible to the saponification process (Janaway & Percival, 2012).

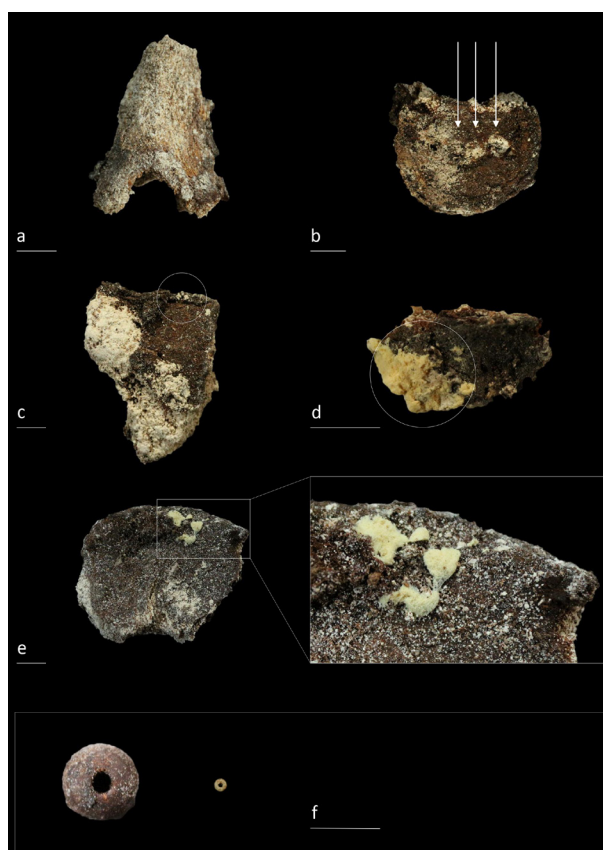
The preservation state of bones is also an indicator of chemical and physical processes affecting the bone tissue, for example, the presence of nitrates (Fig.3, 4). Nitrates play a crucial role in the taphonomic processes affecting human bones in contemporary archaeological contexts. These compounds can originate from various sources, including fertilizers, animal waste, and human sewage, and can be introduced into the soil through anthropogenic activities such as agriculture and urbanization. When nitrates are present in the soil, they can contribute to the process of bone mineralization, which involves replacing organic bone material with mineral substances. This process can lead to the formation of secondary minerals within the bone, such as calcium carbonate and apatite, which can alter the original composition and structure of the bone (Buikstra & Ubelaker, 1994). Furthermore, nitrates can con-



**Figure 3.** Burial chamber of Carlo Girolamo I Della Porta. Coffin at the bottom of the room, femur a) and pubic symphysis b) of Carlo Girolamo I Della Porta; coffin on the right, pubic symphysis c) and head of the radius d) of the subject. The horizontal bars are the metric scale of 1 cm

tribute to the formation of nitrate films on the surface of bones, which can affect their preservation and visibility. These films can act as a barrier to microbial activity, inhibiting the natural decay of the bone and contributing to its long-term preservation (Hansen, 2001).

Overall, the presence of nitrates in the soil can have both positive and negative effects on the taphonomy and preservation of human bones in modern archaeological contexts. While they can contribute to the process of bone mineralization and inhibit microbial activity, they can also alter the original composition and structure of the bone and affect its visibility and interpretation. Finally, in all the coffins examined, the bones do not follow the expected anatomical order.



**Figure 4.** Burial chamber of Carlo Girolamo I Della Porta. Coffin of the female subject found on the right, a) humerus and b) lumbar vertebrae with Schmorl's nodes (arrows); pubic symphysis with adipocere (white circle); d) bone fragment with adipocere (white circle); e) iliac crest fragment with adipocere, with a macro on the right; f) wooden (left) and bone (right) rosary beads found mixed with the subject's bones.

This, combined with the high fragmentation of the remains and the discovery of open or damaged coffins, is most likely the result of anthropic actions of bone disturbance aimed at removing clothing or accessories, whose presence can still be inferred from certain elements (Figg. 2g; 4f).

## Discussions and Conclusions

The extensive investigation of the burial chamber of Carlo Girolamo I Della Porta in the Church of Azzio has not only provided valuable insights into the Della Porta family and their relationship with the church but also opened avenues for broader discussions and conclusions regarding historical, cultural, and archaeological aspects.

The presence of multiple individuals interred within the hypogeum raises questions about the familial connections and social status of the Della Porta family. Further research and genealogical studies could shed light on the identities of the individuals buried alongside Carlo Girolamo I Della Porta, potentially unraveling intricate family dynamics and relationships.

The discovery of a male, an older woman, and possibly Carlo Girolamo I Della Porta's wife within the burial chamber offer glimpses into the family structure and dynamics. By examining the remains, researchers may be able to infer more about the age, health conditions, and potential causes of death of these individuals, providing a deeper understanding of their lives and the social context in which they lived.

The anthropological analysis of the skeletal remains not only provides insights into the individual identities but also contributes to our understanding of broader historical and demographic patterns. By comparing these findings with other contemporary burial sites in the region, it becomes possible to discern trends in burial practices, social stratification, and mortality patterns during the time. Such comparative analyses can help paint a more comprehensive picture of the society and culture of Valcuvia during the era.

The taphonomic observations and the presence of adipocere and nitrates offer valuable information about the burial environment and preservation conditions. These findings can be further analyzed to gain

insights into the mortuary rituals, funerary customs, and techniques employed by the Della Porta family and their contemporaries. Additionally, understanding the factors that influenced the decomposition and preservation of the remains contributes to our knowledge of burial site formation processes and the long-term fate of skeletal remains.

Beyond the specific case of the Della Porta family, the study highlights the importance of interdisciplinary collaboration in archaeological and anthropological research. By integrating historical records, genealogical studies, archaeological excavations, anthropological analyses, and environmental investigations, a more comprehensive and nuanced understanding of the past can be achieved. This multidisciplinary approach is crucial in unraveling the complexities of historical sites, deciphering the lives of individuals and families, and reconstructing the cultural and social dynamics of bygone eras.

In conclusion, the study of the burial chamber of Carlo Girolamo I Della Porta in the Church of Azzio has provided significant insights into the Della Porta family, their burial practices, and their connection to the Church of Azzio. It has also opened broader discussions about familial relationships, social dynamics, mortuary rituals, and historical context. The findings from this investigation serve as a valuable contribution to the fields of archaeology, anthropology, and historical research, shedding light on the lives of individuals from the past and enriching our understanding of the cultural fabric of Valcuvia in the relevant time period.

## Acknowledgements

We thank the Cariplo Foundation and the Varesotto Community Foundation for the financial support, Dr Daniela Patrizia Locatelli and Barbara Grassi of the Soprintendenza Archeologia Belle Arti e Paesaggio per le province di Como, Lecco, Monza-Brianza, Pavia, Sondrio and Varese for the support and the study authorizations, the parish of Azzio and the Diocese of Como for support, and Dr Marta Licata as project manager.

## References

1. Bassani P., & Cassani P. (1994). *Interni lombardi del Settecento: Villa Porta-Bozzolo a Casalzuigno*. Guerini Studio.

2. Tamborini, M. (2017). La chiesa e il Convento di Azzio – Studi e aggiornamenti. Società Storica Varesina.
3. Clark, M. A. (2016). Forensic investigation of human remains archaeological and forensic perspectives. Routledge.
4. Janaway, R. C., & Percival, S. L. (2012). Decomposition of human remains. In *Forensic Ecology Handbook* (pp. 33–56). John Wiley & Sons.
5. Krompecher, T., & Auer, R. N. (2011). Adipocere formation in the brain: a case report and review of the literature. *Forensic Science, Medicine, and Pathology*, 7(3), 259–264.
6. Spitz, W. U., & Spitz, D. J. (2006). *Spitz and Fisher's medicolegal investigation of death: guidelines for the application of pathology to crime investigation* (4th ed.). Charles C Thomas.
7. Buikstra, J. E., & Ubelaker, D. H. (1994). Standards for data collection from human skeletal remains: Proceedings of a seminar at the Field Museum of Natural History (Vol. 44). Arkansas Archeological Survey.
8. Hansen, C. J. (2001). The nitrate film: A barrier to microbial attack. *Journal of Archaeological Science*, 28(9), 989–995.
9. Larentis O, & Calderoni M. (2023). Peasants, nobles and religious. Mortuary archaeology in the church of SS. Eusebio and Antonio of Azzio, Varese (Northwest Italy). *Journal of Bioarchaeological Research*
10. Larentis, O., Tonina, E., Tesi, C., Rossetti, C., Gorini, I., Ciliberti, R., & Licata, M. (2020). A probable case of subligamentous tuberculous spondylitis: the concealed body of the late modern period (early 16th century to early 20th century), franciscan crypt of st. Anthony and st. Eusebius church, lombardy, italy. *International Journal of Osteoarchaeology*, 30(2), 180–196.
11. Larentis, O. (2017). San Martino di Lundo (Trento) Grave 1. Case study of an individual introducing possibilities markers of horse riding. *Medicina Historica*, 1(2), 103–110. <https://mattio-li1885journals.com/index.php/MedHistor/article/view/6380>
12. Henderson, C. Y., Mariotti, V., Panykucera, D., Villotte, S., & Wilczak, C. (2016). The new 'Coimbra method': a biologically appropriate method for recording specific features of fibrocartilaginous enthesal changes. *International Journal of Osteoarchaeology*, 26, 925–932. <https://doi.org/10.1002/oa.2477>
13. Purkait, R. (2003). Sex determination from femoral head measurements: a new approach. *Legal Medicine*, 5(1), 347–350. [https://doi.org/10.1016/S1344-6223\(02\)00169-4](https://doi.org/10.1016/S1344-6223(02)00169-4)
14. Bruzek, J., Santos, F., Detailly, B., Murail, P., & Cunha, E. (2017). Validation and reliability of the sex estimation of the human os coxae using freely available dsp2 software for bioarchaeology and forensic anthropology. *American Journal of Physical Anthropology*, 164(2), 440–449. <https://doi.org/10.1002/ajpa.23282>
15. Iscan, M. Y., Loth, S.R., & Wright, R.K. (1984). Age estimation from the rib by phase analysis: white males. *Journal of Forensic Science*, 29(4), 1094–1104.
16. Iscan, M. Y., Loth, S.R., & Wright, R. K. (1985). Age estimation from the rib by phase analysis: white females. *Journal of Forensic Science*, 30(3), 853–863.
17. Lovejoy, C. O., Meindl, R. S., Pryzbeck, T. R., & Mensforth, R. P. (1985) Chronological metamorphosis of the auricular surface of the ilium: a new method for the determination of adult skeletal age at death. *American Journal of Physical Anthropology*, 68, 15–28. <https://doi.org/10.1002/ajpa.1330680103>
18. Brooks, S., & Suchey, J.M. (1990). Skeletal age determination based on the os pubis: a comparison of the Acsádi-Nemeskéri and Suchey-Brooks methods. *Human Evolution*, 5, 227–238. <https://doi.org/10.1007/BF02437238>
19. Buikstra, J. (2019). *Ortner's identification of pathological conditions in human skeletal remains*. Cambridge Press.
20. Lovell, N. C. (1997). Trauma analysis in paleopathology. *American Journal of Physical Anthropology*, 105(25), 139–170. [https://doi.org/10.1002/\(SICI\)1096-8644\(1997\)25<139:AID-AJPA6>3.0.CO;2-%23](https://doi.org/10.1002/(SICI)1096-8644(1997)25<139:AID-AJPA6>3.0.CO;2-%23)
21. Squires, K, Roberts, C. A., & Marquez-Grant, N. (2022). Ethical considerations and publishing in human bioarchaeology. *American Journal of Physical Anthropology*, 177(4), 615–619. <https://doi.org/10.1002/ajpa.24467>

---

**Correspondence:**

Omar Larentis

Centre of Research in Osteoarchaeology and Paleopathology, Department of Biotechnology and Life Sciences, University of Insubria, Italy

Email: [omar.larentis@uninsubria.it](mailto:omar.larentis@uninsubria.it)