

Voices from the cloister. Bioarchaeology of a modern Nunnery

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Abstract: *Aim.* In this paper, we present a summary of the Bioarchaeological analyses carried out in the church of SS. Annunziata of Valenza, Alessandria, between 2020 and 2021. *Material and Methods:* The Church harbors a crypt dated to the 18th century with 29 burial cells. Here, the Augustinian nuns of the nearby cloistered convent received a particular type of inhumation. The nuns were deposited inside the crypt in a sitting position, on a step inside a cell. The corpses were supported by a stick placed at the level of the bust; The skeletal remains of the nuns underwent an extensive anthropological-palaeopathological analysis. *Results and Discussion:* The analysis confirmed that all the skeletons belonged to female individuals, by their monastic context. The taphonomic analysis confirmed that the nuns were seated inside burial cells within the crypt. The age distribution at death showed a higher proportion of individuals aged 50 to 60 or older. The findings provide insights into the health and living conditions of the nuns. *Conclusion:* This study sheds light on these women's living conditions and health status in the 18th century. The findings contribute to understanding the unique social and gender dynamics within female monasteries and their impact on the physical well-being of the individuals. This research expands our knowledge of the history of female monasticism in Piedmont and emphasizes the importance of studying small elite groups to comprehensively understand historical society.

Keywords: Female monastic population, burial ritual, convent, putridarium, double burial

Introduction

Female monasteries were important parts of society during the late Middle Ages and Early Modern times. Half the population in Catholic monasteries were women; in some cases, even three-quarters were women (Sarkic, 2018). In Piedmont, around the middle of the eighteenth century, 146 monasteries were distributed in 61 localities, associated with twelve different orders, including various observances and tertiaries (Lurgo, 2017). Nuns lived in communities under vows of poverty, chastity, and obedience, dedicating their time to prayer, contemplation, and physical and intellectual work. The imposition of the enclosure has not prevented cultural productions and forms of sociality in which female individuals have been able to express themselves. Cloister's life was part of the religious identity of nuns for some regular orders. Cultural

activities aimed at spiritual edification can lead one to believe that monasteries were places where women can express themselves freely. This is not the case; monasteries remain above all places of segregation. The continuous admonitions of the ecclesiastical authorities and the increasingly severe disciplinary and architectural measures adopted to preserve the cloistered institution demonstrate how the latter was struggling to establish itself uniformly in local society. Resistance was particularly strong in small towns, where regular institutes were configured as fragments of ecclesiastical power, competing with the diocesan clergy (Lurgo, 2017). Despite their significant presence, the role of nuns and female monasteries is often given only a few pages in the general histories of the Church (Sarkic, 2018). American historiography has helped recognize women's monasteries' significant role in various cultural spheres, from medicine to artistic, musical, and

literary production. The history of female religious orders has undergone significant development since the beginning of the 20th century, largely due to the emergence of so-called *women's studies*, which emphasized monasteries' economic and social role in the medieval period (Eckstein, 1896). Since the 1980s, research on the educational activities of nuns, especially during the Renaissance period, has also multiplied. Studies on monastic writings, from poetry to hagiography to chronicles, have undergone significant development, starting in Italy (Culpepper, 2005). Unfortunately, as far as the history of the Piedmontese monasteries is concerned, a comprehensive study of female monasticism in the modern age is completely missing, the history of the individual monasteries remains entrusted to the historiographical production internal to the orders, limited to local research (Gilardi, 2005).

The small historiographical space reserved for regular female institutes in Piedmont is linked to the peculiar situation of female monastic history in the Savoyard state. Modern-age monasticism does not seem to have left any important traces. The cultural production of the Savoy monasteries has not yet been studied well enough (Lurgo, 2017).

Modern-age nuns were the only women able to live an independent life and obtain an education, which was otherwise impossible for even the highest-class women. Several of the most significant female poets, writers, painters, philosophers, and composers lived behind convent walls. Also, female monasteries were unique because they were run by women and let them make their own decisions about administration, paperwork, and finances (Sarkic, 2018).

This study aimed to examine the skeletal remains of 29 nuns who were recuperated in the church of SS Annunziata di Valenza (Alessandria province, northern Italy) in 2019 and dated to the 18th century (Fusco & Tesi, 2019). The anthropological study aimed to verify that the osteological remains belonged to female individuals, and to confirm if the crypt was exclusively dedicated to the deposition of the convent's nuns. Sometimes, other categories of individuals could find a place inside the cemetery devoted to the sisters (Sarkic, 2018). Bioarchaeological studies focused on monastic populations allow us to point out the living conditions of the nuns, analysing the similarities and

differences between the religious and the secular communities, to answer questions concerning the everyday life of the sisters compared to that of the laywomen (Sarkic, 2017). In particular, the questions are directed at their rules, the kind of working activities performed, and the division of labor. Specifically, the osteological study of human remains allows the recording of the changes to the bones and the eventual traumas or fractures present, related to the tasks that the individuals repeated and the workload they were subjected to.

Moreover, the application of paleopathological investigations can provide an overview of the diseases they suffered from and the stressors they were exposed to, to analyse in depth the relationship between their life expectancy, morbidity, their nutrition, and health status.

The demographic data can then be compared to those of a secular population of the same period, allowing us to get an overview of the mortality rate of a religious context and the differences it presents with the not-devoted people. The study of a female sample usually dialogues with the high mortality rate of the maternal and fertile period, but in this case, the nuns did not have children, or they were supposed not to have. In normal populations of the past, the mortality of the female portion reaches the highest rate in their major fertility period (Acsádi & Nemeskéri, 1970). In this case, it is assumed that the length of life can somewhat approach a higher age at death.

In summary, an exclusively female sample offers the possibility to enter social and gender studies, allowing us to investigate the life of a community not subjected to the same difficulties to which other women were dependent and therefore obtaining data on the response of the female skeleton to a life different from that imposed by the society of the time (Fusco & Tesi, 2019).

Historical context

According to local historians, the monastery of Annunziata was founded by some maidens who lived together under the invocation of the Virgin Mary Annunziata. Eugenio IV approved the foundation of Valenza in 1431, but the monastery was not perfected until around 1443 (Gasparolo, 1986). It was a special congregation, which placed itself under the rule of St.

Augustine and, approved by Eugenio IV, then founded several other monasteries in Alessandria, Piacenza, Tortona, Pavia, and Voghera.

The seventeenth century was the period of its greatest flourishing, as it owned many farms, cottages, houses, and lands, and the daughters of many important people became nuns at Valenza. There were also benefactors; records report frequent donations, including entire estates (Gasparolo, 1986). The monastery would often thin out during sieges and wars, almost emptying itself, as it did in 1557 when the nuns were reduced to four or five. Still, the general rule was that the monastery was well-inhabited, despite the required dowry of 400 scuds. In an act on March 13, 1576, the nuns amounted to 6. Following this decline, the number increased again; in 1641, there were 40, and in 1643, 45 (Grano, 1987). These nuns included the lay sisters and those who were called supernumerary. They did not include the students, whom we learned from Valenza documents were also many and included the principal families of Valenza and other places.

The first monastery was destroyed during the Franco-Savoyard siege of 1696. Thereafter, the nuns moved to the old hospital, and in July 1699, the first stone of the new church of SS. Annunziata was laid. The new church was divided into two parts: one for the nuns, also known as the inner church, and the other for the public, known as the outer church, communicated with each other through windows with iron bars so that the nuns could attend the functions held in the outer church (Grano, 1987).

The Church of SS. Annunziata has an unusual underground crypt that can be accessed via a trap door on the church floor. This crypt served as the burial ground for the Augustinian nuns, who received a distinctive type of burial (Fusco & Tesi, 2019). The deceased were positioned sat in a burial cell, supported by a wooden stick at the level of their busts. A vase was placed beneath the seat to collect decomposition fluids. Subsequently, the cell was walled up and the burial date was engraved on the sealing mortar (Fusco, 2018). The church was built in 1699, and the hypogeum is thought to have been built around this time. Upon entering the crypt, visitors encounter a small access room measuring 3.90 m. by 2.50 m., with burial cells along the walls. The second room is a long, nar-

row space measuring about 44 m. by 3.20 m, also with cells along the perimeter. This room leads to a third compartment measuring 4.20 m. by 2.47 m., which contains additional tombs (Fig.1). All the cells feature a step, and the nuns were buried while seated on it, held upright by the wooden stick. Later, the body was walled up.

The convent was suppressed in 1802, and the church was entrusted to the Confraternity of San Rocco. After the church of the monastery was closed, the crypt was filled with earth. It was discovered and recleaned in 1973 by members of the Brotherhood of S. Rocco.

Material and methods

Each skeleton was placed inside a burial cell in a sitting position. Along with the skeletal remains, remains of the wooden stick that held the bust, clothes, rosaries, two crucifixes, and two pairs of bronze earrings were found. Soft tissue and hair were only very occasionally present. After the remains were cleaned, an inventory and anthropological documentation were made for each skeleton. Macroscopic observations were performed with the naked eye and with a magnifying glass. All skeletons were in a poor state of repair, highly fragmentary, and brittle due to the humidity of the crypt. Only the teeth survived post-mortem degeneration particularly well. Whenever possible, sex was determined based on the morphological char-



Figure 1. Planimetry of the crypt

acteristics of the os coxae (Phenice, 1969; Acsadi & Nemeskeri, 1970; Bruzek, 2002). Age at death was estimated using degenerative changes of the auricular surface and symphysis pubis (Lovejoy et al., 1985; Brooks & Suchey, 1990), sacrum (Passalacqua, 2009), auricular surface and acetabulum (Rougé-Maillart et al., 2009). Ectocranial suture closure (Meindl & Lovejoy, 1985) and dental wear (Brothwell, 1981; Lovejoy et al., 1985) were also considered. The dental analysis was accurately recorded in the database. Each permanent tooth was examined macroscopically on all visible surfaces. Caries were searched for size using the scale proposed by Lukacs (1989) and the location of the lesion surface by Powell (1985). Antemortem tooth loss was determined by macroscopic observation of bone remodelling. The bone change identified as possible pathologies were compared with the clinical and paleopathological literature (Casillas et al., 1990).

Results and Discussion

Anthropological analyses

Taphonomically, the bones of the skull, trunk, and upper limbs were located on the support surface of the step, while those of the lower limbs and feet were located at the bottom of the niche. This confirms the hypothesis that the nuns were seated inside the cells (Fusco & Tesi, 2019). Due to the poor state of conservation, it was not possible to establish the sex and age of all the skeletons, in no case was it possible to make anthropometric observations. As far as sexual diagnosis is concerned, and as expected, all methods indicate that all skeletons belonged to female individuals. As can be seen in Table 1, the age distribution at death of the 29 adults has a higher proportion among those aged 50 to 60 or older. Not by chance, the presence of four individuals between 15 and 20 years old. The Council of Trent, in the 16th century, established that the minimum age to enter religion was 12 for girls (Bamji, 2016). For young girls, that age was the boundary between childhood and adulthood, so they were henceforth prohibited from spending time outside playing. After entering a monastery, a girl had to spend at least

Table 1: Summary of the features of each burial

Tomb	Year Of		Sex	Age	Pathology
	Burial	Inscription			
1	1799	S.R.B. a 29 agosto	F	30-40	/
2	/	/	F	50-60	/
3	1788	R.G. I	N. R	>60	/
4	1778	SEFC	F	>60	/
5	1793	S.F.R. ebr	F	15-20	/
6	1788	S.T. GV SU GO	F	15-20	/
7	/	/	F	N. R	/
8	1780	SBR	F	50-60	/
9	1786	ATG ISA	F	15-20	/
10	1785	ARC 18 M	F	15-20	/
11	1778	SPCP	N. R	N. R	/
12	1785	SICF	N. R	N. R	/
13	1788	SRGI	F	>60	/
14	177?	SEFC	F	30-40	/
15	1779	SVIC	F	40-50	/
16	N. R	BAC2	F	>60	/
17	1779	N. R	F	50-60	Leiomyoma
18	1776	ST SN	F	30-40	/
19	1779	SRECC	F	30-40	/
20	1772	SBDFI	F	>60	/
21	N. R	N. R	N. R	N. R	/
22	1793	18 genaro S.A.S.C.1793	F	N. R	/
		15 genaro S.G.T. P			
23	1793	P	F	50-60	/
24	1792	22 genro S. A.	F	40-50	/
25	1789	SSAC 9br 21	F	40-50	/
26	1789	S.R 27	F	>60	/
27	N. R	N. R	F	30-40	/
28	N. R	N. R	F	>60	/
29	1788	S. R. T	F	50-60	/

a year as a novice (Bamji, 2016), before taking a vow and becoming a nun, but it often took much longer, in some cases even up to 7 years (Marín, 2009). Of the total sample, only 20 skeletons allowed us to study their teeth, 15 of them had at least one caries. As for the severity of caries, caries of pits and fissures predominate. It became apparent that in this community, the frequency of caries appears to be age-related, with the most affected group being women over the age of 40. As regards the distribution of caries by type of

tooth, although no statistically significant differences were found, the second molar is the most affected. This can be explained by the morphology and size of the molars, as well as their function, which makes them more susceptible to caries (Lopes et al., 2000). Of 20 individuals 10 show evidence to the teeth antemortem loss. As with tooth decay, there is a clear trend for this condition to increase with age. As regards the abscess, the frequency is not high, only two lesions have been diagnosed as an abscess. This female sample is characterized by a high prevalence of caries and antemortem tooth loss. It became clear that prevalence is related to age: they are more common in older adults. Paleopathologically, no trauma was detected, probably due to the condition of the specimen. The only pathology noted was a calcified uterine leiomyoma approximately 5 cm in size between the trunk bones of grave 17. This is the most common type of pelvic tumour, occurring in between 20 and 40% of women in their reproductive years (Casillas et al., 1990). Although benign, it can cause abnormal uterine bleeding, pressure and pain in the pelvic region, and reproductive problems (Stewart, 2001). Like most benign reproductive system tumors, is most often seen in postmenopausal women (Walker & Stewart, 2005; Wilde & Scott-Barrett, 2009). The size of leiomyomas is variable, from 10 mm to more than 20 cm (Walker & Stewart 2005), however, larger masses can degenerate, which can be followed by calcification as in question (Robboy et al., 2000; Wilde & Scott-Barrett, 2009).

Archaeological context

Almost all the tombs bear inscriptions, except for T.2, which was covered by T. 1 and entered through an opening in T.3. The inscriptions in Tomb 3 were unreadable, while those in Tomb 20 were destroyed by human activity over time, leaving only a few rows of bricks. The inscriptions reported the year of burial, sometimes the day and month, which in Christian eschatology is the date that indicates entry into eternity, therefore true birth. After the date, some letters follow, because of the rules of the Order, as a sign of humility, the tombs do not have names, only initials, followed by the letter “S,” which stands for “Sister” (Fig. 2). In some cases, the letter “A” is used instead of the letter “S”

to refer to the abess (Fusco & Tesi, 2019). The years of burial provide us with information on the period of use of the crypt, with the oldest dating to 1722 (T.20) and the most recent to 1779 (T.1). Table 1 shows that the topographical order doesn't match the order of the dates, so the tombs may have been used several times, even though there are no signs of reuse or skeletal elements that belong to multiple people in the same tomb. In Italy, about 80 sites have been surveyed, such as the crypt of Valenza, which can be dated between the 17th and 18th centuries (Fusco, 2018; Licata et al. 2018). These structures, defined as *putridaria*, were a type of architecture aimed at dividing the treatment of the deceased into two distinct phases: the scarification of the corpse followed its final location and can be traced back to double burial practices. The second burial ritual reflects the soul's condition, allowing continuous visibility of the body as it transforms, yielding decomposing flesh and contaminating elements, and bringing the body closer to the complete liberation of the bones. This symbol of purity visually represents the various stages of purification faced by the soul on its journey toward eternity. The process of exhuming and repositioning the remains symbolizes the soul's spiritual journey to the afterlife (Fusco, 2022; Fornaciari et al.

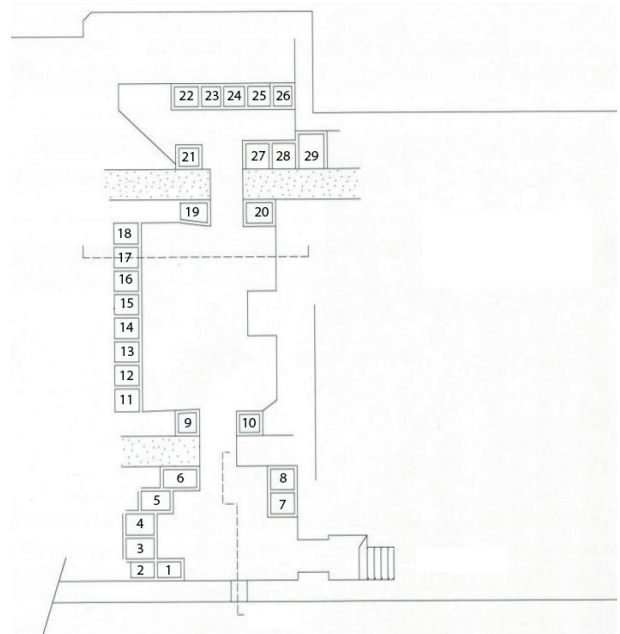


Figure 2. Walled cells along the perimeter of a space of the crypt, opened and showed the remains contained inside them. Above the cells, gravings in the plaster of the wall.

2007). This practice was not limited to a specific religious order, as various congregations such as the Humble, the Franciscans, the Disciplined, the Canons, the Augustinians, and the cloistered nuns used it. The crypt of SS. Annunziata recalls in many ways the sepulchral typology of the *putridaria*. However, this is not a real double burial, as the bodies were walled up and not ritually repositioned. This difference could be attributed to the fact that the Valencian crypt is a more recent case and was built at the end of the 18th century when the sanitation regulations relating to burials were probably already in place. These burials may have represented a compromise between traditional burial practices and the new Enlightenment mentality.

Conclusion

This study has triggered a new series of investigations, underlining the need for further investigations since the sample studied differs greatly from a typical picture of the population of the past. The women of the monastic populations didn't have children, or at least they shouldn't have. Maternal mortality was very high in pre-industrial populations and the highest peak of mortality in women usually corresponded to their most fertile period (Acsádi & Nemeskéri, 1970; Porri, 2016). If most nuns entered monasteries before they were in a childbearing period and followed the vow of chastity, differences in lifespan and general health can be expected, compared to secular women.

In the future, the results obtained can be compared with the secular female population of the same period and region to determine how their lifestyles differed.

While we can't claim to have a complete understanding of the whole picture, we were able to glimpse behind the walls of the monastery.

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