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Philippe Blanchard, Jérôme Livet, Valentina Di Stefano. Archaeological Interventions in Medieval Jewish Cemeteries in Western Europe. *Fasciculi Archaeologiae Historicae*, 2023, Studies of Jewish Archaeology of Medieval and Post-medieval Europe, 36, pp.7-27. 10.23858/FAH36/2023.001 . hal-04570440

**HAL Id: hal-04570440**

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Submitted on 7 May 2024

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PHILIPPE BLANCHARD\*, JÉRÔME LIVET\*\*, VALENTINA DI STEFANO\*\*\*

ARCHAEOLOGICAL INTERVENTIONS  
IN MEDIEVAL JEWISH CEMETERIES IN WESTERN EUROPE**Abstract**

This article presents the main Jewish cemeteries of the Medieval period that have been the object of archaeological intervention in several countries of Western Europe (France, Spain, England, Italy, Switzerland). The objective is to synthesise the information from each site in order to highlight the main characteristics and recurring points.

**Received:** 10.09.2022 **Revised:** 12.10.2022 **Accepted:** 19.10.2022

**Citation:** Blanchard P., Livet J., Di Stefano V. 2023. *Archaeological Interventions in Medieval Jewish Cemeteries in Western Europe*. "Fasciculi Archaeologiae Historicae" 36, 7-27, DOI 10.23858/FAH36/2023.001

**KEYWORDS**


- funerary practices
- burial methods
- cemeteries
- Jewish communities
- Middle Ages


**INTRODUCTION**


The subject of the funerary customs of medieval Jewish communities in the light of archaeological research in Western Europe does not seem to be sufficiently recognised. As of September 2022, the inventory of medieval and modern Jewish cemetery excavations in Europe counts less than 120 sites, 56 of which are located in Western Europe, mainly in Spain.<sup>1</sup> Within our inventory, sites were classified according to different categories, including the quality of data exploitation. We considered as 'excellent' sites which have yielded large series of graves (at least 30) and where recent methods in archaeology and anthropology could be

applied. For this last category, this implies that the bones were able to be the object of comprehensive excavation, with – samples taken in their entirety – and that a laboratory study could be carried out without obstacles. Finally, the classification in the highest category implies that the results have been published, that they are easily accessible, and that they deliver a general plan with detailed data for each grave (report, photos, surveys). The sites selected in this inventory correspond to the Jewish cemeteries that provided information on the parts of the graves buried under the surface of the ground (pits) and in particular those where bones could be excavated and/or collected. We have not taken into account the works when they were limited to studies of steles still in place in current cemeteries. The sites are thus those approached mainly by preventive archaeology. Some of them may refer to fortuitous discoveries made by workers during the course of work.

This article will summarise the data from the main sites in France, England, Switzerland, Italy, and Spain (Fig. 1). We will not deal with the sites

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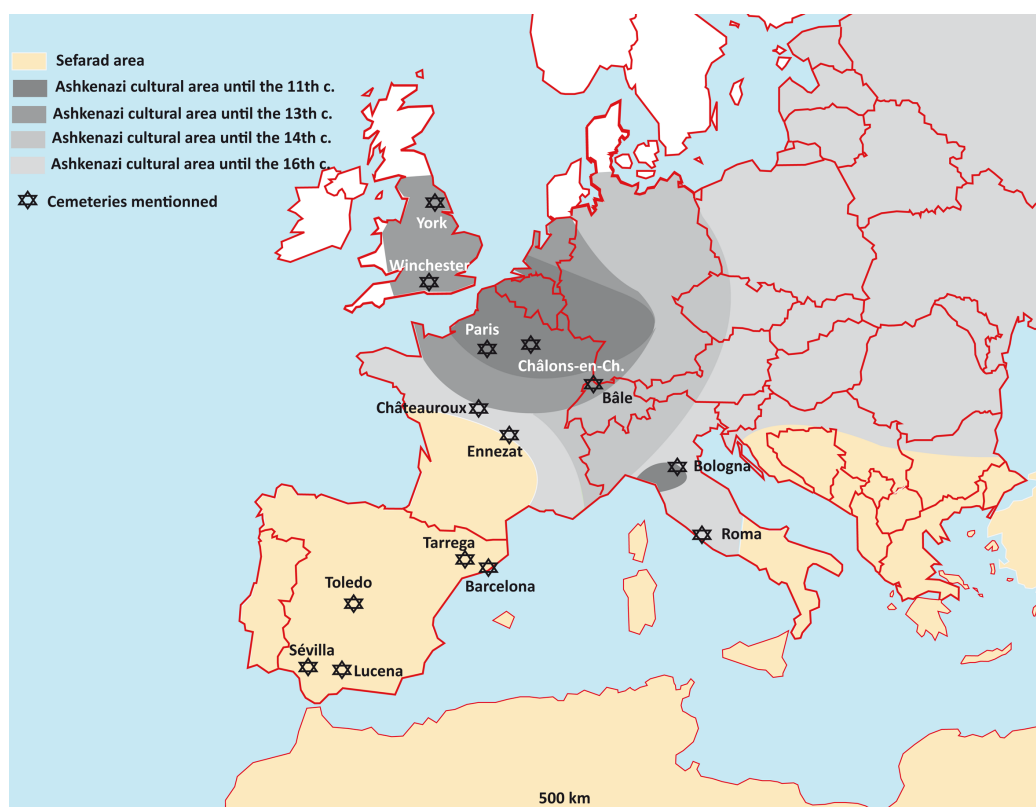
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<sup>1</sup> Blanchard 2022.



**Fig. 1.** Map of medieval Jewish cemeteries mentioned in the article (Ph. Blanchard/Inrap). Source: Barvavi 1992.



discovered in Germany, even though it occupies a central position in Europe and can be linked to the syntheses presented in this volume, due to the absence of sites that have yielded a very large quantity of grave tombs (except for that of Erfurt, whose excavation is recent, but where the data has not yet been published in full at the time of writing). In conclusion, we will summarise the characteristics of the cemeteries discussed.

## MAIN JEWISH CEMETERIES EXCAVATED IN EUROPE

### CEMETERIES IN FRANCE

#### INTERVENTIONS BEFORE 2018

Archaeological interventions in France remain rare. The first dates back to 1849 in Paris,<sup>2</sup> but provided little information. The first preventive archaeology operations were carried out in Ennezat in 1992<sup>3</sup> and then in Châlons-en-Champagne in 1994.<sup>4</sup> However, they only focused on a very small series of burials and could not benefit from anthropological studies.

In 1997, the first complete intervention (excavation, sampling, study, publication) on a cemetery attributed to the Jewish community was undertaken in Châteauroux.<sup>5</sup> However, here again, only

a few burials were studied: 10 children's graves, all of whom died between the ages of six months and eight years and were buried in nailed coffins. The hypothesis of a sector reserved for the youngest individuals was put forward. Radiocarbon dating made it possible to determine 95.4% probability of death between 1266 and 1298 CE.<sup>6</sup> At the end of this operation, new data were sought in order to complete the approach to medieval Jewish cemeteries in France.

#### THE PLANNED EXCAVATION OF A MEDIEVAL FRENCH JEWISH CEMETERY: ACQUISITION OF NEW DATA

Two new excavation campaigns were carried out at the Châteauroux site in 2018 and 2019, uncovering 46 burials and 48 deceased (Fig. 2).<sup>7</sup> The graves, oriented west-east, are organised in eight rows of north-south axes. There is little space between them, but overlaps are rare.<sup>8</sup> This demonstrates a rigorous management of the space and implies the use of surface signage to locate the ancient graves. According to radiocarbon dating, the burials in rows 1 to 5 and 8 appear to have taken place between the second half of the 12<sup>th</sup> century and the 14<sup>th</sup> century, on either side of a path (rows 6 and 7) that must have been used for burials from the second half of the 13<sup>th</sup> century onwards.

<sup>2</sup> Roblin 1952; Caillet 1988; Fellous and Nadiras 2018; Salmona 2021, 16-17.

<sup>3</sup> Parent 2011.

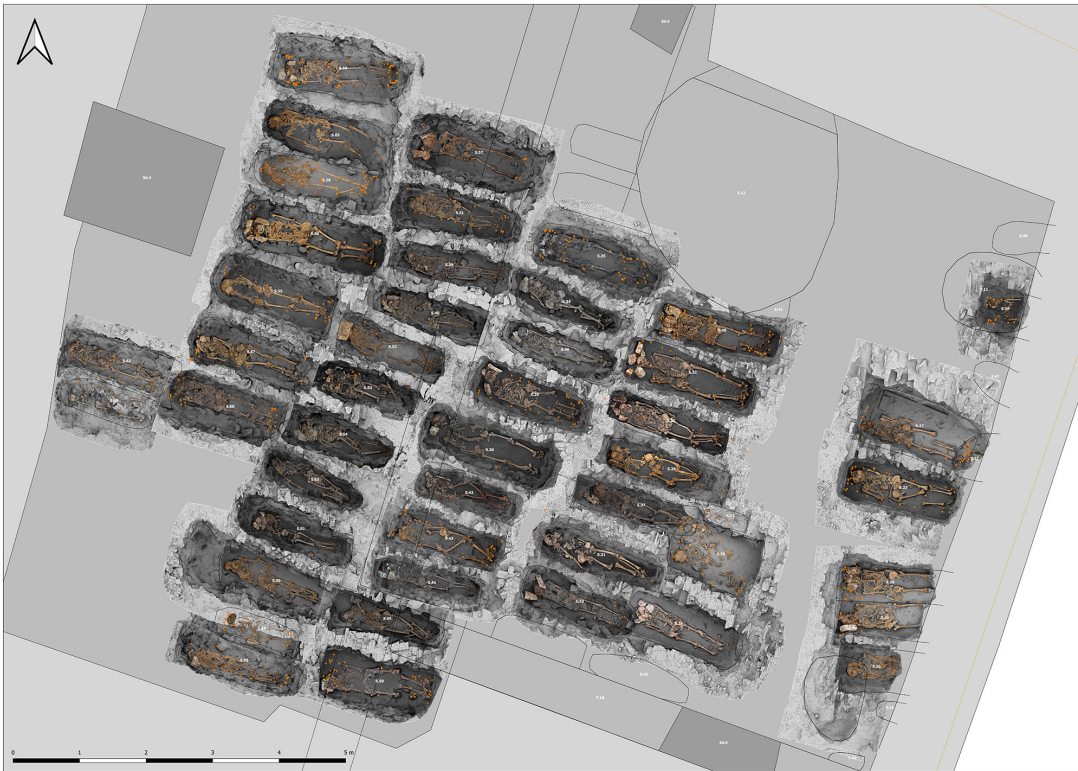
<sup>4</sup> Verbrugge 2021, 68-69.

<sup>5</sup> Blanchard and Georges 2011.

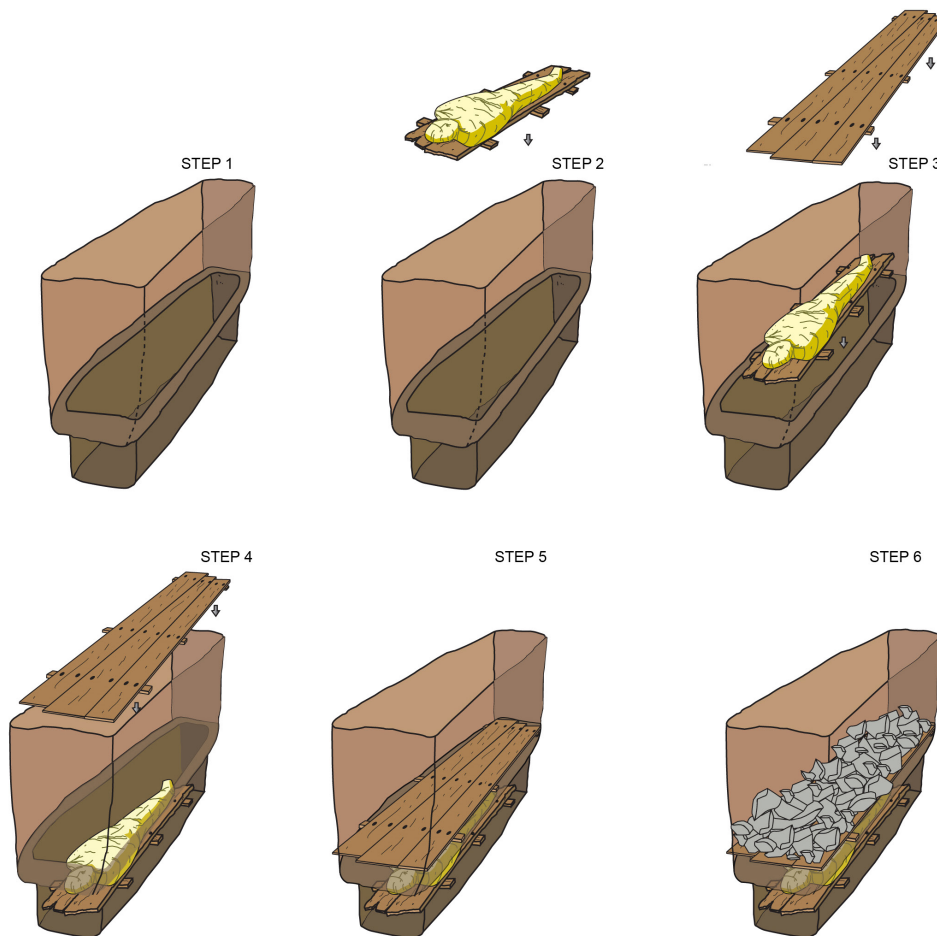
<sup>6</sup> Laboratory code: Lyon-2765(OxA).

<sup>7</sup> Blanchard et al. 2022.

<sup>8</sup> Only three overlaps have been identified. They never affect the bones.



**Fig. 2.** Ortho-photographic plan of the tombs excavated during the 2018 and 2019 excavation campaigns  
Graphic design:  
N. Holzem/Inrap.



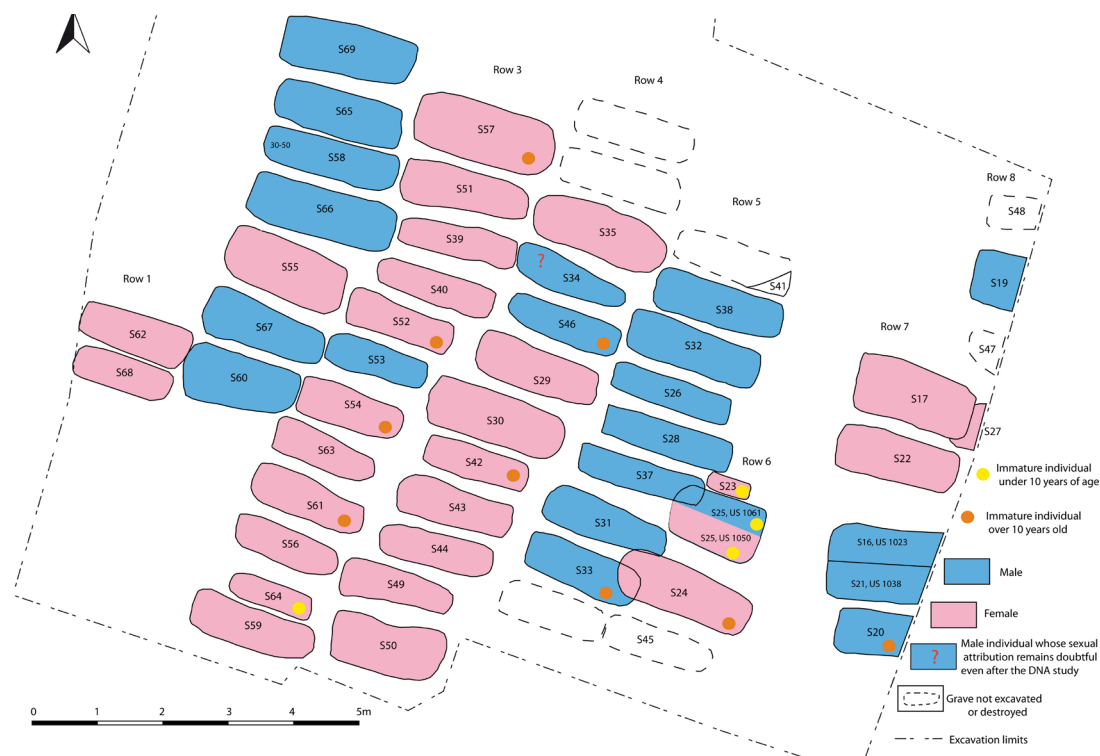
**Fig. 3.** Restitution of the different phases set up for the deposit of a stretcher burial topped by a wooden cover in the Jewish cemetery of Châteauroux.  
Graphic design:  
Ph. Blanchard/Inrap.

All the bodies had decomposed into empty space. Two modes of burial are present, with 18 nailed coffins and 23 stretchers topped with a wooden cover (Fig. 3). In seven cases it was

not possible to determine the precise mode of burial.<sup>9</sup>

<sup>9</sup> Blanchard et al. 2022, 201.

**Fig. 4.** Identification of ages and sex for the burials excavated in Châteauroux. Graphic design: Ph. Blanchard and J. Livet/Inrap.



The anthropological study of the buried population identified 35 adults and 13 juveniles under 20 years of age. However, among the younger group, the distribution is uneven, with only one individual dying before one year of age, three children dying between one and nine years of age, and nine between ten and 14 years of age. This part of the cemetery was probably reserved for individuals who were adults or socially considered adults (those over ten years old). Children under this age would have been buried mostly in a specific area (such as where the 1997 excavation revealed ten children's burials).

Anthropological methods<sup>10</sup> and DNA analysis<sup>11</sup> determined that the excavated population consisted of 27 women or girls and 21 men or boys.<sup>12</sup>

The spatial distribution of these individuals is interesting, as it demonstrates that the place of burial is correlated with both age at death (see above) and the sex of the individuals (Fig. 4). Within each row, there is a predominance of males (rows 2 and 5) or females (rows 1, 3, and 4). For the few anomalies found (males among rows predominantly composed of females and vice versa), the hypothesis put forward to explain them is that of family ties.

The position of the bodies is homogeneous, with the deceased buried on their backs, head to the

west, and upper limbs arranged in a low position (alongside the body, on the femurs or on the pubis). The lower limbs are generally straight except for two cases where one of the knees may have been bent.

Apart from elements related to the architecture of the burial method (nails), almost no artifacts were found. Only a coin,<sup>13</sup> not associated with the deceased, but found in a filling and an undetermined iron object were found.

The Châteauroux campaigns document the largest series of Jewish burials ever excavated in France. As there are no written records preserved for this cemetery and its occupants, the archaeological data are our best documentation of the Jewish community that used this space. This operation sheds new light on the funerary management of the graves according to the age and sex of the deceased and the family ties between the individuals. Additionally, it has allowed us to highlight the use of stretchers topped by a protective cover on French territory.

## CEMETERIES IN ENGLAND

### YORK

The York Jewish cemetery was one of the first large burial grounds of this community to be excavated in a preventive setting in Europe.<sup>14</sup> The plot, designated 'Jewbury', is located outside the medieval

<sup>10</sup> Bruzek 2002; Murail et al. 2005.

<sup>11</sup> Laboratory of David Reich (Biologist, geneticist, fossil DNA specialist, Harvard, Boston, USA), DNA project led by Leonard Rutgers (Archaeologist and historian of religions, University of Utrecht, the Netherlands).

<sup>12</sup> These results will be the subject of a later, more detailed publication.

<sup>13</sup> Coin of Alphonse de France dated between 1241 and 1249 CE.

<sup>14</sup> Lilley et al. 1994.

city and revealed 482 graves. The dating, according to textual sources, corresponds to the 13<sup>th</sup> century.

The excavated area consists of a dozen rows of relatively well aligned graves with regular spaces between each burial. It is established, again by textual sources, that the cemetery groups the deceased of the communities of York and Lincoln together, but there is nothing to distinguish them. The low overlap rates (12% of the fills and only 1.7% of the skeletons) imply the use of surface markers. Evidence for these remains scarce, however, with only a few suspected post holes or stakes and no stele uncovered.

The distribution of the deceased does not appear to be structured, except perhaps for the burials of children, which seem to be mostly concentrated in the southeast. Arrangement according to gender does not seem to have prevailed at this site, even though a grouping of 21 men is suspected in the southwest. The hypothesis is that these men belonged to the same social or religious category (such as rabbis).

The mode of burial is relatively uniform with the use of 458 nailed wooden coffins (95%), 19 assembled with angle irons and not nails (all located in the northeast of the excavated area), and 5 cases for which a wooden coffin can be excluded.<sup>15</sup>

The positions of the bodies are homogeneous: lying on their backs, upper and lower limbs in extension in most cases. In total, 96.7% of the individuals have their hands in a low position.

The grave goods, whether carried or placed in the grave, are almost non-existent. Only one iron object of uncertain function was found in a grave in the Jewish cemetery.

### WINCHESTER

The Winchester Jewish Cemetery was the subject of several interventions between 1955 and 1995, but the data has only recently been published.<sup>16</sup> From a total of 105 discovered graves, 101 were excavated. In the absence of grave goods and radiocarbon analysis, the date of use of the cemetery (mid-12<sup>th</sup> to late 13<sup>th</sup> century) is based primarily on textual sources.<sup>17</sup>

The site has an ancient north-south ditch running through the excavation that must have been noticeable in the landscape during the cemetery's use, marking a boundary between the graves. To the west the graves were installed in rows, and to the east the graves were more scattered and included a disorganised cluster of 20 graves (Fig. 5). The cemetery seems to have been arranged according

to age – graves of the youngest individuals<sup>18</sup> are located to the east of the ancient ditch, those of adolescents are located to the southeast, and those of adults to the northwest. In contrast to other Jewish cemeteries in Europe, it is also noticeable that not all the space provided for burials is occupied. Several graves are juxtaposed and only two overlap (only in one case was there bone disturbance). Surface marking must have been present, although no evidence of this has been identified.

The majority of the burials (63 of the 88 excavated during the last campaign in 1995) yielded at least one nail, suggesting a coffin mode of burial. The deceased were all found lying on their backs, head to the west (except for one oriented east), upper limbs in extension with hands in a low position. Apart from the remains associated with the coffins, the grave goods worn or deposited are almost non-existent, with only an iron pin, perhaps used to close a shroud, and a few horseshoe nails.<sup>19</sup> For the latter, the author does not exclude an apotropaic function. We should also note the mention of a fragment of a padlock case.<sup>20</sup>

### CEMETERIES IN SWITZERLAND

The only medieval Jewish cemetery in Switzerland was excavated in Basel. It corresponds to the first burial place of the community and was originally located outside the city. It ended up inside the city walls after the construction of a new enclosure around 1362.

Two interventions are known on this burial space, one in 1937 and the other in 2002/2003. Information is incomplete for the earlier excavation, but the latter is well documented.<sup>21</sup> Approximately 150 burials were recognised in 1937 and 58 in 2002/2003 (52 of which were *in situ*). For the 1937 excavation, only 53 individuals were studied anthropologically, according to the methods of the time. During the more recent intervention, 51 skeletons were excavated in place and 57 individuals were studied anthropologically (remains of 6 individuals were uncovered during construction work and were not excavated *in situ*; they have, however, been included in the study of the bones).

The data on the management of the burials reveal that they seem to have been arranged in rows for adults and older adolescents (from 14 years

<sup>18</sup> Children under six years of age are mostly concentrated in one pole in the east (17 of 20).

<sup>19</sup> Identical nails were uncovered at the Châteauroux site during scheduled excavations in 2018 and 2019.

<sup>20</sup> Its presence is not explained. Padlocks in the grave are very common as a funerary practice in Eastern Europe, Fijałkowski 2000; Skóra 2016.

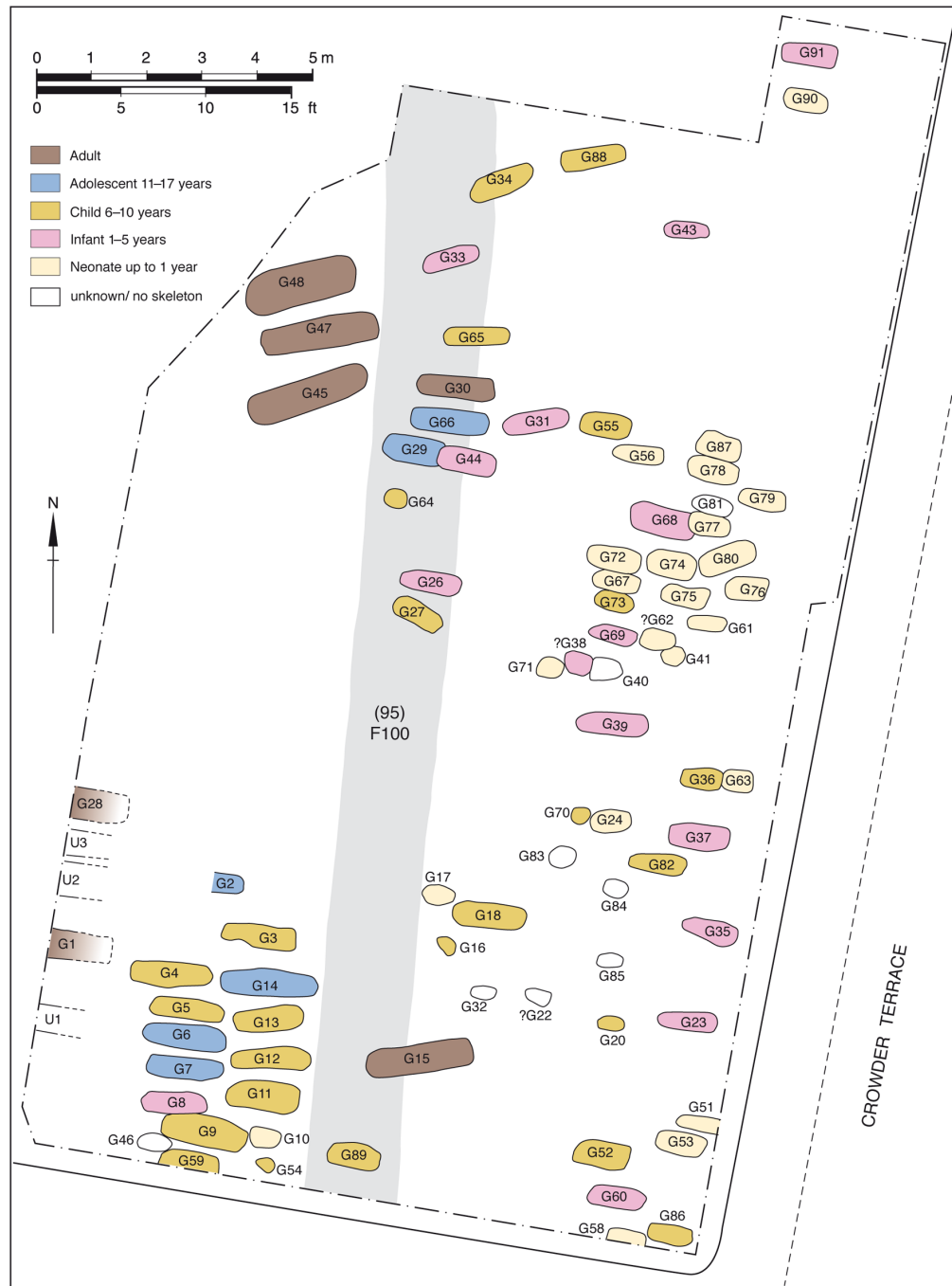
<sup>21</sup> Alder and Matt 2010.

<sup>15</sup> Mc Comish 2022.

<sup>16</sup> Qualmann 2018.

<sup>17</sup> Skinner 2003, 20; Qualmann 2018, 227.

**Fig. 5.** Plan of the 1995 excavation at the site of the former Jewish cemetery in Winchester. Source: Ottaway 2018: 222. Reproduced with the permission of the Hampshire Cultural Trust and Historic England.



of age) and that the youngest individuals were placed between the adult graves, at different altitudes. Thus, there does not appear to be any sectoring according to age. In the same way, the rows of graves observed are not organised, *a priori*,<sup>22</sup> according to the sex of the deceased. No overlap of graves and/or skeletons was observed, suggesting that marking must have existed. Fragments of stelae were collected in large numbers in 1937, but relatively few in 2002/2003.

<sup>22</sup> It should be noted that the excavation forms a west-east rectangle of about 150 m<sup>2</sup> where nine short rows of three to four individuals were observed. It is therefore difficult to know whether these rows were predominantly reserved for one sex – none of the rows studied were specifically male or female.

The anthropological study for the recent excavation revealed the presence of 24 adults/large adolescents (nine females, 12 males, and three undetermined) and 33 children aged between 6 months and 14/15 years, 19 of whom died around the age of 1 year.

The burials were made in narrow, deep pits, in wooden coffins for the adults and older adolescents. No evidence of such devices was collected for the younger individuals, for whom burial in shrouds is assumed. A rectangular shaped earthen cushion was placed under the head of adults in the coffin (Fig. 6). This practice was recognised during both excavations. Initially interpreted as a deposit of earth from Palestine, analyses proved that the sediments came from a nearby environment. The hypothesis proposed is



**Fig. 6.** View of excavated burial 49 (excavation 2002/2003) with the skull resting on an earthen cushion.

Source: Catrin Gläser, Archäologische Bodenforschung Basel-Stadt.



**Fig. 7.** View of a series of tombs from the Jewish cemetery in Rome.

Source: De Cristofaro et al. 2017, 30.

that of an earthen cushion intended to maintain the head in a certain position and/or a reminder of the origins of the dead. The deceased were lying on their backs, head to the west and limbs extended (hands almost exclusively along the body).

The grave goods from the 2002/2003 excavation consisted only of a small knife found in the hand of a deceased person (the hypothesis proposed by the authors is that the individual was a circumciser<sup>23</sup>) and a cloth band with silver and gold metallic threads. From the 1937 excavation, three or four buckles (probably belt buckles) are

mentioned as well as two monetary deposits. However, it is not specified whether the batches of coins were deposited in the grave at the time of the deceased's burial or whether they may correspond to later deposits.

The use of the cemetery is dated essentially by cross-referencing textual sources and inscriptions collected on stelae. It was in use at least between 1222 and 1349, but its origin may date back to the early 12<sup>th</sup> century.

## CEMETERIES IN ITALY

### ROME

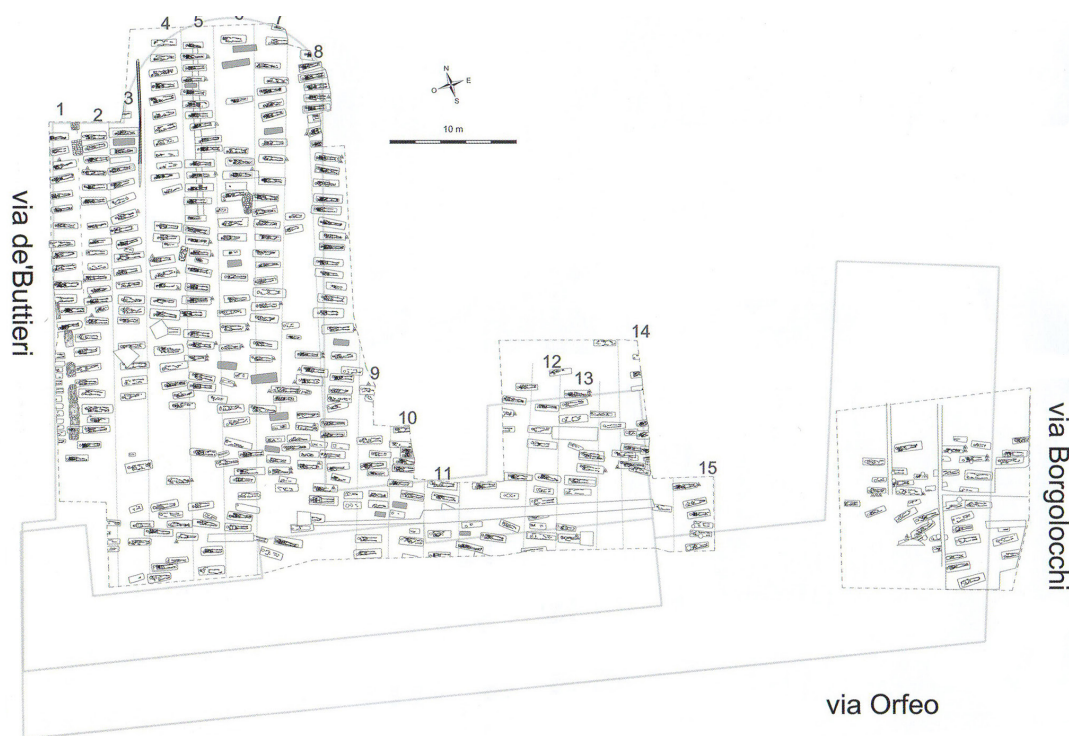
A preventive excavation was conducted between 2013 and 2016 in the Trastevere district

<sup>23</sup> However, it is questionable whether this object could refer to a person who performed the ritual slaughter of animals.



**Fig. 8.** General plan of the Jewish cemetery in Via Orfeo in Bologna.

Source: L. Buonamico in Curina and Di Stefano 2019, 57.



of Rome.<sup>24</sup> 30 burials were uncovered there (Fig. 7). They are arranged in parallel rows, with pits oriented west-east and spaced at least 0.70 m apart. No overlaps are noted, suggesting marking.

The individuals are lying on their backs, with their upper limbs extended and their hands in a low position. The anthropological study revealed the presence of at least 13 males and nine females, as well as one adolescent male or female and four children. The burials were all in nailed wooden coffins.

There are no grave goods in deposit. However, elements of adornment are present: two gold rings and a fragment of a scale or weight in the hand of one individual.

The chronology of the cemetery is provided by textual sources, stratigraphy (relative chronology), and radiocarbon dating. This burial space seems to have been used from the 14<sup>th</sup> to at least the 16<sup>th</sup> century.

### **BOLOGNA**

Between 2012 and 2014, a preventive archaeological excavation was carried out in Via Orfeo, on the outskirts of the medieval city of Bologna, at the site of the former Jewish cemetery used between 1393 and 1569.<sup>25</sup>

The archaeological intervention allowed the identification of 414 burials, oriented west-east in 15 parallel rows (Fig. 8). However, the management

is not uniform since strict rows can be distinguished in the western part and much looser in the east – the easternmost graves seem disorganised to the point of no longer respecting the rows. An access path to the graves is suspected between rows 7 and 8. According to the archaeologists, the initial cemetery was located to the west (rows 1 to 3) and was then extended twice to the east. The slight overlaps suggest a very probable marking. No stelae were uncovered, but a dozen rectangular masonries were interpreted as foundations for them.

All but two of the burials were individual, but of the 414 pits, 21 appeared to be entirely empty of bones. The deceased were all laid out with their heads to the west, but one child was found inverted, skull to the east. Of the 309 individuals studied for position, 298 were laid on their backs, ten on their sides and one on their stomach. The proportion of limb positions is not specified, but all the photos and records suggest low positions.

The mode of burial appears to have been mostly in coffins, with wooden remains or nailed in at least 300 graves.<sup>26</sup>

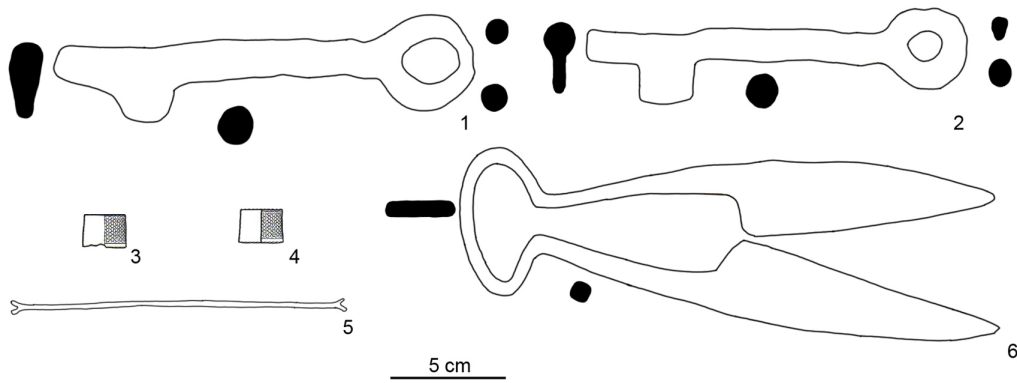
Of the 393 individuals buried, 80 were immature (under 20 years old) and 313 were adults. Of the latter, 118 females, 90 males, and 105 individuals of undetermined sex were accounted for.

Items deposited with the deceased were four keys, thimbles, a pair of scissors, and a net needle for processing lace (Fig. 9). These are probably

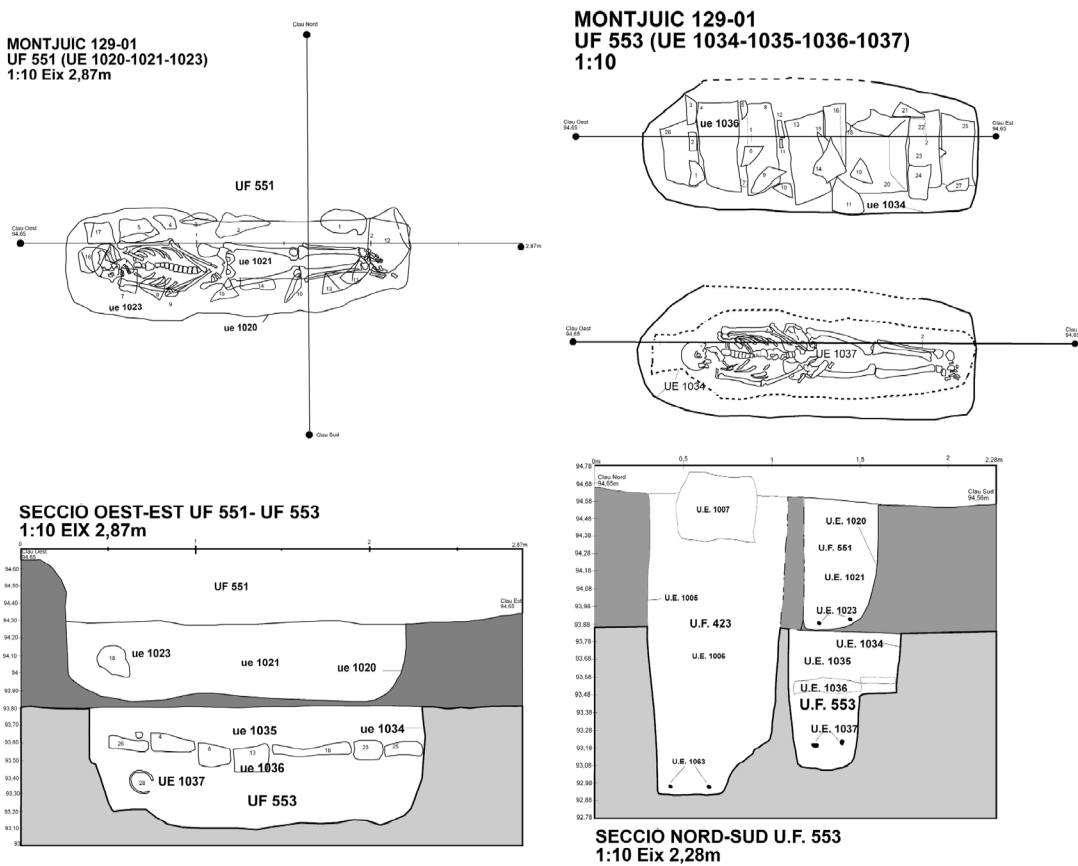
<sup>24</sup> De Cristofaro et al. 2017.

<sup>25</sup> Curina and Di Stefano 2019.

<sup>26</sup> Curina and Di Stefano 2019, 61.



**Fig. 9.** Grave goods in deposit uncovered in graves in the Jewish cemetery of Bologna. 1-2 – keys; 3-4 – thimbles; 5 – net needle; 6 – scissors. Source: Curina and Di Stefano 2019, 81.



**Fig. 10.** Plan and cross-section of superimposed graves UF 551 and 553 excavated in the Jewish cemetery of Barcelona in 2001. Source: X. Maese Fidalgo, Servei d'Arqueologia de Barcelona.

artifacts related to the functions or profession of the deceased. Those related to adornment consist of numerous gold or copper alloy rings and wedding bands (nearly 40), seven earrings and a beaded necklace or rosary. None of the discovered grave goods suggest the presence of dressed burials.

## CEMETERIES IN SPAIN

### BARCELONA

Two excavations have been carried out in the Jewish cemetery in Barcelona in 1945/1946<sup>27</sup> and again in 2001.<sup>28</sup> The first intervention revealed human

bones on a plot located on a hill named Montjuïc, south of the city. The second excavation was aimed at better defining the boundaries of the burial space and its chronology. A total of 728 burials were identified, but only 199 could be excavated (171 in 1946 and 28 in 2001). This number of 728 is a minimum, because three of the pits excavated in 2001 revealed that an older grave had been excavated to accommodate a new deceased person, at a higher altitude, without affecting the bones of the first individual. Observation of the stratigraphic sections (Fig. 10) proves that a level of earth was brought in to raise the ground. There must therefore be, in places, two distinct burial levels. The 1946 excavation mentions three overlaps of burials.

<sup>27</sup> Duran y Sanpere and Millas Vallicrosa 1947.

<sup>28</sup> Maese Fidalgo 2004.

**Fig. 11.** Anthropomorphic graves covered with slabs and excavated in 2001 in the Jewish cemetery of Barcelona.  
Source: X. Maese Fidalgo, Servei d'Arqueologia de Barcelona.



**Fig. 12.** Grave with a lateral cavity closed by flat stones and excavated in 2001 in the Jewish cemetery of Montjuich.  
Source: X. Maese Fidalgo, Servei d'Arqueologia de Barcelona.



The graves are organised in fairly loose rows. Four different types of architecture were observed; the most numerous correspond to pits with nailed wooden coffins (88 cases). 86 graves were anthropomorphic and often covered with slabs<sup>29</sup> (Fig. 11), 16 were ‘bathtubs’, an oval pit with a concave bottom that could also have a cover slab (none recognised in 1946), and, finally, nine with a lateral cavity at the bottom of the pit<sup>30</sup> (Fig. 12).

From an anthropological point of view, the 1946 excavation recorded 90 adults and 24 immatures

(no details). After the 2001 intervention, 17 adults and six immatures (no details) were added.<sup>31</sup>

The positions of the bodies and limbs are not specified for the 1946 excavation. In contrast, all of the individuals excavated in 2001 were lying on their backs except one case on their side. The hands are in a low position. The west-east orientation (with slight variations) was observed for all individuals in both 1946 and 2001.

Chronologically, the burials are distributed between the 11<sup>th</sup> and 14<sup>th</sup> centuries, but the style of inscription and clues in the textual sources indicate an earlier origin, probably as early as the

<sup>29</sup> This mode of burial was very common among Christians in Europe during the same period, Blanchard and Poitevin 2012.

<sup>30</sup> This mode of burial is not unique to the Jews since it is also observed in the Islamic ritual, Gleize 2022.

<sup>31</sup> Roig et al. 2018.



**Fig. 13.** View of the funerary slab uncovered in place in the part of the Jewish cemetery excavated in 2001. Source: X. Maese Fidalgo, Servei d'Arqueologia de Barcelona.

9<sup>th</sup> or 10<sup>th</sup> century.<sup>32</sup> The first mention of the cemetery dates from 1091.

No grave goods were found during the 2001 intervention, but a stele in place (Fig. 13) with an inscription from 1229 was uncovered, adding to the 105 inscriptions known for this site. In contrast, the 1946 excavation yielded four silver or gold rings, some of which bear inscriptions in Hebrew or Arabic. Three earrings were also uncovered, as were textile remains found in place on skulls (ten cases) (Fig. 14) – silk headbands with gold threads which must have corresponded to headdresses. Both in 1946 and in 2001, large pyramid-shaped stones were observed or collected in the fillings. Some of them had inscriptions and had the function of indicating the location of the grave while protecting the body.

This funerary space is to date the most important funerary complex with regard to the number of Jewish burials identified with archaeological methods in Western Europe.

#### **TARREGA**

The Jewish cemetery of Tarrega was the subject of two preventive excavations in 2007.<sup>33</sup>

The interventions uncovered 182 individual burials and six mass graves. Located outside the



**Fig. 14.** View of the female skull uncovered in 1946 with remains of textiles and gold threads preserved. Source: Duran y Sanpere, Millas Vallcrosa 1947.

city, the cemetery was in use between 1278 and 1492.

The individual burials were arranged in strict rows on a single level. Overlaps are non-existent, indicating surface marking, though no slabs were uncovered. Four cases of body reduction, in which the main long bones are gathered in bundles, are nevertheless recorded (Fig. 15). The mass graves are grouped together in one sector

<sup>32</sup> Maese Fidalgo and Casanovas Miro 2002.

<sup>33</sup> Teixido 2007; Colet Marcé et al. 2009; Colet et al. 2010; Colet et al. 2011.

**Fig. 15.** View of a secondary burial excavated in the Jewish cemetery of Tarrega. Source: Local Museum of Urgell-Tarrega.



of the cemetery and take the form of trenches of varying lengths, depending on the number of individuals. These correspond to the victims of the pogrom of 1348 (traces of violence were perceptible on the bones).

The burials are mainly in ‘bathtub’ pits according to the Spanish term, but simple or anthropomorphic pits have also been recognised. Stone slabs are sometimes present as a cover for these (slab covers were not used for simple pits). Remains of wood and nails have made it possible to determine the presence of numerous coffins and some stretchers. Shrouds are sometimes suspected on the basis of textile remains or copper alloy pins.

The bodies are lying on their backs, with their hands in a low position, except for one case of limbs flexed on the thorax and another case where they rest on the abdomen. The orientation is west-east except in one case (east-west).

251 individuals were excavated in individual and mass graves. They correspond to adult (male, female, and undetermined) and immature individuals of all ages.

There are no grave goods in deposit. On the other hand, objects related to adornment were observed: rings (two of which had Hebrew characters), bracelets, necklaces, and earrings. Remains of textiles were also found. They are interpreted as fragments of shroud, but it could be, in some cases, elements of headdresses as in Barcelona.

### TOLEDO

The city of Toledo had a large burial area outside the walls in the Middle Ages, common to all

three religions. Recent research<sup>34</sup> has made it possible to specify that this funerary space corresponded to the juxtaposition of cemeteries of the different religious denominations that sometimes evolved over time. The Jewish cemetery is located at the Cerro de la Horca. It was the subject of two separate (in terms of time and space) interventions in 2009<sup>35</sup> and 2014.<sup>36</sup> The graves discovered in 2009 seem, according to radiocarbon analysis, to be dated to the 12<sup>th</sup> or 13<sup>th</sup> century, while those exhumed in 2014, would be dated to the 13<sup>th</sup>–14<sup>th</sup> centuries and were located at the site of an old Muslim cemetery that was probably in use in the 10<sup>th</sup> and 11<sup>th</sup> centuries. This shift can be explained either by an extension of the original nucleus, or by a displacement of the burial space to the southeast.

107 (2009) and then 51 (2014) tombs were uncovered. Only the individuals from the second excavation could be the subject of an anthropological study.

The burials were arranged in rows, more or less regularly (rather less for the later ones). Overlaps between Jewish tombs remain exceptional,<sup>37</sup> suggesting marking. No inscribed slabs have been found, but some of the pits recognised in 2009 are delimited by small stones or bricks. In the same sector, masonry enclosures surround groups of burials. The hypothesis of family concessions has been raised.

The modes of burial differ from one excavation to the next. In the first, we distinguish between masonry tombs with brick vaults, called *lucillos*, in

<sup>34</sup> Ruiz Taboada, forthcoming.

<sup>35</sup> Ruiz Taboada 2013.

<sup>36</sup> Ruiz Taboada 2016.

<sup>37</sup> Only one case at the 2014 site. No bone involvement.



Fig. 16. Internal view of a tomb in a *lucillo*. Source: A. Ruiz Taboada.

which coffins are often placed (48 cases) (Fig. 16), single graves, with or without coffins (47 cases), and graves with covers (slabs, boards, masonry – four cases). Double or triple graves are also recognised as well as secondary burials (two cases) and empty graves (two cases). Moreover, it was found that the sediment used to fill the burial pit may have been sifted before use (probable internal marking to alert the gravedigger to the presence of an old grave). At the second site, *lucillos* are absent, replaced by pits with a lateral cavity and closed by stones or boards (eight cases). Coffin nails (found in 22 graves) are never associated with this last category.

The presence of double or triple graves is recognised in the 2009 excavation, as well as secondary burials (two cases) and empty pits (two cases). It was also noted that the sediment may have been sifted before being used to fill the pit (probable internal marking).

The arrangement of the bodies is common to both sites, with the deceased lying on their backs, head to the west or southwest, upper limbs very rarely flexed, hands in a low position and lower limbs essentially in extension. The head seems to have been placed under a cushion,<sup>38</sup> with the gaze directed towards the sky except in the pits with lateral cavities. Analysis of the sediment from these cushions suggests that it was collected from a nearby stream.

Age and sex determination is not mentioned in the publications. For the 2009 excavation, this is explained by the reburial of the skeletons before any anthropological studies. Only the major age groups are mentioned, with 70 adults (including

three young people), 14 children, two described as ‘young people’ and 21 whose age is not specified. No data is available for the excavated site on General Villalba Street.

The grave goods are absent from the site excavated in 2007. However, the 2014 excavation yielded a few earrings, a ring, and a possible reliquary pendant.

The radiocarbon datings carried out in 2014 made it possible to determine the area was in use around the 13<sup>th</sup>–14<sup>th</sup> centuries, whereas the part excavated in 2009 seemed to belong to the 12<sup>th</sup>–13<sup>th</sup> centuries. The latter part could be an extension of the original core, occupying a space left vacant by a former Muslim cemetery.

#### LUCENA

The Jewish cemetery of Lucena was partially excavated in 2007.<sup>39</sup> The site is located south of the city, 700 m from the medieval city wall. 346 graves have been identified. Their organisation is in the form of concentrations of burials without any pit overlap, which implies effective marking.

The pits did not yield any grave goods. The rare elements that were found are related to the mode of burial, such as a large fragment of an ancient stele reused in blocks on the periphery of the pit (lower part). The style of the stone is dated to the 8<sup>th</sup> or 9<sup>th</sup> century, while radiocarbon analyses prove that the cemetery was used towards the end of the 10<sup>th</sup> century and during the 11<sup>th</sup> century.

The burials correspond exclusively to individual graves.<sup>40</sup> Archaeologists were able to determine

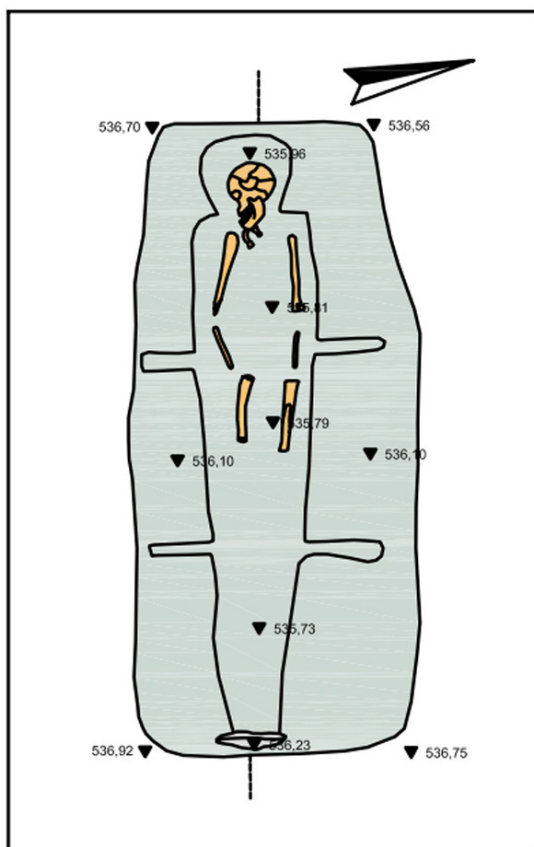
<sup>39</sup> Botella Ortega and Casanovas Miro 2008; Riquelme Cantal and Botella Ortega 2011.

<sup>40</sup> It should be noted that among these, two correspond to secondary burials. They were quite close to each other.

<sup>38</sup> 19 cases identified at the 2014 site.

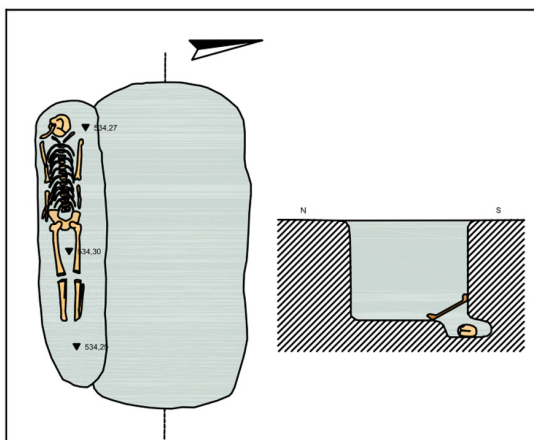
**Fig. 17.** Plan and cross-section of a simple grave with a missing wooden lid. The latter was supported by wooden crosspieces that have also disappeared, but whose notch in the substrate remains.

Source: Botella Ortega and Casanovas Miro 2008, 22.



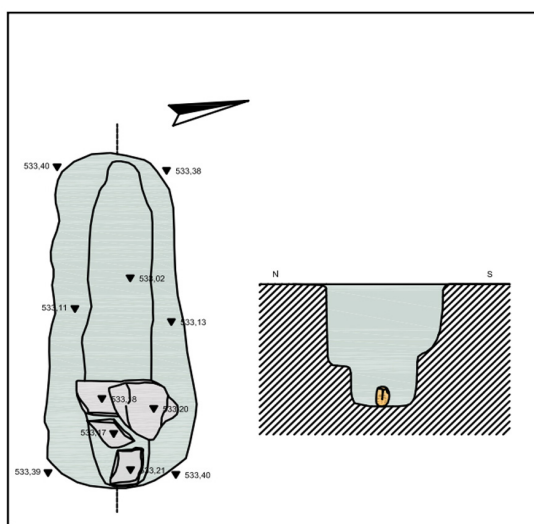
**Fig. 18.** Plan and cross-section of a pit burial with a lateral cavity for depositing the deceased.

Source: Botella Ortega and Casanovas Miro 2008, 22.



**Fig. 19.** Plan and cross-section of a burial with benches to support a missing cover. The presence of an internal device for marking the body can be seen – stones deposited on the cover at the level of the skull.

Source: Botella Ortega and Casanovas Miro 2008, 22.



four distinct modes: pits with benches around the body to support a cover (176 cases) (Fig. 17), pits with a lateral cavity (107 cases) (Fig. 18), simple pits with a missing cover (61 cases), and pits combining benches and a lateral cavity (two cases). Both archaeological and anthropological observations allow us to rule out the use of a shroud. In 77 cases, a stone or tegula, laid flat, was placed on the cover, at the level of the head or feet, as an internal marking on the filling (Fig. 19). The authors assume that the covers may have been used to transport the body to the cemetery (a sort of stretcher) and then placed as a closing or protective device for the deceased.

The poor preservation of the bones allowed us to determine the sex of only 54 males and 34 females; 113 individuals remain of undetermined sex. For the ages at death, eight children, 17 adolescents, 19 young adults, 53 middle-aged adults and four elderly adults were recognised.

Observation of the preserved bones indicates that the deceased were laid on their backs, head to the west in 138 cases. The lower limbs were in extension, except in 38 cases. Only two cases of lateral position were found. The position of the hands and upper limbs is not mentioned.

### SEVILLE

The Jewish cemetery of Seville is located in the southeast of the medieval city, close to the city wall, from the present Puerta de la Carne to the San Bernardo neighbourhood. It was the subject of eight separate archaeological interventions between 1992 and 2003<sup>41</sup> that yielded 402 burials (Fig. 20). The burials identified in the San Bernardo neighbourhood were made on sediments interpreted as fluvial deposits related to the Tagarete river floods and could correspond to an extension of the initial burial area.

This cemetery appears to be one of the largest in Spain after that in Toledo. Documentary sources, confirmed by archaeological data, date the first burials to the middle of the 13<sup>th</sup> century. In addition to the relative chronology of the tombs, the interventions have shown that there were at least four distinct phases of burials (natural and/or anthropic) before the cemetery was abandoned in 1484.

The first phase of the cemetery was established on levels of Islamic occupation, in this suburb of the city, and extended until the beginning of the 14<sup>th</sup> century. Bodies are buried in coffins in *Lucillo* tombs (as in Toledo) forming north-south rows

<sup>41</sup> Santana Falcon 1992; Santana Falcon 1995; Romo Salas et al. 2001; Santana Falcon 2006.





**Fig. 21.** Archaeological excavations in the new headquarters of the Provincial Council of Seville (1992). Photo: José Maria Rodrigo Camara.



## SYNTHESIS

In view of the preceding descriptions, it is possible to recognise characteristics that are specific to medieval Jewish cemeteries and that are clearly distinct from the rituals observed in the burial spaces of other faiths.

First, all cemeteries are located outside the medieval city,<sup>42</sup> usually near one of the main city gates.<sup>43</sup> Unlike Christian cemeteries, these burial spaces were never located in the immediate vicinity of the synagogue. This point is clearly influenced by the Jewish laws which consider the corpse as impure and oblige the faithful to place the cemetery far from the places of worship.

One of the constants in the organisation of burials in Jewish cemeteries is the avoidance of overlaps between ancient graves, in keeping with Jewish laws<sup>44</sup> that forbid the disturbance of ancient graves.<sup>45</sup> To comply with these prescriptions, the communities used various means. The first was setting up markings for the graves. This may have taken different forms – on the surface of the ground or even inside the fill. The most common way was to

indicate the location by a marker above the fill (in wood or stone). Those made of stone (sold after the expulsions) were erected (stele) in Ashkenazi cemeteries or placed on the ground (slab) in Sephardic cemeteries (like the one found in Barcelona). They must have been inscribed in order to facilitate the identification of the deceased. The location of the graves could also have been marked by the installation of an apparent surface demarcation (perimeter of the grave as in Toledo) (Fig. 22) or by the installation of a pavement around the periphery of the grave (Seville). The gravedigger could, finally, be helped by the covering stones of anthropomorphic tombs (Tarrega, Barcelona, Lucena and Toledo) or the brick *lucillo* vaults. At the same time, marking could be internal, with arrangements in the filling of the grave as the filtration of sediment (Toledo), the deposit of large blocks of stone or horizontal tegulae (Lucena). All these devices have contributed to the preservation of ancient graves. Though cases of overlap are known, they remain relatively rare compared to those of the Christians<sup>46</sup> and only very exceptionally disturbed the bones.

The second way to avoid disturbing ancient tombs is through extremely rigorous management of space. This is reflected in a more or less strict organisation in rows (Châteauroux, York, Basel, Rome, Bologna, Toledo, Seville), suggesting an optimisation of the available space (evident in Châteauroux, where there is little space between the graves). At Lucena, les tombes paraissent désorganisées. The Winchester site has both types of organisation, rows and groups, but this seems to be

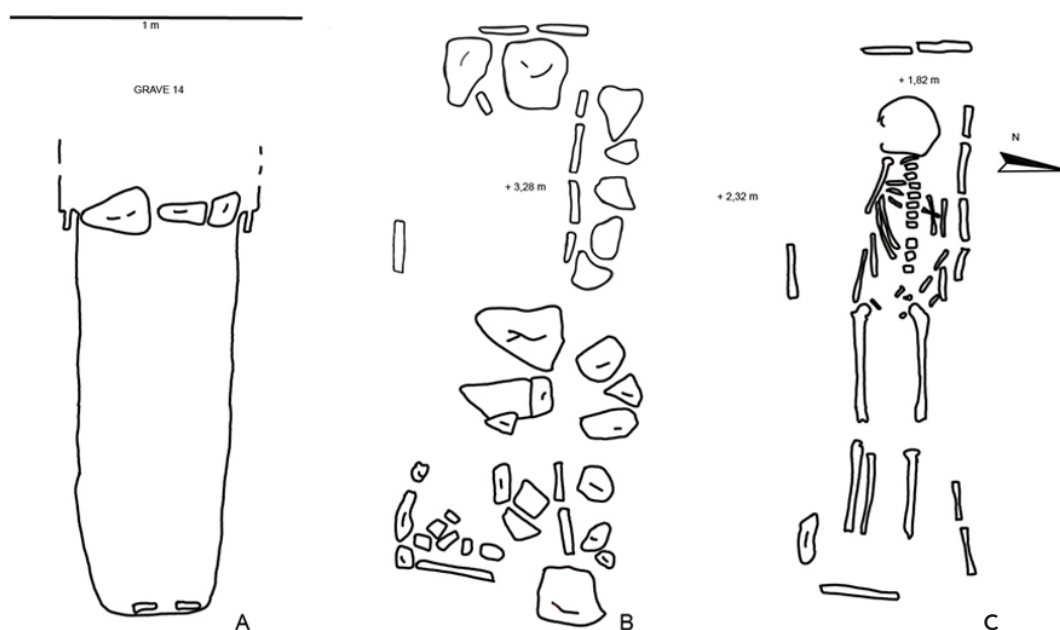
<sup>42</sup> Gilchrist and Solane 2005, 46.

<sup>43</sup> Topographically, Jewish cemeteries also appear to have been placed in dominant positions when the landscape permitted. Thus, these funerary spaces are quite often placed on the top of heights (hills, mounds, promontories...) or on slopes. It seems that the search for a pleasant view was one of the criteria for selecting the sites. This responded to an aesthetic requirement from a Talmudic exclamation in Sanhedrin 96b: 'Their tombs are more lavish than your palaces', Nahon 1980, 77-78.

<sup>44</sup> This is mentioned as early as antiquity (Mishna) with the function, originally, of signalling the presence of a body which may be considered impure and which could defile those who must preserve themselves from it (Cohanim), but also in order not to disturb this grave, Goldberg 1989, 35.

<sup>45</sup> Nahon 1980, 73.

<sup>46</sup> Mc Comish 2022, 209-210.



**Fig. 22.** Plan and cross-section of grave T14 excavated in the Jewish cemetery of Toledo in 2009 and where the location is indicated on the surface of the ground by a perimeter of tiles laid on the edge and the deposit of some stones. A – section; B – masonry roofing; C – lower level of the foundation. Source: Ruiz Taboada 2013, 72.

more in response to considerations related to the age of the individuals<sup>47</sup>. This optimisation of space can also be seen at Basel, where the youngest individuals were deposited between the adult graves. Cases of superimposition or overlapping are recognised (Barcelona, Seville) and are made possible by natural (floods) or anthropic (embankments) contributions of sediment.

Family ties are suspected for some individuals, on several sites, and take the form either of enclosures (Toledo), or of a rapprochement of graves highlighted by DNA results, as at Châteauroux. Also, the management of burials may be influenced by age or sex criteria, as at Châteauroux, York or Winchester. However, the sometimes limited samples of graves (Barcelona 2001), the absence of anthropological studies (Toledo 2009) or the use of old methods (Barcelona) or even outdated methods (York) as well as the poor conservation of bones (Lucena) considerably limit this assessment of cemetery management.

The modes of burial appear to be diversified, but this must be qualified with criteria of chronology and space. Those presented here were used from the 10/11<sup>th</sup> century (Lucena) to the 15/16<sup>th</sup> century (Rome and Bologna). This long period of time may have influenced burial patterns and make comparisons more complex. Thus, while all the sites mention the use of coffins, the Lucena site did not yield any. This absence is perhaps linked to the early age of the site. In the same way, distances and cultural areas may have had an impact on burial practices.

The modes of burial seem less diversified in countries outside of Spain. Indeed, if the use of wooden coffins nailed in simple pits appears to be in the majority on many sites (York, Basel, Winchester, Rome, and Bologna), other modes (anthropomorphic pits, tombs with side cavities, masonry tombs) are present in large numbers on the Iberian Peninsula. The use of stretchers is recognised at the sites of Tárrega and Châteauroux, but could be more important. It is indeed difficult to identify such a device once decomposed, especially if it was deposited on the pit floor. Stretchers composed of several wooden elements assembled with nails could easily be mistaken for coffins. These modes of burial are not unique to Jewish communities, since they are shared by Christians as with coffins<sup>48</sup> or anthropomorphic tombs<sup>49</sup> (Fig. 23). Some types, such as side-cavity tombs, even seem to be borrowed from the Muslims of Spain.<sup>50</sup> It should be noted, however, that the latter type is not found elsewhere in Europe at the same period. Only the use of the *lucillo* could be exclusive to Jewish communities, as Arturo Ruiz Taboada assumes.<sup>51</sup>

Overall, the positions and orientations of the bodies seem relatively uniform. We observe that the deceased are almost always lying on their backs with their limbs extended and their heads facing west. Slight variations exist (York). On the other hand, the position of the hands crossed on the abdomen or on the thorax (high position) is one of the best criteria for identifying a non-Jewish

<sup>47</sup> In rows for adults, adolescents, and children, and in groups for infants.

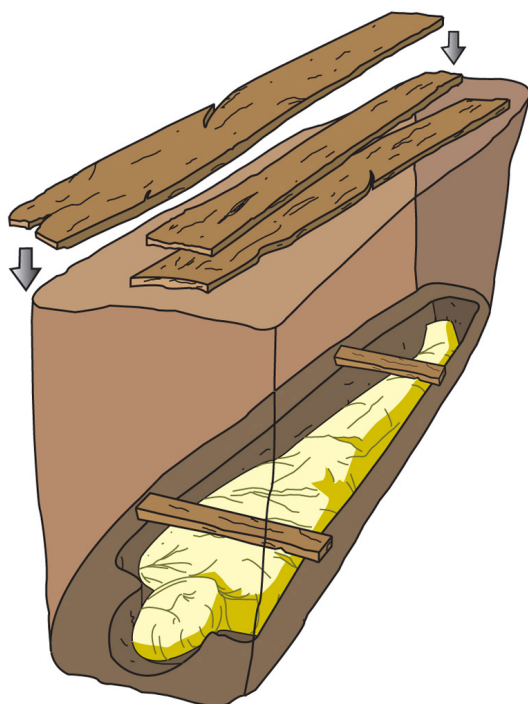
<sup>48</sup> Boissavit-Camus et al. 1996.

<sup>49</sup> Blanchard and Poitevin 2012.

<sup>50</sup> Gleize 2022.

<sup>51</sup> Ruiz Taboada 2016.

**Fig. 23.** Restitution of an anthropomorphic tomb with lateral benches observed in the Christian cemetery of *La Madeleine* in Orléans (France) and in use between the 10<sup>th</sup> and 12<sup>th</sup> centuries. Graphic design: Ph. Blanchard/Inrap.



tomb.<sup>52</sup> Indeed, archaeological observations in Jewish burial spaces reveal that the extremities of the upper limbs are almost exclusively in the down position. In this respect, individuals in Jewish cemeteries are very clearly distinguished from Christians. According to a mandate issued in 1482 by Queen Isabella, placing the hands along the body would be a typically Hebrew practice, since she asked the Inquisition to search for cemeteries of converts where communities applied a funeral ritual with ‘...arms extended and not placed in a cross...’.<sup>53</sup>

From the biological point of view, the results reveal the presence of individuals of both sexes and of all ages. The most interesting element is probably the distribution according to age (York, Châteauroux) and sometimes even sex (Châteauroux). This had never been observed in an archaeological context before the excavation of this last dig in France, but an 18<sup>th</sup>-century engraving in a Swiss Jewish cemetery between Lengnau and Endingen reveals that this is not an isolated practice in time or space (Fig. 24). However, this must be qualified. Indeed, if the recognition of ages is relatively reliable, the

<sup>52</sup> Low hand positions can be observed in greater numbers in France in early medieval sites (6<sup>th</sup>-10<sup>th</sup> centuries), but rarely in proportions close to those in Jewish cemeteries. This indication of recognition of these hands for these Jewish populations is therefore to be correlated with a chronology of the second Middle Ages.

<sup>53</sup> Collantes de Teran Sanchez 1984, Appendix VI, 447; Santana Falcon 1995, 96. The implication is that crossed arms are typically Christian at this time.

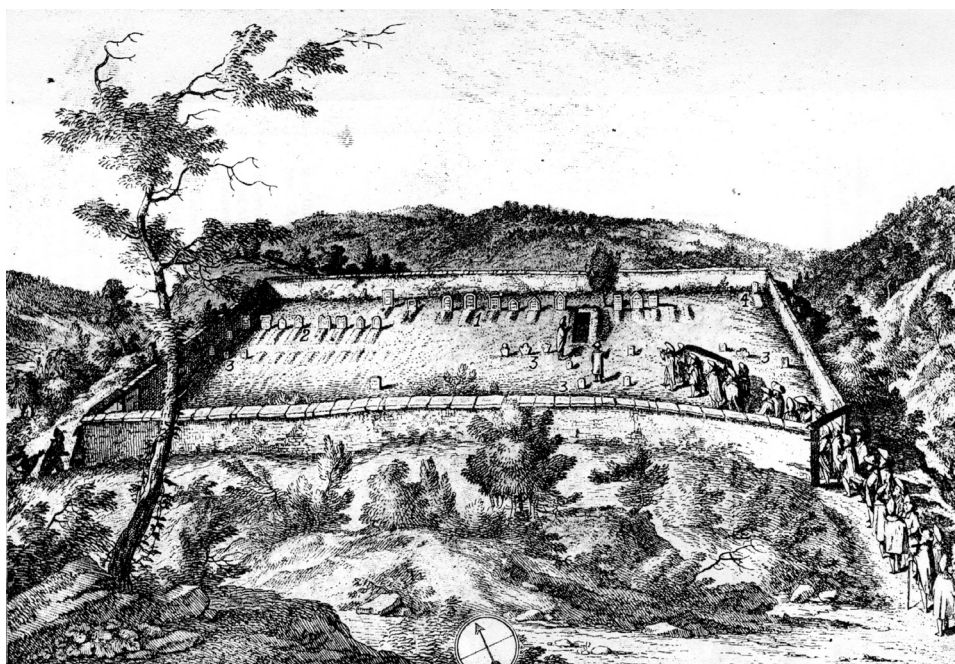
recognition of sexes comes up against numerous biases (juvenility of the individuals, state of preservation of the bones, precision of osteological methods). Very often, the proportion of individuals of undetermined sex is too high to allow a study to be assured of the representation of the archaeological population. The use of DNA analysis offers a new hope. Nevertheless, it requires the ability to excavate, collect, and analyse a representative sample without being forced to abandon or modify the excavation project.

Artefacts found at the cemeteries can be divided into four separate categories:

- 1) objects related to the architecture of the tomb/ construction of the coffin and the mode of burial;
- 2) objects strictly deposited with the deceased (grave goods);
- 3) items worn by the deceased (adornment or in relation to clothing);
- 4) artefacts that were found by chance in the filling of the grave, not necessarily linked to the burials.

The first category quite frequently yields artefacts such as nails or pins and the last category is the result of chance action or previous activity on the site. Therefore, none of them should be qualified as grave goods. The study of the other two categories is, however, much more interesting. Indeed, in Jewish culture, grave goods that are placed in the tomb and not worn by the deceased are quite rare. Thus, the Christian practice of depositing one or more vases in the graves (holy water, charcoal and incense...) is not found in Jewish graves. The only such deposits that can be observed in the case of Jewish burials are objects that could have a symbolic function, related to the activity, duties, or profession of the deceased (key, scissors, knife, scale weight in Rome, Basel, or Bologna). It would also be appropriate to add the funerary cushions that were placed in the coffins, when they could be identified (Basel and Toledo). These cushions are most likely a symbolic reminder of the virgin soil, as demonstrated by the analyses and observations made at the Swiss and Spanish sites. However, it could also be a device intended to support the head of the deceased in a specific position.

The category related to ornaments and clothing is by far the most important of the grave goods found in Jewish cemeteries. However, its proportion remains low in relation to the number of excavated tombs. They often consist of rings, wedding rings, bracelets, necklaces, pendants, or earrings. Their presence is, in general, more important on sites belonging to Sephardic cultural areas. Items related to clothing are almost non-existent and could demonstrate that, if they were present, they decomposed without leaving any trace. The only thing that recurs



**Fig. 24.** View of a procession in a Swiss Jewish cemetery between Lengnau and Endingen in the 18<sup>th</sup> century. The caption of the engraving mentions rows reserved for men, others for women and others for children. Source: Ulrich 1768 in *Jewish Encyclopædia*, sd. III, 639.

in this category, in sites of both Sephardic and Ashkenazi cultures, is the presence of textile residues on the skulls of the deceased (Basel, Barcelona, Seville, and possibly Tarrega). However, it is difficult to determine whether these are elements of adornment (headdress or headband) or whether they could be related to the mode of burial (shroud?) or even the deposit of artifacts such as the tallit which, in today's male graves, accompanies the deceased. It should be noted that the preservation of these textile fragments could be linked to the presence of metallic threads whose oxides have migrated into the fabrics and thus favoured their preservation. The remains found are never large in male tombs and the hypothesis of a prayer shawl is a proposal that is only evoked in relation to current practices. There is no evidence that it existed in the medieval period.

## CONCLUSION

In conclusion, these syntheses betray, first of all, the concern of these communities to bury according to a particularly rigorous organisation and management. A certain form of homogeneity in practices emerges, suggesting a mortuary and funerary ritualisation that seems to have evolved without fundamental modification.<sup>54</sup> It is possible that this feeling of uniformity was accentuated by the establishment of specialised brotherhoods (*Chevra Kadisha*), possibly appearing in Spain around the 13<sup>th</sup> century,<sup>55</sup> but the similarity of practices throughout Europe could be traced back to a little earlier, in similar forms.<sup>56</sup>

<sup>54</sup> Goldberg 1989, 26.

<sup>55</sup> Goldberg 1989, 113.

<sup>56</sup> Some historians suspect that religious and charitable societies may have been at the origin of medieval religious

Finally, it should be stressed that Jewish burial sites excavated, studied, and published correctly in Europe are rare. It should be noted that while this scarcity is largely related to medieval Jewish communities that represented only a small percentage of the total population,<sup>57</sup> it is also accentuated by present-day Orthodox groups that refuse to allow research to be conducted on individuals using Jewish laws and an eschatological view of death as a pretext, without taking into account current secular contexts and laws. Reference sites, until now, more numerous in Spain. It is therefore difficult to draw up generalisations for a vast territory, country, or continent. However, the last twenty years have shown that new sites have been discovered regularly. It is to be hoped that this will continue and that a compromise will be found between science (archaeologists) and religion (Orthodox Jews)<sup>58</sup> in order to better understand these ancient communities which are too often approached only from the point of view of textual sources.

## DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

brotherhoods as early as antiquity, Goldberg 1989, 31, 110-111.

<sup>57</sup> For example, in France, historians and demographers estimate that they represented less than 1% of the total population in the 13<sup>th</sup> and 14<sup>th</sup> centuries, Schwarzfuchs 1975, 89; Dupaquier 1988, 261; Benbassa 1997, 53.

<sup>58</sup> This controversy between science and religion was discussed at a symposium in 2009 in Barcelona with different examples: *Archaeological Intervention...* 2012

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