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Human skeletons showing traces of violence discovered in disused medieval wells: two case studies

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Abstract

In Normandy, near Rouen, in Tournedos-sur-Seine and Val-de-Reuil, two adult skeletons thrown into wells during the Middle Ages have been studied. The wells are located at two separate sites just 3 km apart. Both sites consist of clustered settlements inhabited from the seventh to the tenth century and arranged around a cemetery. The backfill of the well shafts contains animal remains, but also partially or completely articulated human bodies. In Val-de-Reuil, the incomplete skeleton of a man, probably representing a secondary deposition, had traces of a violent blow on the skull, certainly with a blunt weapon. In Tournedos-sur-Seine, a woman thrown in headfirst had several impact points and bone fractures on the skull that could have been caused by perimortem mistreatment or a violent death. After a detailed description of the two finds and a contextualisation in the light of similar published cases, we will discuss the possible scenarios for the death and deposition of the individuals as well as their place in their communities.

Key words: Middle Ages, wells, dumps, Normandy, violence

Introduction

When a water well falls into disuse, it is normally filled in fairly quickly. Archaeological finds of human remains in the backfill of the well shafts are worthy of note, especially when they involve articulated individuals¹ with characteristics (body position, traces of violence) that seem to suggest they did not end up there by accident.

Although finds of human remains in wells from the Neolithic period onwards are not infrequent, closer examination reveals a wide variety of deposition circumstances. Such finds range from isolated bones removed from a corpse that

decomposed elsewhere all the way to more or less articulated partial or complete skeletons. In the latter case, we can distinguish between deliberate burial in a well that may or may not have been built for that purpose, on the one hand, and unceremonious dumping of a body, on the other.

For archaeologists, this kind of discovery is always a surprise, and excavation and analysis methodologies must be adapted accordingly. Sometimes the human remains are commingled with animal remains and are not identified until they are processed in the laboratory. In such cases, the lack of taphonomic observations (how the body decomposed and any later disturbances) complicates the reconstruction of deposition circumstances. Even when an anthropological analysis is begun in situ, a complete or partial human skeleton found in an abandoned well can be difficult to interpret. As a result, there are not many studies of the circumstances of such deposits, particularly for the medieval era.

In western Normandy, two examples just 3 km apart share certain characteristics that make it possible to discuss the causes of death and the reasons why the bodies were excluded from community cemeteries. The remains were found in two archaeological sites located in a loop of the river Seine at its confluence with the Eure, around 25 km upstream of Rouen. They were excavated as part of a rescue dig in advance of aggregate extraction works in Val-de-Reuil (Le Chemin aux Errants, Figure 1) in 2011–12² and in Tournedos-sur-Seine–Porte-Joie (La Butte Saint Cyr, Figure 2) from 1986 to 1992.³ Both sites consisted of clustered settlements inhabited from the seventh to the tenth century and arranged around a contemporary cemetery.

Val-de-Reuil

Site description

The area studied in Val-de-Reuil, ‘Le Chemin aux Errants’ (Figure 1), covered 7.5 ha. The site was occupied in several successive phases. The first phase consists of a huge Gallo-Roman residence with associated non-residential buildings that was dismantled in the third century and then partially rebuilt during the fourth century.⁴ Another settlement, small and scattered, appeared in the sixth century. A century later a cemetery was added in the middle of the village. The cemetery, which remained in use until the tenth century, contains 223 graves. There are also around twenty other burials scattered around the settlement. They are distributed unevenly, with concentrations in specific areas, particularly within contemporary groups of houses. Some graves even cut across abandoned domestic structures.⁵ As recent studies have shown,⁶ although the people in these graves were buried outside the community cemetery, they were probably not marginalised while alive. They include individuals of all ages and sexes and received the same funerary treatment as people buried in the community cemetery.

The individual in well 3673

A well⁷ in use during the seventh century was abandoned between the ninth and tenth centuries, as was the section of the settlement where it was located.⁸

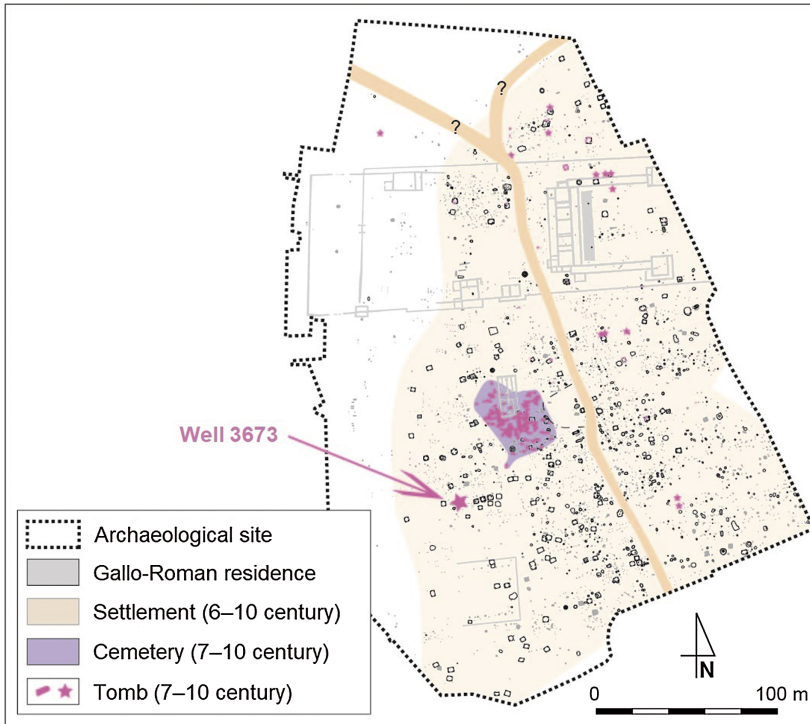


Figure 1 Map of the Val-de-Reuil site (CAD: S. Le Maho and F. Carré).

The remains of a man, radiocarbon dated to between 780 and 970,⁹ were found between 1 and 1.5 m deep in the upper part of the shaft fill. They were in a layer with abundant animal bones,¹⁰ including three complete but totally disarticulated skeletons (Figure 3). A young pig, 6–7 months old, with cut marks on the bones can be classed as food waste, while a juvenile cat and an adult dog may have been household animals disposed of after death.

The man's right femur and left hip bone were removed during the excavation before they had been identified as human. The skeleton consists of part of the skull, the cervical vertebrae (except the third and the body of the seventh), the last thoracic vertebra, the lumbar vertebrae, the sacrum, the hip bones and the right femur. Some bones remained almost connected (lumbar spine and pelvis). The skull, part of which was underneath the pelvis, was lying with the base upwards.

The high number of small bones present in the three animal skeletons makes it unlikely that they decomposed elsewhere before being placed in the well. In contrast, the absence of part of the human skeleton poses several questions. We can rule out the possibility that the missing bones slipped down to lower levels because the well was excavated in its entirety. The human remains may have been unburied

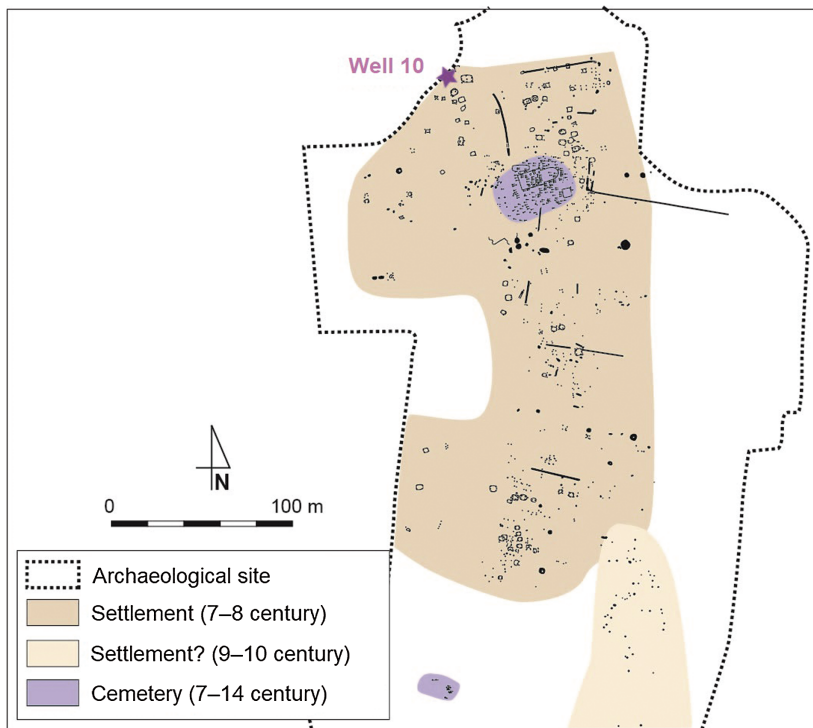


Figure 2 Map of the Tournedos-sur-Seine site (CAD: F. Carré).

and accessible to scavengers for some time after being thrown into the shaft. If so, scavengers would have removed some of the bones from the body while it was in its original position. Two things argue against this interpretation, however. First, the bones show no traces of this kind of scavenger activity. Second, and more importantly, the absence of large parts of the body – part of the legs, the feet, the upper limbs and ribs – supports the hypothesis that the body was already partially disarticulated, and perhaps partly decomposed, when it was deposited. The connections still in place (particularly those in the lumbar spine and the pelvis) are among those that tend to survive for a particularly long time when a body decomposes. Moreover, there are two possible explanations for the surprising position of the skull, which was found under the pelvis. It could have been displaced because of the particular characteristics of well fills, which are often composed of a mixture of heterogeneous materials (undergrowth, earth, pebbles and so on) that form plugs and then give way after a while. Alternatively, the skull was deposited before the rest of the body. The incompleteness of the skull (the face, mandible and part of the cranium are all missing) supports the latter hypothesis, according to which the skull, like the rest of the body, was only partly recovered before then being deposited (thrown?) in the



Figure 3 Well 3673 of the Val-de-Reuil site with the remains of a man (Photo: A. Thomann).

well. If so, the man may previously have been given a burial. The primary deposition location remains unknown, but it is important to note that the bones do not show any traces of animal teeth, which are often found on bodies that have decomposed in the open air.

How should this secondary deposition in an abandoned well be interpreted? Disposal of an inconvenient body in various places, the exhumation of a body in the process of decomposition, a practice that had to do with magic,¹¹ etc.?

The anthropological characteristics of the man are relevant to the attempt to reconstruct what happened. This mature,¹² adult man, who had polyarthritis, had an unhealed posterior skull fracture. He had clearly received a violent blow that created an opening, 18 cm long, in the occipital bone and part of the sagittal suture and fractured the skull in half (Figure 4). It is highly likely that this clean, thin break in a particularly robust part of the body was caused by a blunt weapon. Moreover, an impact point on the right parietal bone caused a splinter to detach from the inner surface of the skull. There is a strong probability that these perimortem injuries were the cause of death.

Other individuals found at the site show signs of having died as a result of stab wounds or blunt weapon trauma,¹³ but they were buried in the cemetery. The manner of death, therefore, was not the only reason why the man was deposited in the well.

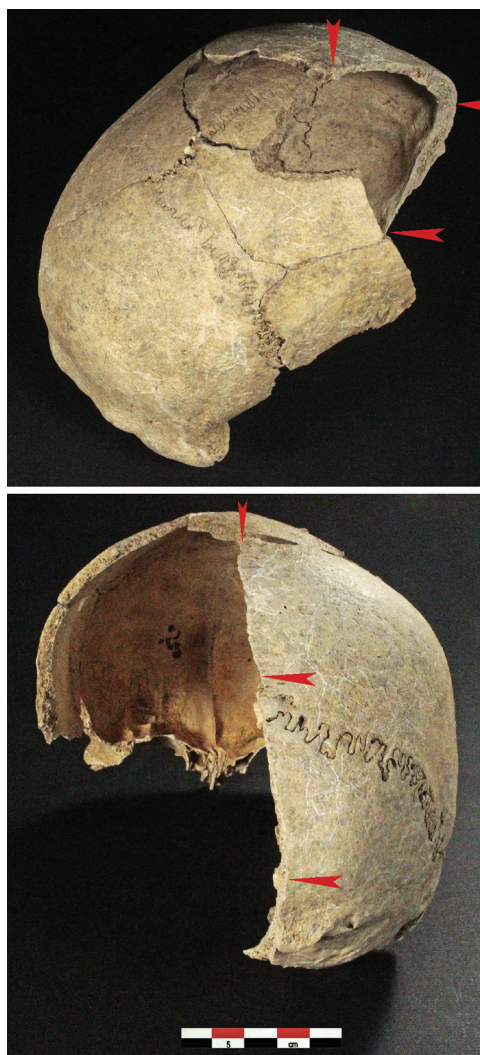


Figure 4 Skull of the man of Val-de-Reuil with an unconsolidated fracture, probably a stab wound that sliced the back of the skull vertically; the arrows indicate the cut (Photos: S. Le Maho).

Tournedos-sur-Seine–Porte-Joie

The rescue dig in Tournedos-sur-Seine–Porte-Joie, ‘La Butte Saint-Cyr’,¹⁴ was focused particularly on an early medieval settlement.¹⁵ A clustered settlement was established around the middle of the seventh century¹⁶ in an area of approximately

3 ha. Towards the end of the eighth century, the settlement shifted further south but still covered the same ground area (see Figure 2). The excavated area was abandoned no later than the end of the tenth century, undoubtedly in favour of a settlement on the banks of the Seine, where the modern-day village of Porte-Joie is located.

The seventh- and eighth-century settlement had an area in the centre set aside for burials. In the eighth century it was equipped with a church on wooden posts that was completely rebuilt in the thirteenth and fourteenth centuries.¹⁷ The church and cemetery continued to be used after the village moved to its new location, but they gradually fell into disuse from the middle of the fourteenth century.¹⁸ From those eight centuries of burials, 1,657 primary burials have been preserved, at least 134 of which are from before the eleventh century.

Although the cemetery was the main burial location, two other small clusters of graves near the village were used contemporaneously until the middle of the eighth century. There were also some burials within the settlement area. The funerary practices for these burials hardly differ from those in the main cemetery, except for one individual discovered in a well who had not received the usual treatment.

Well 10

Well 10, with its dry-stone-walled shaft, is no different to any of the other ten pits at the site, whether Merovingian or Carolingian. Like the wells within the seventh- and eighth-century settlement, it seems to be associated with a group of structures, comprising several sunken-floored huts, that was probably a residential cluster. Like the other wells, it had been filled with predominantly non-refuse material.¹⁹ Around fifteen rows of stones had been removed from the shaft. Unfortunately, the well was not cleared all the way to the bottom during the dig, so some of its characteristics remain unknown.

The well belongs to one of the three seventh- and eighth-century occupation clusters that are closest to the cemetery and can be dated based only on this context. It may have been abandoned following the settlement's change of location towards the end of the eighth century. A later dating is also possible, however, because the well may still have been useful for activities carried out in the cemetery area 60 m away. Between the eighth and tenth centuries around fifteen pits along the western edge of the cemetery are evidence of some kind of activity to do with grain (storage?), perhaps products set aside as a tithe.²⁰ Moreover, the cemetery remained in use until the fourteenth century and it may have been useful to have a water source nearby. It is therefore impossible to know for certain when the well was filled in, but it was probably between the ninth and fourteenth centuries.

The individual in well 10

A human skeleton was discovered in the well at a depth of 3.5 m (Figure 5), 0.5 m below the skeleton of a young dog (not studied). The bones have not been radiocarbon dated and the chronology of the deposition remains unknown.



Figure 5 Well 10 of Tournedos-sur-Seine with the skeleton of a woman (Photo: É. Mantel).

The deceased individual was a fairly robust mature, adult woman²¹ whose skeleton is more complete than that of the individual in the Val-de-Reuil well.²² Even the small bones in the hands were still in place, leaving little doubt that the well was the woman's primary deposition location. The feet are missing, but they may have fallen further down the well (the shaft was not entirely emptied). The position of the body indicates that the individual was thrown in head first. The hip bone and the right femur, which are still mostly connected, are separated from the rest of the body. This could be the result of a secondary empty space formed by something that has since disappeared, a plank, undergrowth, etc. Nevertheless, the preservation of the connections between a substantial number of the bones of the axial skeleton, as well as the left side of the pelvis and the left lower limb, shows that most of the body was rapidly covered by sediment.

Analysis of the pathological lesions on the skeleton revealed signs of mild arthritis in the ribs, the pelvis and the left knee. There were also fractures on fresh bone visible on the skull, predominantly on the left side of the skull and on the face²³ (Figure 6). They could have been caused by the skull hitting a rock when the body

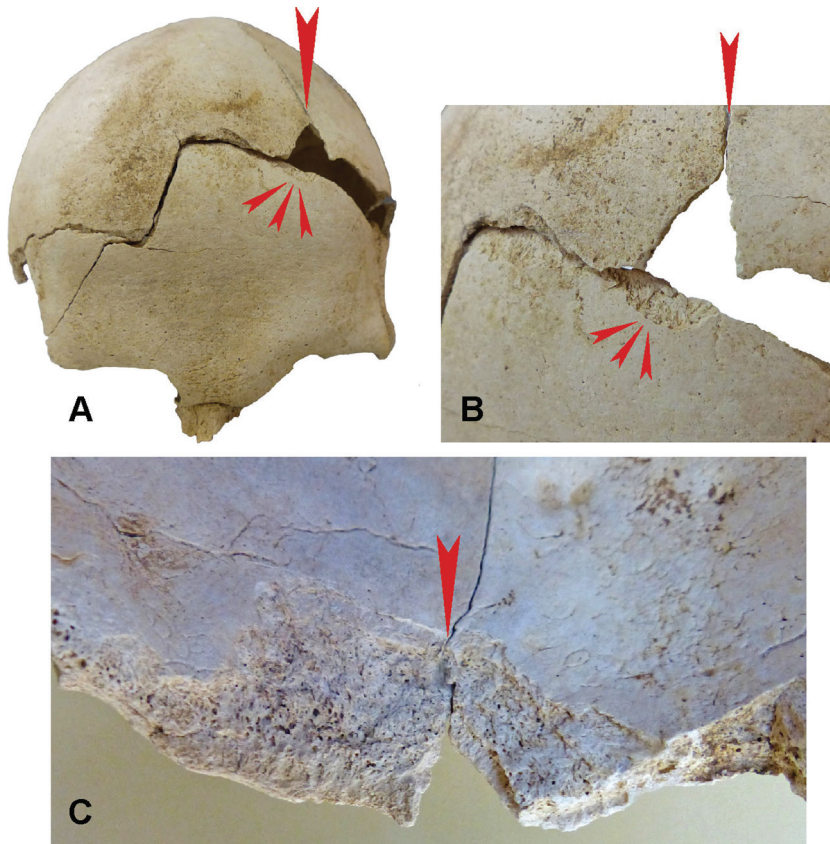


Figure 6 Perimortem lesions on the skull of the woman from Tournedos-sur-Seine. A – Anterior face of the frontal bone with fractures and fissures on fresh bone, the three arrows indicate the point of impact; B – Detail of the left part of the frontal bone and the point of impact; C – Trace of tearing of a splinter on the inner face of the skull (Photos: A. Thomann; CAD: F. Carré).

was thrown in, or by objects falling onto it afterwards. We know that the ‘fresh’ bone state sometimes lasts for several years after death, particularly in wet environments.²⁴ Nevertheless, the large number of impact points on the skull and the lack of impact points on the rest of the skeleton suggests, rather, that the individual received several blows to the head before being thrown into the well.²⁵ These injuries, probably perimortem, may be evidence of mistreatment and could even be the cause of the individual’s death. As the individual is a woman, her death is unlikely to be related to armed combat. It is entirely plausible that she was murdered or killed by mistreatment.

Discussion

These two finds in geographically and perhaps historically close contexts are similar: the remains of an individual were thrown into a well along with animal carcasses. They have one important difference, however. The completeness of the female skeleton in Tournedos-sur-Seine demonstrates that the well was the primary deposition location of the body. For the man in Val-de-Reuil, on the other hand, the absence of parts of the body, the position of the bones and the condition of the anatomical connections all point towards the secondary deposition of part of the body. The two individuals both have injuries, possibly perimortem, and may have suffered a violent death. Were the bodies thrown into a dump in the same way as other rubbish?

In Tournedos-sur-Seine, none of the eleven excavated wells had been used to dispose of household waste. Of the seventeen early medieval wells cleared in Val-de-Reuil, only one – around 40 m from well 3673 – had been filled with rubbish, predominantly butchery waste.²⁶ The other wells contained little food waste. In contrast, eight of them contained a total of eighteen animal carcasses.²⁷

Strictly speaking, therefore, disused wells were not used as everyday rubbish bins. Rather, they seem to have been a place to dispose of inconvenient bodies. We can assume that the disposal of a human body in a well was an example of this practice. A body disposed of in this way was deprived of burial and of the group's funerary rites. Treated no differently than an animal carcass, it was dehumanised. Its exclusion was total. It was not integrated into the community of the dead formed by the cemetery, despite being so close to it. Was this proximity deliberate? Even while concealing the body, did this deeply Christian society still want to let the deceased individual benefit in some small way from the blessings bestowed by the prayers of the living?

It is equally difficult to know whether the exclusion was the work of one person, a small group or the whole community.

The reason why the body was thrown into the well is also unknown. Two scenarios are possible. If the person was murdered, the most likely motive would be concealment. In that case, the body would have been thrown in by an individual, or by a small group, in order to keep the identity of the murderer or murderers secret.

In contrast, if the individual was killed openly and with the agreement of the whole community (for example, a defeated enemy), the exclusion of the body from the cemetery and its disposal in a well would be dictated by the individual's status. The dehumanisation of the body would, in that case, be accepted by everyone.

Unfortunately, the archaeological investigations do not allow us to identify which of these two possibilities is the correct one, so, for now, we can only lament that the exact circumstances of death cannot be reconstructed.

Similar published examples are relatively rare in historical times.²⁸ There are some from the Gallo-Roman period. Caution must be exercised when comparing them with our cases, however, because they are from an entirely different cultural, funerary and religious context. Roman funerary practices sometimes indicate a special relationship between dead people and butchery or knackery waste products

that were buried with them.²⁹ The cases we are aware of are listed in the notes for reference purposes.³⁰

Similar published cases in the medieval period are even scarcer than in Roman period. They must also be placed within a funerary and religious context that changed over time. In the early medieval period the choice of funerary rites was seen as a private matter, but starting in the ninth century the Church developed an in-depth Christian model of death and burial.³¹ The presence of human remains outside a cemetery is thus likely to have had a different meaning in the seventh than in the eleventh century. Nevertheless, in a world where the most common burial practice was to lay the body on its back in a grave or perhaps in a container (box, coffin or sarcophagus), individuals discovered in a well are worthy of note. They also seem to have been extremely rare. In one unpublished case³² near a priory church in Souvigny, Auvergne, the lower half of an upright skeleton was found in the fill of a well from the eleventh and twelfth centuries. Another example, at Entrains-sur-Nohain, stands out because of its size. Around fifty men, women and children were thrown into a well between the eighth and tenth centuries.³³ The circumstances of their deaths, whether massacre or epidemic, will probably be determined by anthropological and archaeological analysis. Similarly, a well was discovered in Norwich (England) in 2011 containing the skeletons of seventeen individuals, probably persecuted Jews, from the twelfth or thirteenth centuries.³⁴

Finally, we should bear in mind that the bodies of individuals denied burial may also be deposited in dump pits. In Poitiers³⁵ in the eighth century, a disused silo was used to dispose of the bodies of six children and two young adults whose skeletons showed traces of mistreatment that had caused the death of at least one of them. This case also raises the question of the social status of people deprived of burial. They may have been slaves.

In conclusion, it is difficult to fully explain the presence of human remains in well fills. A variety of methodological approaches were used to study the cases discussed above, ranging from a biological analysis of the bones (inspection for injuries) to a full reconstruction of the phases of decomposition of the body.³⁶ Nevertheless, features that can be used to understand the manner of deposition (accidental fall or deliberate throwing of a whole or partial body) are generally rare and do not really explain the reason for the exclusion.

The rarity of such cases shows that this practice was fairly uncommon in the Middle Ages. The examples from Val-de-Reuil and Tournedos-sur-Seine have in common with several other cases the fact that they involve individuals who were probably killed or mistreated and then thrown into structures at the edge of settlements that were also used to dispose of animal carcasses. The individuals were thus completely excluded from the community of the dead, and even perhaps concealed from public view. The presence of both a man and a woman shows that both sexes were affected by the practice. A person may have been denied burial, as certainly happened for the individual in Tournedos-sur-Seine, in order to conceal a criminal act or as a form of punishment for someone who had committed a crime resulting in exclusion from the community. In both cases, the aim was to dispose of a human body in the same way as an animal carcass. The study of other similar

cases would, we hope, shed more light on the circumstances behind the disposal of human beings in disused wells. More detailed anthropological (morphometric) analysis or isotopic or genetic analysis revealing the geographical origin of the killed or mistreated individuals might help to explain the reasons for their exclusion.

Notes

Translated and edited by Cadenza Academic Translations.

- 1 Individuals whose bones were preserved in their anatomical positions and not separated.
- 2 Head of operations: Yves-Marie Adrian.
- 3 Head of operations: Florence Carré.
- 4 Y.-M. Adrian *et al.*, 'Évolution d'un habitat alto-médiéval avec son cimetière: le cas du site du 'Chemin aux Errants' à Val-de-Reuil (Eure)', in I. Leroy and L. Verslype (eds), *Communauté des vivants, compagnie des morts, actes des 35^e journées de l'Association française d'archéologie mérovingienne* (Saint-Germain-en-Laye, Mémoires de l'AFAM 33, 2017), pp. 109–20.
- 5 It was possible to date twelve of these twenty burials (carbon-14 and grave goods). They range from the last third of the sixth century to the end of the tenth century and are all potentially contemporaneous with the period of use of the cemetery (Y.-M. Adrian *et al.*, *Val-de-Reuil, 'Le Chemin aux Errants' (zone C), Rapport de fouille* (Caen, Service régional de l'archéologie de Normandie, INRAP, 2015), vol. 3, pp. 780–5).
- 6 L. Pecqueur, 'Des morts chez les vivants. Les inhumations dans les habitats ruraux du haut Moyen Âge en Île-de-France', *Archéologie Médiévale*, 33 (2003), 1–31; M. Gaultier, 'Les sépultures en contexte d'habitat sur les sites ruraux médiévaux en région Centre: état de la question', in S. Jesset and A. Nissen-Jaubert (eds), *PCR L'habitat rural du Moyen Âge en région centre* (Orléans–Tours, 2014), pp. 28–73.
- 7 The base of the well was arranged with blocks recovered from Roman buildings and a dry-stone-walled shaft.
- 8 The residential area moved further east (Adrian *et al.*, *Val-de-Reuil, 'Le Chemin des Errants' (zone C)*, vol. 3, p. 926).
- 9 Beta-372198, 1080+/- 30 BP, 95 per cent probability, calibrated dates: AD 780–900 and 920–70.
- 10 Among the fauna found in the fill, the principal taxa were cow, pig, caprines, cat and dog. As a percentage of the number of remains: 13.46 per cent cow, 14.42 per cent pig, 16.35 per cent caprines, 24.04 per cent dog and 24.04 per cent cat. The other taxa were 0.96 per cent horse, 2.89 per cent batrachian, 2.89 per cent cockerel and 0.96 per cent hedgehog. Adrian *et al.*, *Val-de-Reuil, 'Le Chemin des Errants' (zone C)*, vol. 4, tome 2, p. 759.
- 11 Divinatory magic was important in the Middle Ages, but it is difficult to detect its impact archaeologically. J. Véronèse, 'La magie divinatoire à la fin du Moyen Âge', *Cahiers de recherches médiévales et humanistes*, 21 (2011), 311–41.

- 12 More than forty years old, according to Aurore Schmitt's method. A. Schmitt, 'Une nouvelle méthode pour estimer l'âge au décès des adultes à partir de la surface sacro-pelvienne iliaque', *Bulletins et Mémoires de la Société d'Anthropologie de Paris*, 17:1–2 (2005), 89–101.
- 13 One man died following a sword blow to the head, one died shortly after his left temple was pierced (by a crossbow bolt?) and another died shortly after being stabbed around ten centimetres above the left ear.
- 14 The rescue dig spanned several communes. It began in Tournedos-sur-Seine and then moved into Val-de-Reuil, a new town, which was allocated land originally belonging to Porte-Joie; the land was returned to Porte-Joie several years ago.
- 15 F. Carré and M. Guillon, 'Habitat et nécropole de Porte-Joie: le site de Tournedos/Val-de-Reuil (Eure), 7^e–14^e siècle', in *L'habitat rural du haut Moyen Âge, actes des 14e Journées internationales d'Archéologie mérovingienne, Guiry-en-Vexin et Paris, 4–8 février 1993*, Saint-Germain-en-Laye, Mémoires de l'AFAM 6 (1995), pp. 145–58.
- 16 Probably no later than 650, as shown by the carbon-14 dating of grave 1007 (Ly-14647, 95 per cent probability, calibrated dates (IntCal20): AD 568 to 650).
- 17 I. Catteddu *et al.*, 'Fouilles d'églises rurales du haut Moyen Âge dans le nord de la France: des questions récurrentes', in D. Paris-Poulain and D. Istria (eds), *Les premiers temps chrétiens dans le territoire de la France actuelle. Hagiographie, épigraphie et archéologie, actes du colloque d'Amiens, janvier 2007* (Rennes, Presses universitaires de Rennes, 2009), pp. 205–28.
- 18 Inside the church, grave 235, the last detectable burial, contains a Beauvaisis stoneware jug dating from the fifteenth century.
- 19 The only bits of refuse were a cow rib and a fragmented caprine radius (J.-H. Yvinec, CRAVO).
- 20 F. Carré, M.-P. Ruas, J.-H. Yvinec and N. Marcoux, 'Le site rural de Porte-Joie (Tournedos-sur-Seine/Val-de-Reuil, Eure, France): des espaces particuliers au sein de l'habitat du haut Moyen Âge', in I. Catteddu, P. De Vingo and A. Nissen-Jaubert (eds), *Archeology and Rural Landscape: Rural Settlements in Their Natural Economical and Social Environment. Actions of the Convention Medieval Europe, l'Europe en mouvement, 4e congrès international d'archéologie médiévale et moderne, Paris, 3–8 sept. 2007* (Gênes, De Ferrari, 2011), pp. 101–24.
- 21 Determination of sex using DSP (P. Murail *et al.*, 'DSP: a tool for probabilistic sex diagnosis using worldwide variability in hip-bone measurements', *Bulletins et Mémoires de la Société d'Anthropologie de Paris*, special issue 17:3–4 (2005), 167–76). Estimation of age of over forty using Aurore Schmitt's method: Schmitt, 'Une nouvelle méthode'.
- 22 The body included part of the skull (cranium, zygomatic bones and left hemimandible), the lower limbs except for the fibulas and the feet, the upper limbs (except for the distal part of the right humerus), part of the left scapula and clavicle, hand bones, the right hip bone, the left pubic bone, the sacrum, the sternum and the ribs; the spine had been removed in situ but could not be found during the study.
- 23 Endo- and exocranial splinters are visible on the left parietal bone and the left side of the frontal bone. The left zygomatic arch has a full break that probably occurred

- when the bone was fresh. The mandible seems to have a full break near the left mandibular foramen, also on fresh bone (the rest of the mandible is missing).
- 24 B. Boulestin, *Approche taphonomique des restes humains. Le cas des mésolithiques de la grotte des Perrats (Agris, Charente)* (Doctoral thesis, Université de Bordeaux, vol. 1, 1998), p. 101.
 - 25 This interpretation still requires caution because the breaks observed are not in the typical locations and the skull is incomplete, which skews the analysis.
 - 26 Well 3350 also contained the bodies of adult and juvenile cats (Adrian *et al.*, *Val-de-Reuil, 'Le Chemin aux Errants' (zone C)*, vol. 4, tome 2, pp. 587–9).
 - 27 The number of cat and caprine bodies is not specified. The actual number of bodies in the wells is certainly much higher than eighteen.
 - 28 We have chosen to exclude cases of perinatal infants discovered in wells because their social status was completely different from that of adults or even of older children. The disposal of their bodies has more to do with the management of perinatal mortality or infanticide, topics that are not relevant to the Normandy cases. We have also restricted our comparisons to French sites in order to remain within a culturally comparable area.
 - 29 S. Pluton-Kliesch, C. Bémilli and S. Lepetz, 'La nécropole du "Clos-au-Duc" à Évreux (Eure). Mise au point sur l'interprétation du site', in *Journées archéologiques de Haute-Normandie. Rouen, 3–5 avril 2009* (Mont-Saint-Aignan, Presses universitaires de Rouen et du Havre, 2010), pp. 134–52, <http://books.openedition.org/purh/6869>.
 - 30 Chartres: four children aged between thirteen and fifteen in a well filled in in the third century AD, no signs of violence. Burial in the well or disposal of bodies? (J. Viret, *Aménagements de fond de parcelle à l'époque gallo-romaine. 6, ruelle du Grand-Sentier. Chartres (Eure-et-Loire). Rapport de fouille*, Service archéologique de la ville de Chartres, 2014, pp. 164 and 169). Lattes: two wells filled in in the first century AD contained human remains; in one, two adult men who had been thrown in along with animal carcasses; in the other, an adult male and a perinatal infant; the adults in both wells had ante- and perimortem fractures (S. Duchesnes and J. Treil, 'Analyse de trois squelettes humains et de restes de nouveau-nés', in G. Piquès and R. Buxó, *Onze puits gallo-romains de Lattara (1er s. av. n.è. – 2e s. de n. è.) Fouilles programmées 1986–2000* (Lattes, ADALR, Lattara, 18, 2005), pp. 335–44). Paris: an anatomically connected skeleton of a man with no noteworthy pathologies (G. Auboire, 'Les découvertes archéologiques de la région Parisienne étudiées d'un point de vue anthropologique', *Bulletins et Mémoires de la Société d'Anthropologie de Paris*, 13^e série, tome 9 fascicule 1 (1982), 61–2). Tournus: two wells each containing the incomplete skeleton of a man (second century) in layers of refuse with many animal bones, including equids. No pathologies except a scarred trepanation (R. Perrot, 'Étude anthropologique de vestiges humains provenant de deux puits gallo-romains (Tournus, Saône-et-Loire)', *Documents des Laboratoires de Géologie de la Faculté des Sciences de Lyon*, 45 (1971), Notes et mémoires, 131–48). Beauvais: a man who fell or was thrown into a well in the third century (A. Augias *et al.*, 'Ante-, péri- ou post mortem? Profil de fracturation en contexte humide: le cas du dépôt en puits (2^e–3^e siècles après J.-C.) de la place du

- Jeu-de-Paume, Beauvais (Oise), *Bulletins et Mémoires de la Société d'Anthropologie de Paris*, 29 (2017), 112–16. Ehl: a man whose body had decomposed in the water of a well filled in in the second century (E. Boës, 'Un exemple de privation de sépulture: le squelette du puits 1 de Ehl (Bas-Rhin)', *Revue Archéologique de l'Est*, 46 (1995), 143–6). Autun: ninety-eight human bones commingled with animal bones in a well filled in in the third century (I. Rodet-Belarbi et I. Séguy, 'Mal enterrés et mal rangés: le cas des squelettes humains sans sépulture en France gallo-romaine et médiévale', *Archéopages*, hors série 3 (2012), 168–72). There are also some cases in the United Kingdom: M. Beasley, 'Roman Boundaries, Roads and Ritual: Excavations at the Old Sorting Office, Swan Street, Southwark', *Transactions of the London and Middlesex Archaeological Society*, 57 (2006), 23–68.
- 31 C. Treffort, *L'église carolingienne et la mort* (Lyon, Presses universitaires de Lyon, 1996).
 - 32 Excavation of cours Jean-Jaurés in Souvigny (Allier) by the departmental archaeological department. Head of operations: Sophie Liégard. www.lamontagne.fr/souvigny-03210/loisirs/un-squelette-retrouve-dans-un-puits_1222491/.
 - 33 Information kindly provided by C. Fossurier (C. Fossurier *et al.*, 'Enregistrement photogrammétrique appliqué à une fouille préventive urgente; le puits du site "17 rue de la Voie Romaine" à Entrains-sur-Nohain (Nièvre)', in S. De Laraminat, R. Corbineau, A. Corrochano, Y. Gleize et J. Soulat (eds), *Rencontres autour des nouvelles approches de l'archéologie funéraires. Actes de la 6^e Rencontre du Gaaf* (Paris, INHA, 2017), pp. 243–6).
 - 34 <https://sites.google.com/site/norwichbones/>.
 - 35 V. Gallien, Y. Darton and F. Gerber, 'Exclus du droit à la sépulture: image d'un groupe social au Moyen Âge (Poitiers, dernier quart du 8^e siècle)', in M. Lauwers and A. Zémour (eds), *Qu'est-ce qu'une sépulture? Humanités et systèmes funéraires de la préhistoire à nos jours. 36^e rencontres internationales d'archéologie et d'histoire d'Antibes* (Antibes, APDCA, 2016), pp. 225–40.
 - 36 Boës, 'Un exemple de privation de sépulture.'