ANTHROPOLOGIE • LII/3 • pp. 247–262 • 2014

PHILIPPE CHAMBON, CORINNE THEVENET

COFFINS AND STRETCHERS IN MIDDLE NEOLITHIC BURIALS: A COMPARATIVE STUDY OF THE PARIS BASIN AND THE UPPER RHINE PLAIN

ABSTRACT: The taphonomic approach remains the best way to detect the presence of organic materials that have disappeared. The use of mobile, rigid containers can be identified despite the fact that they were composed of perishable materials. Starting from corpse decay, the initial presence of such elements can gradually be recognised. Though the first Neolithic containers identified come from the Linear Pottery Culture, they are especially distinctive for the Middle Neolithic, Mittelneolithikum*, on the Upper Rhine plain as well as at Cerny in the Paris Basin. The anteriority along the Rhine indicates the direction of spreading. The main lines of the burials in the two areas are identical. The decomposition of these bodies took place in an empty space. The* effets de paroi *frequently noted on the sides of skeletons indicate the use of a type of architecture distinct from the pit. The sliding or collapsing of the bodies against the container wall suggests that the container was mobile. Moreover, in some cases, an arm, a forearm or a hand exited the container, implying that it was not closed. The final observed internal arrangements can also include support for the head and grave goods. The development of conditions for reaching the most complex interpretation implies that the cases where the use of such a device cannot be demonstrated should not necessarily be regarded as different. In each stage, the interpretation requires a convergence of elements, representing a happy coincidence. Finally, the results of the taphonomic analysis must be contrasted with other approaches, such as sediment analysis using micromorphology, which has been shown to be very promising in a burial context. The disappearance of organic material is clearly not an impediment to the reconstruction of the initial grave. The use of containers for burials in closed areas at the same time assures a common origin for the layout. It also reinforces the link between the use of such containers and the shift toward employing a stretched position in burials.*

KEY WORDS: Taphonomy – Burial container – Effet de paroi *– Middle Neolithic*

Received 15 July 2013; accepted 25 March 2014.

INTRODUCTION

Taphonomic analysis has apparently become the keystone of all burial studies today, at least for French scholars. This type of analysis is often thought of simply as a means of revealing the environment of corpse decomposition, but its purpose goes far beyond this (Duday *et al*. 1990). While the starting point is indeed the skeleton in its environment, the aim is to attempt to reconstruct the body in the grave, i.e. to determine all of the details of the preparation of the corpse and its deposition in the grave, such as any clothing or envelopment involved and the placement within a coffin. The taphonomic approach is still the best way to detect the presence of organic materials that have disappeared (Duday, Masset 1987, Duday, Sellier 1990). It enables interpretation of the effects of the corpse's surrounding environment on its evolution and on the final position of the bones (Poplin 1975) through observation of *effets de paroi* (wall effects) and *effets de contrainte* (constraint effects) (Duday 1995, Leclerc 1975).

In this manner, the presence of rigid, mobile containers can be identified, despite the fact that they were composed of perishable materials that have nearly always disappeared due to temperate climatic conditions. Recognising that corpse decomposition took place in an unfilled space is the first stage in identifying such containers, but their presence can only be determined by searching for constraints affecting all or part of the skeleton. Furthermore, to conclude that the whole body was originally "contained", these constraints must suggest rigidity and must concern a sufficient portion of the skeleton. Although an *effet de paroi* on one long side of the skeleton would appear to be the most relevant characteristic, the determination of whether a rigid container existed is ultimately based on the interpretation of various convergent data. The mobile criterion is the most nuanced issue, particularly starting from motionless remains (Chambon 1997). Evidence of narrowness can provide an indirect clue, as it is easier to manipulate a narrow container than a wide one, but the compression of the body against one longitudinal wall is a more suitable criterion, as it usually reflects the sliding of the body within the container while being lowered into the pit. Finally, there is the question of whether a closed container or an open one was used. In the latter case, the container cannot be the cause of the unfilled environment during decomposition, which implies the existence of additional construction inside the pit. Thus, taphonomic analysis must be combined with the study of the characteristics of the grave: pit morphology, traces of architecture (e.g. casings, pit linings), and internal arrangements all have to be taken into account.

Beyond the reconstruction of burial layout, this paper aims to show how the reconstruction enlightens the funerals. The case study of Middle Neolithic is particularly relevant in this perspective: a shift in burial position reveals a new conception of the funerals. The use of mobile containers during the Middle Neolithic is examined from the comparison of the available data of

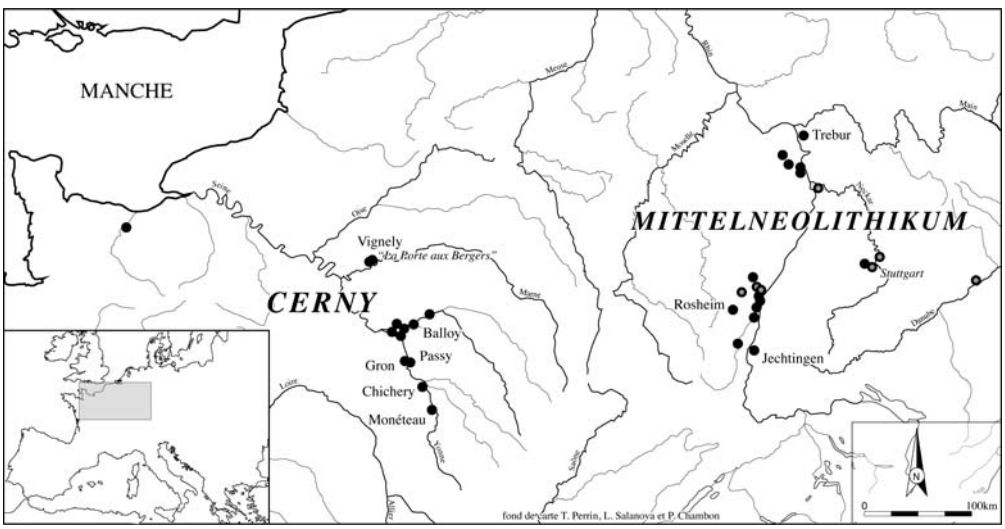

FIGURE 1. Cemeteries with stretched burials in the Paris Basin and the Upper Rhine plain. Grey points correspond to Linear Pottery sites. Only the sites mentioned in text are named.

two distinct areas: the Paris Basin and the Upper Rhine plain. The burials presented here date to the 5th millennium, from between 4900 and 4600 cal BC for the Upper Rhine and slightly later for the Paris Basin, from 4700 to 4400 cal BC (*Figure 1*). These are unique areas and time periods of the European Neolithic where the stretched position was used for individual burials. The link is obvious: it assumes the existence of some common references for burial practices, in spite of cultural differences. However, does the stretched position correspond to a unique pattern, and does it concern all individuals in the two areas? Considering differences in archaeological data, how can we delineate what is due to the layout itself, to taphonomy or to specific arrangements in the grave?

THE FIRST BURIAL CONTAINERS IN THE NEOLITHIC

Primary burials are the predominant mode of deposits found in the Linear Pottery Culture (c. 5500–5000 cal BC), although cremation is also used in several regions, together with inhumation. Simple pit burials have mostly been reported, with the pit immediately being filled after deposition (Boës 2000, Jeunesse 1997). The pit was generally dug in an oval shape corresponding to the size of the deceased in a crouched position on his back or on one side, usually the left side. As taphonomic analysis has rarely been implemented in Linear Pottery research, most of these observations are based on interpretation rather than hard evidence.

When taphonomic analysis was applied (first by F. Lambach to a grave in the cemetery at Ensisheim in Alsace), it appeared that the pit remained unfilled during the decomposition of the body (Lambach 1993). Furthermore, the initially inferred simplicity of the burial pits was largely due to a misunderstanding of their characteristics, at least in the Paris Basin. In fact the graves in this region have been found to exhibit a complex structure (*sépultures à niche* or niche graves), preserving a void around the body (Allard *et al*. 1997, Bonnabel *et al*. 2003, Thevenet 2004, 2010).

Amongst this large corpus, the Upper Rhine plain (Alsace, Baden-Württemberg) and, to a lesser extent, eastern Bavaria, differ from other Linear Pottery regions in the existence of stretched burials within cemeteries. While such burials are rare at the scale of the Linear Pottery culture, they can constitute more than 50% of some cemeteries in Alsace. The stretched position is regarded as an exception to the general rule and is usually seen as a late phenomenon within the Linear Pottery Culture (Peschel 1992). The available grave goods are too scarce to confirm this chronology, but this position became the standard during the Upper Rhine *Mittelneolithikum* (Hinkelstein, Großgartach, Rössen). In any case, these two opposing burial positions imply distinct pit graves, if only in terms of the shape and size required for the body. Taphonomic analysis of some of these stretched burials has revealed the use of mobile, rigid containers (e.g. at "Viesenhäuser Hof", Stuttgart-Mühlhausen, Baden-Württemberg) (Thevenet 2012). Rather than a simple choice to use a new burial position, the adoption of the stretched position in several Linear Pottery cemeteries is linked to the introduction of the coffin in burial practices (Thevenet 2012). However, one problem still hinders our understanding of these burials: the limits of pits cannot be easily identified in the Upper Rhine loess. They are scarcely visible at the excavation surface, and only vague traces are observed at the depth corresponding to the skeleton. As these traces sometimes coincide with the edge of the rigid container reconstructed through taphonomic analysis, they could well be limits of the container, rather than pit limits. Furthermore, the grave goods found around the bodies are not sufficient to be able to use their distribution to estimate a minimum pit size. In fact, the shape, size, and organisation of burial pits remain almost unknown.

In the Paris Basin, this new burial arrangement appears as suddenly as in Upper Rhine plain, but later (Chambon 1997). Radiocarbon dating now places this shift at approximately 4700 cal BC, corresponding to the emergence of the Middle Neolithic in this area, with the Cerny Culture (Chambon, Thomas 2014). Due to the time-lag with respect to the Rhine, this innovation in the Paris Basin must be considered to have originated from the Rhine. Indeed, there are no signs in the previous period that might announce it, and the burial practices that accompany its use are clearly disconnected from earlier practices (Chambon 2012). Graves exhibiting a mobile container are found exclusively in some cemeteries, predominantly in others, and sporadically in some cemeteries with a different funerary *ambiance* (e.g. Monéteau Macherin, Augereau) (Chambon *et al.* 2009). At the scale of the Cerny Culture, they only represent half of the corpus, with the remainder corresponding to the deposition of a crouched body without a container, a practice that may have been inherited from the Early Neolithic. Although a link between graves with mobile containers and Passy-type monuments is commonly made in archaeological publications, this conclusion must be tempered because the connection is far from

exclusive in both directions. This type of burial is also found outside of monumental contexts (e.g. at Chichery) (Chambon *et al*. 2010), and other types of burials within Passy-type monuments are known (as at Passy) (Duhamel *et al.* 1997). Another argument for not overestimating the link is the fact that no monumental cemetery is known from the Rhine area.

FROM THE IDENTIFICATION OF EMPTY SPACE TO THE RECOGNITION OF GRAVE ORGANISATION

Decomposition of the body in an empty space

Although the data from the Rhine cemeteries were not recorded with a taphonomic analysis in mind (in particular, there was little or no recording of levels), photographs enable the body's environment to be determined for the best-preserved skeletons. This determination requires the observation of bone articulations and their degree of connection as well as the general pattern of the bone distribution. For example, did the bones remain in an unstable position after the ligaments disappeared? Additionally, were the bones displaced from their anatomical position, and if so, were they inside or outside the initial volume of the body? Diagnosis of the decomposition environment is rarely simple: it requires ranking of the various lines of evidence and then setting out an argument.

Grave 112 from Trebur (Hesse) is a single burial from the Hinkelstein Culture (Spatz 1999) (*Figure 2*). As in all graves from Trebur, the limits of the pit were not visible in the subsoil. The deceased, an adult, lies in a stretched position; the lower limbs are parallel and extended; the upper limbs are slightly flexed, with the left limb positioned along the body, the right limb with the wrist on the right part of the pelvis. The various grave goods are mainly located on the left side of the upper body and are apparently not on the bottom of the pit. Bone preservation is relatively good compared to the rest of the cemetery. Although the long bones are preserved, their extremities are eroded, particularly on the lower limbs. However, the vertebral bodies as well as the body of the breastbone are preserved, except for the cervical vertebrae. Both hemithoraces are incomplete, particularly in their lower part. The small bones are the most poorly preserved: the hands and the left patella are missing, as are the distal foot extremities. Anatomical disruptions are numerous and concern distinct parts of skeleton.

The position of the skull appears anatomically impossible: in the right lateral and superior view, it is perpendicular to the axis of the vertebral column.

FIGURE 2. Burial 112 of Trebur, Hessen. The different ruptures of the joints accompanied by displacements beyond the initial volume of the body indicate decomposition of the corpse in a void. Photo by Landesamt für Denkmalpflege Hessen.

Slumped towards the right shoulder, the frontal bone touches the upper edge of the scapula, and the face touches the clavicle. Although the mandible is still in contact with the skull, the articulation is disjointed, with the right condylar process situated against the parietal bone. The left shoulder remains connected, with the notable exception of the clavicle, which has become vertical. Erosion of the long bone extremities makes it difficult to observe the left elbow, but the anatomical connection does not appear to be strict, at least for the ulna. To the right, the clavicle has remained close to its anatomical position; the joint with the scapula cannot be observed, but the scapula appears in lateral view. A loose connection is observed with the humerus, which appears in anterior view and is slightly lateral. However, the left elbow has come apart; the proximal extremity of the radius has slid in a medial direction. The radius and the ulna are parallel, the radius in posterior view and the ulna in lateral view. The left hip bone has fallen, whereas the right one has swung backwards, although not completely so, while the wrist rests on the iliac fossa. The situation appears to be the same for the lower limbs: the femurs are in anterior view, whereas the tibias have revolved laterally, more to the left than the right. The little that remains of the left foot has swung laterally, pulling along the leg; while the ankle joint has come apart, the talus and calcaneus are still connected and are in medial view. The right foot has dropped, although its connections are maintained, and the ankle articulation is loose.

Determining the decomposition environment is not difficult: the dislocation of the temporomandibular joint, the vertical left clavicle whose acromial extremity is outside the initial volume of the body, and the collapse of right ribs and the left hip bone are all arguments for the existence of a void around the body. Furthermore, the lateral slump of the legs and the left foot was due to the empty space around the body.

The skull position is more ambiguous. It is biomechanically impossible for the neck and suggests that there was first a break in the cervical column and then a forward shift of the skull, which was originally in a more upright position. However, one cannot rule out the possibility of disturbance, as the cervical vertebrae are missing.

Although it can be determined that the body clearly decomposed in an empty space, this is only the first stage of the analysis: it does not explain why some bones appear to be an unstable situation (the slight slump of the right hip bone, the constraint on the right foot, and the out-of-line position of the upper part of the body). The grave architecture remains undetermined, as does the mode of deposition of the grave goods, which are all located at a higher level than the skeleton.

A corpse deposited in a container

Due to the lack of material remains, the effects caused by the container on the skeleton are the only means of identifying its presence, implying that the container must have been relatively narrow. While longitudinal and symmetrical *effets de paroi* are the best evidence of a container, the bones can be affected by other constraints. Nevertheless, such evidence must indicate rigidity and to concern a sufficiently large portion of the skeleton to conclude that the whole body was in a container. As in determining the decomposition environment, the identification of a containing requires a balanced evaluation of several criteria.

The Jechtingen cemetery (Baden-Württemberg) (Dehn 1985, Dornheim 2011) is more favourable for taphonomic analysis than Trebur. Although bone preservation may be only slightly better, the subsoil sometimes enables the limits of pits to be identified. The limits of a single burial, grave 97, are nevertheless approximate, outlining a rectangular pit 2.10 m long and 0.90 m wide (*Figure 3*). The corpse lies stretched on its back along the pit axis. The skull is slightly upright, and the lower limbs are stretched out and parallel. The right upper limb is extended along the body, while the left is bent, with the hand on the stomach. The head is oriented to the west.

The skeleton presents numerous dislocations, and in several of these dislocations, the bones have shifted outside of the initial volume of the body. The most obvious such case is that of the left elbow, particularly the radius, which is disconnected from both ulna and humerus; 7 cm separate the olecranon and trochlea. The knees have come apart, with the tibias pivoting laterally. The movement is more pronounced for the right leg, which has been pulled by the lateral collapse of the foot; the patella has also collapsed laterally, and the talocrural joint is disrupted. In the left leg, there is less rotation of the tibia (it appears in medioanterior view), and the patella remains in its anatomical location. However, the left tibia and fibula are clearly separated. The left foot has collapsed into anatomical units: the metatarsal bones have collapsed in medial direction and flattened, whereas the talus has pivoted laterally (in medioanterior view). All of these observations indicate the presence of a void around the body during decomposition.

Despite the unfilled environment, several bones remain in an unstable position. While the lower part of right hemithorax has opened, the upper part has not

completed this movement, and the thoracic volume is partly preserved. The collapse of the left ribs is also limited, and the volume is partly preserved as well. Although other bones are disrupted, they have not collapsed on the bottom of the pit. For instance, the pubic symphyses are separated, but the movement of the hip bones ceased before they reached the pit bottom. No longitudinal *effet de paroi* is visible, but the arrangement of the left forearm bones implies the presence of a support, which was perishable, as it is no longer visible: the dislocation dynamics of the elbow can only be understood if the arm was in unstable position when the ligaments disappeared and, thus, originally raised. Together with the reversal of the scapula, this characteristic suggests that the elbow was resting on a type of wall. Such as wall along the side of the body would explain why the collapse of the ribs and hip bone is incomplete despite the decomposition environment. Furthermore, the symmetry of these constraints allows the existence of a rigid container to be proposed, but the position of the upper limbs, extending beyond the *effets de paroi*, implies that the container was unclosed.

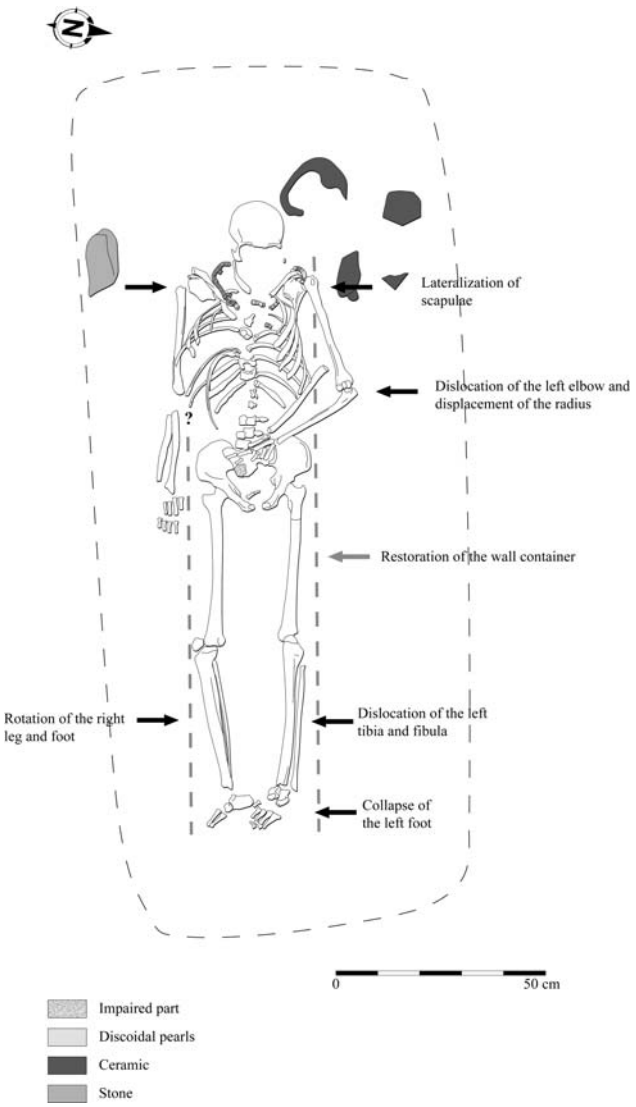

FIGURE 3. Plan of the burial 97 of Jechtingen, Baden-Württemberg. Decomposition of a corpse in a void, the presence of constraints along the both sides of the body allows reconstructing the presence of a narrow container made of hard material. CAD by C. Thevenet.

A mobile container inserted in the grave

For determining the mobile character of a container, there is no objective criterion involving the container itself. The heaviest arrangements are usually fixed ones, but this discussion would be irrelevant in the case of a stone grave. When no trace remains of a container, it must have been composed of a perishable material. Therefore, the question arises of which criteria can be used to discriminate between a fixed construction and a mobile container? The material might be decisive in the case of the use of wattle and daub, indicating that the container was obviously built in the grave pit, but sediment analyses are too scarce, and taphonomic analysis does not enable this type of identification. Size is not a satisfactory criterion: the size of these Neolithic single graves suggests that the container would have been transportable. A mobile container must have a bottom. However, a fixed construction may include a flat base; the body could therefore have been deposited on a fixed and raised support above the grave floor. Ultimately, due to the lack of the actual remains of the container, one must search for consequences of the transport and deposition of the body. Among burials in the Paris Basin, there are several favourable cases indicating the mobile character of the container. For the "la Porte aux Bergers" cemetery at Vignely, located in the Marne valley, there are both abundant data with well-preserved bones (Chambon, Lanchon 2003). Grave 153 provides one such good example (*Figure 4*).

The pit is of considerable size, being 2.50 m long, 1.50 m wide and showing a depth of 0.60 m beneath the excavation surface. The bottom of the pit is horizontal, though irregular. This burial contains a young adult lying stretched on their back without any grave goods. Despite some disturbances due to animal burrows, diagnosis of the decomposition environment is relatively easy. The skull is fragmented, with the dispersion of skull

fragments exceeding the initial volume of the head. The left shoulder is disrupted, with the glenoid scapula cavity facing the upper part of humeral diaphysis, more than 5 cm from the head. The pelvis is totally open. The left patella has collapsed. The left fibula has fallen laterally. Although these dislocations are unspectacular, they are at least meaningful.

However, attention is drawn in this case not by the decomposition environment, but by the *effet de paroi* visible on the right-hand side of the skeleton from the shoulder to the foot. The perfect alignment is also observed in the hand located on the thigh and in the foot, which follows the rotation of the leg but finally extends the axis. This type of *effet de paroi*, as J. Leclerc highlights in his definition (Leclerc, Tarrête 1988), results from movement, which in this case was the compression of the body against a wall that was originally in place. Such a movement could not have occurred on the bottom of the pit revealed by the excavation, as it implies the existence of a strong slope. Although the body could have rested on a sloping surface, the simplest hypothesis is that it slumped during transport or when it was lowered into the grave. In this case, the body would clearly have been transported and lowered into the grave inside a container. The hypothesis of a mobile container also explains the different axes of the container and the pit quite simply: the absence of grave goods suggests the "undertakers" did not step down into the grave during the burial and instead lowered the container from the edge of the pit.

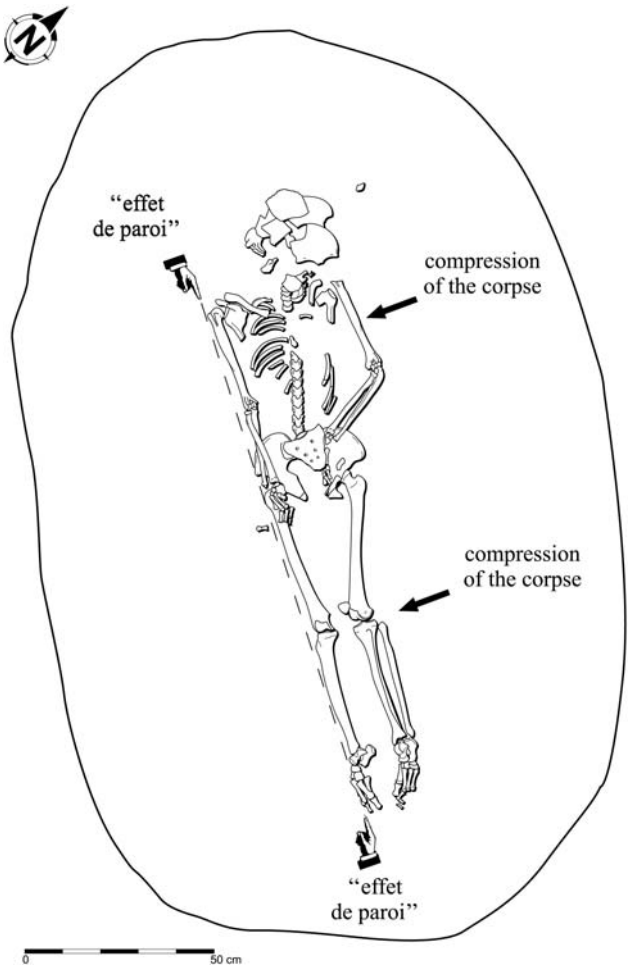

FIGURE 4. A mobile container: burial 153 of Vignely, la Porte aux Bergers. The *effet de paroi* on right hand side of the skeleton is remarkable. It indicates that corpse collapsed against the container's wall during transport.

A grave including real architecture

In some of the Paris Basin graves, such as grave 130A from the Vignely "la Porte aux Bergers" cemetery, it is possible to demonstrate that the container itself did not determine the decomposition conditions. In the case of grave 130A, it is the second burial in a grave with two levels that is involved. A 3 to 10 cm layer of sediment separates the skeleton from the underlying bones belonging to the first burial level. The individual lies on its back in a stretched position, head to foot with the former burial, with a deviation of approximately 20° from the pit axis (*Figure 5*).

There is scarcely any doubt about the existence of a void around the body: many bones extend beyond the initial volume of the body. The head is straightened, with a break being observed in the vertebral column. The right shoulder is disrupted: the scapula in lateroposterior view adjoins the mandible, and the humerus is upended, being separated from both the glenoid cavity and the proximal extremities of the forearm. The left hand is dispersed. The left fibula lies away from its anatomical location, at a distance of 5 cm at the proximal extremity and 2–3 cm at the distal one. Although the existence of burrows might explain some of the missing bones and dislocations, the general picture is clear.

Three convergent types of data support the hypothesis of a mobile container. First, an *effet de paroi* is indeed visible on right-hand side of the body from the shoulder to ankle. It is highlighted by the straightening of the scapula, the vertical situation of the hip bone and the linear stretching of the lower limb, without rotation of the leg (the patella is still situated at the extremity of the femur). Second, the compression of the body is also indicated on the left side. The thorax has closed itself:

the scapula is completely separated from the ribs. The width of the thorax does not exceed 22 cm, which contradicts a stretched position lying on the back. The position of the lower limbs is asymmetrical. The left leg, from the knee down, is side by side with the right one. Finally, the main axis of the individual, in contrast to the pit axis, provides an indirect, but sufficiently strong argument for a mobile container.

However, the presence of a void and the use of a mobile container do not explain all of the data. For instance, the *effet de paroi* visible on the right side of the skeleton does not limit the distribution of the bones. The right upper limb extends beyond this limit, with the humerus crossing the initial location of the wall. Thus, its height could not have exceeded a few centimetres, 10 cm or so at most. The extension of the upper limb outside the container implies that it would not have been sealed, at least hermetically. The low height of the wall around the right shoulder discredits the hypothesis of a lid placed on the container walls. In fact, if the container was not closed, the void must have been maintained by the grave itself, rather than by the container.

The large size of the pit is not only a result of the need to receive a mobile or, for that matter, narrow container. Above all, it indicates the existence of a genuine

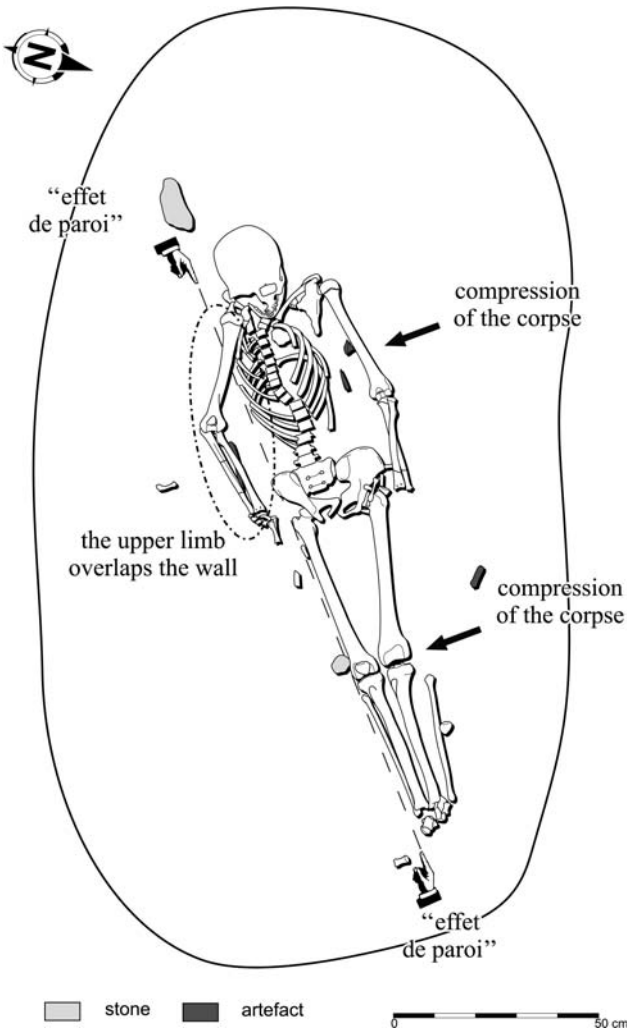

FIGURE 5. A mobile container in a structured grave: burial 130A of Vignely, la Porte aux Bergers. Besides the *effet de paroi* and the sliding of the corpse, one can note that the right upper limb overlapped the container's wall. As a result, the container cannot have been closed.

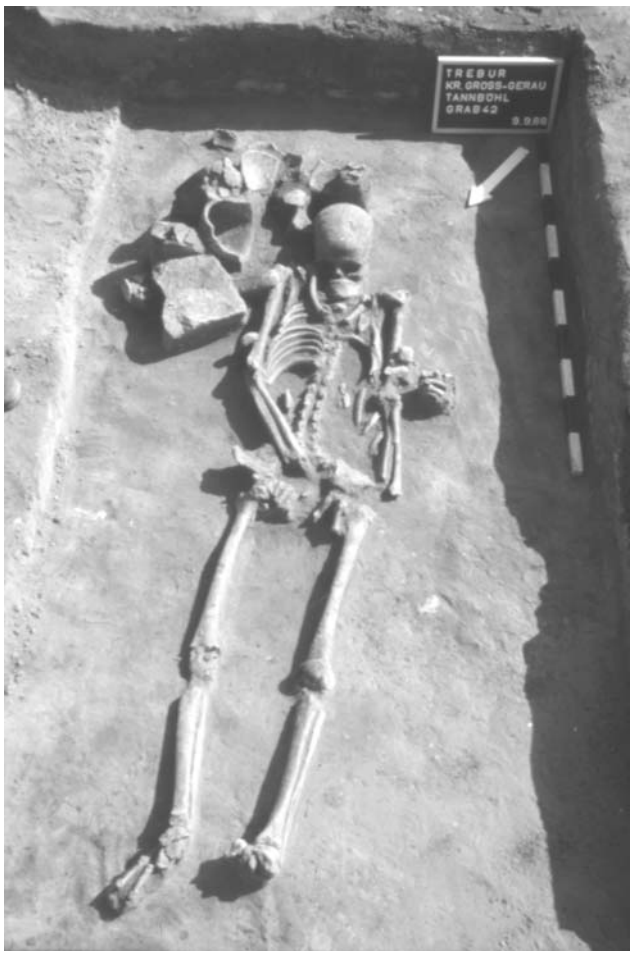

FIGURE 6. Burial 42 of Trebur, Hessen. The extremely straightened skull position required an arrangement behind the head, maybe different from those of the body. Photo by Landesamt für Denkmalpflege Hessen.

construction within the pit, which could be regarded as the real grave.

Internal organisation of the grave

Taphonomic analysis enables perishable elements to be detected on the condition that these elements, through their initial presence and subsequent decomposition, have caused disturbances in the anatomical organisation of the remains or in the position of grave goods.

In graves belonging to the Hinkelstein Culture, grave goods are numerous and diverse. These goods are located mostly around the head and the upper part of the body. Their location and the often constrained position of the head give rise to the question of whether certain arrangements were made inside the grave.

In the Trebur cemetery, the skulls of numerous individuals are either straightened or leaning on one side. Due to the poor preservation of the skeletons, the skull position can only be observed for 35 Hinkelstein individuals: in 23 cases, the skull is leaning, whereas it is straightened in 11 others (Spatz 1999: 22). Grave 112 provides a clear example of a leaning skull, on the right side in this case, most likely as a result of slipping laterally. In grave 42, the skull is completely straightened, as a consequence of falling forwards; this skull slipped behind the mandible until gaining a new stable position (*Figure 6*). In addition to this significant movement, there are several other pieces of evidence arguing for a void around body: the pelvis has opened, and the legs have revolved laterally, although more on the right-hand side. On the other hand, many bones remain in unstable position on the right-hand side of the body, including the shoulder, the upper limb and the hip bone. The upper half of the body slopes from left to right, and a constraint on the right shoulder can be noted, but the skull and the mandible lie flat. Does this indicate different supports for the body and skull, or does the skull lean against a support reserved for the grave goods? Such goods include a grindstone, adzes and pottery, none of which are positioned on the bottom of the pit.

The skull position and location of grave goods are quite similar in grave 69 (*Figure 7*). The upright skull has subsided behind the mandible, which rests on the first thoracic vertebra. In spite of the poor preservation of the skeleton, several dislocations suggest the existence of a void and the presence of walls on both sides of the body. In addition to the collapse of the skull, we observe lateral rotation of the left leg and foot, opening of the pelvis and, especially, significant dislocation of the right shoulder. The head of the humerus, located beyond the scapula, extends beyond the initial volume of body. The scapula has also revolved laterally, and the clavicle is in a vertical position. The dislocation of the right shoulder can only be understood if it was originally raised, with a perishable element as a support. Additionally, despite the poor preservation, a constraint can be observed on the right metatarsus. To the left, the closure of the pelvis implies the existence of lateral pressure on the hip bone. Two limits were therefore drawn on the two sides of the body, and the upper limbs extend beyond these limits. However, the use of an open container does not explain the strong constraint on the skull. This again raises the question of whether two separate constructions were employed for the body and the head.

FIGURE 7. Grave 69 of Trebur, Hessen. The taphonomic analysis implies that corpse decayed in an empty space and the presence of an open container, but the skull position requires another device. Is it also the same object on which the grave goods were deposited behind the head of the deceased. Photo by Landesamt für Denkmalpflege Hessen.

The grave goods behind the head include a broken pottery vessel, upon which lies a grindstone. Nearby, a sloping faunal deposit lies at the same level as the top of the skull, with other sherds from the vessel below. There is some sediment between and underneath the various grave goods. Where and upon what were the grave goods originally placed? Were they situated within the grave on a support, close to the head of the deceased, or on top of the grave architecture? The weak dispersion of the pottery sherds implies at least a small amount of movement.

PARIS BASIN AND UPPER RHINE PLAIN: A COMPARISON

The definition of the identikit of a Cerny grave in the Paris Basin implies a degree of generalisation that the data do not permit. The quality of the excavation is not in doubt. The earliest discoveries of this type of grave go back as far as the 1970s, and from this time onward, Claude and Daniel Mordant gave priority to archaeological recordings and combined photos and plans (Mordant, Mordant 1970). The excavations conducted in the following decade, directed by Mordant at Balloy (Mordant 1997) and by J.-P. Delor at Chichery (Chambon *et al*. 2010), were largely in accord with present-day standards. In fact, the problem with the available data mainly concerns the legitimacy of grouping all or part of the corpus to search for a general interpretation.

The conditions of interpretation are different for each grave, but this does not mean that each grave is different. Thus, when a grave is interpreted, it must be decided to what extent its characteristics might correspond to another grave interpreted as being more complex, taking into consideration the fact that differences between the data could simply be due to random taphonomic effects. The criteria that motivate the search for a single interpretation for burials are the common archaeological characteristics they share (*Figure 8*). It must be added that the data do not depend on the sex or age of the

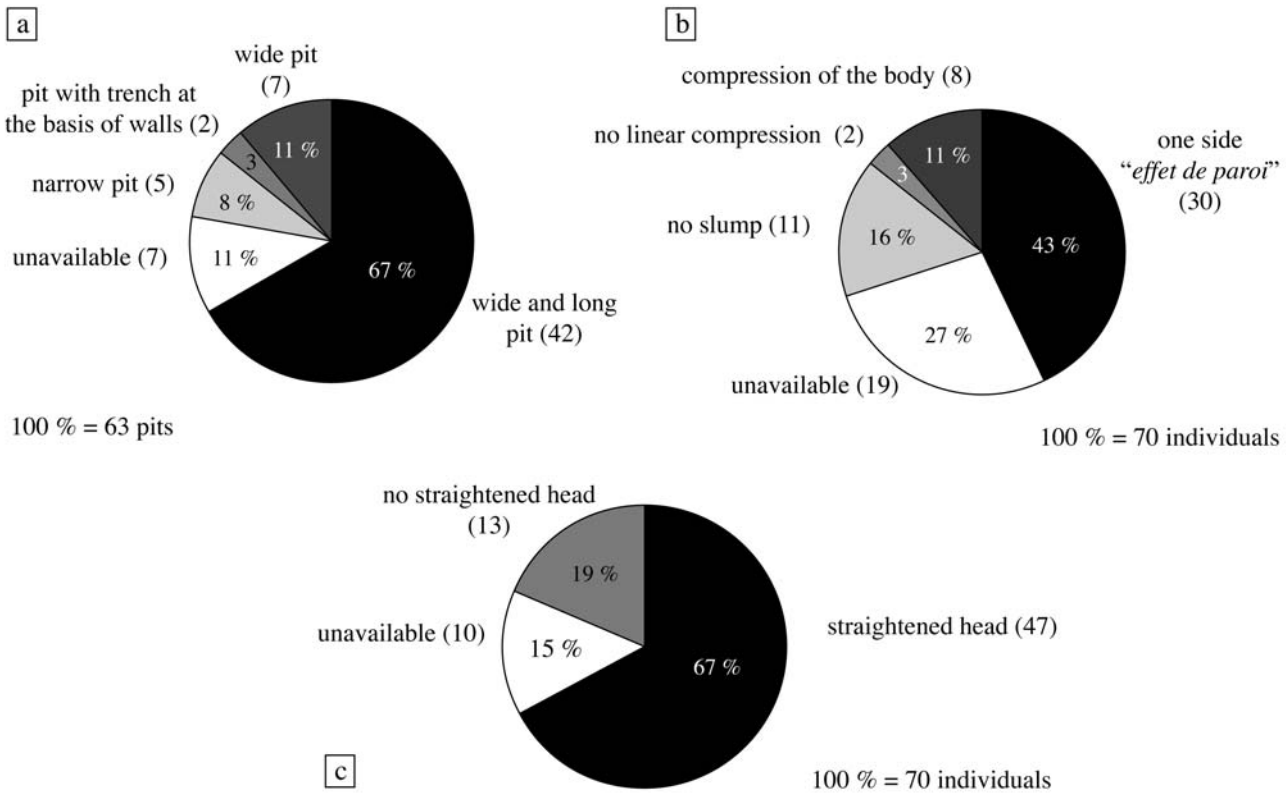

FIGURE 8. Few characteristic of grave layouts in Paris Basin: a, outsized pits; b, skeletons leaned on container's wall; c, straightened heads.

individuals (Thomas 2011). The layout inside the corpus, which contains more than one hundred graves, does not vary in terms of biological or grave good criteria. The most complex pattern identified for Cerny, in the Paris Basin, is a grave built inside a large-sized pit (*Figure 9*). Although the exact shape of the vault is generally unknown, the collapse of the side of the pit against the external wall of the grave, as observed in some graves at Vignely or in grave 04-99 at Monéteau, reveals that the construction does not consist of a simple lining of the pit sides, in addition to enabling its external width to be measured, which was found to 1 m in the Monéteau example. The internal dimensions depend on the type of construction. In the absence of a foundation trench, stake holes or a packing system, wattle and daub, rather than wood, appears to constitute the best hypothesis. The thickness of the wall can therefore be up to approximately 10 cm. Some arrangement may have been performed on the grave floor, but there are no traces of such an arrangement, and the taphonomic analysis conducted thus far explains the remains well otherwise. The corpse is placed in the grave inside a rigid, mobile container, though exactly describing the container is difficult. In most graves, the container is indicated by the *effets de paroi*. The fact that some parts of the body extend beyond the walls implies that they are low in these cases. However, is it the general pattern? There is no evidence contradicting this hypothesis but also none that verifies it. The container is relatively narrow, with an internal width of approximately 45 cm, in the case of Monéteau 04-99. These dimensions may suggest the use of a hollowed-out tree trunk, but this is not the only possible hypothesis. The distribution of bones shows no evidence of the body having being placed on a surface with a U-shaped profile. However, it is difficult to foresee how a monoxylic container would have been prepared. Finally, the overall conclusion depends on the intentions of the Neolithic people: although the mobile criterion appears to be essential as does the wish to display the corpse during the funeral, the actual form the container took may not have been a compulsory matter. Nevertheless, it must be added that the head is always upright, which implies a particular arrangement in the container, or an element associated with the head. At present there are no reliable data that would allow determination of the nature of this contrivance.

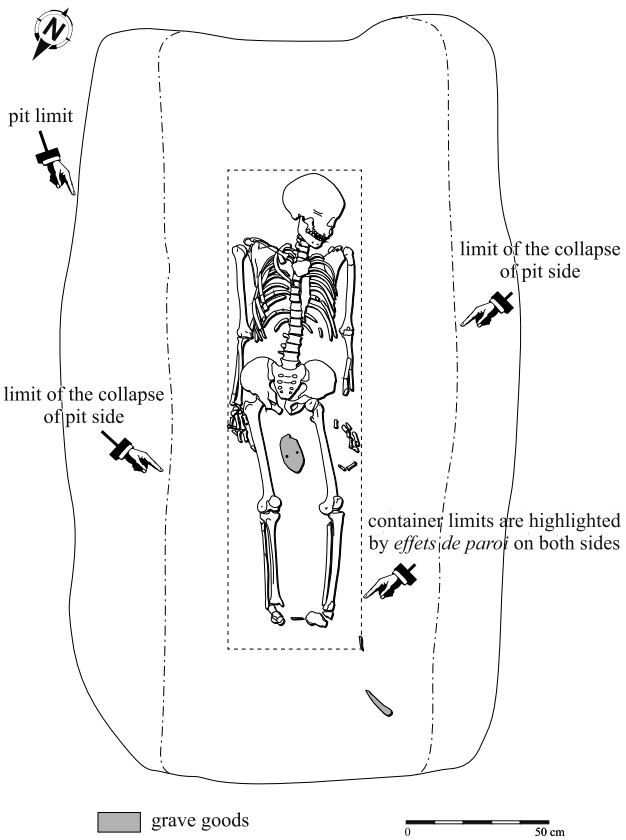

FIGURE 9. The identikit of Cerny graves. Burial 04-99 of Monéteau. Three distinct limits must be distinguished: pit, vault and container ones.

The containers generally appear to have been lowered into the grave from the edge of the pit. The actual position of the container inside the grave seems to have been of minor importance: it is often not positioned in the centre of the pit and therefore not in the centre of the grave. In some cases, the container is not even oriented along the main axis of the grave; in this regard, Vignely 130A appears to represent an extreme case. The same indifference appears to affect the burial position. When the corpse shifted against a wall or an upper limb protruded outside of the container during its transport or installation in the grave, the "undertakers" did not take the trouble to put it back in place in most cases. However, it should be noted that this situation is observed in graves without grave goods deposited next to the container. Hence, placing the body in the standard position was not sufficiently important for someone to enter the grave to do so. In contrast, the position of the body appears to have been more "carefully" arranged in cases where grave goods have been placed in the grave, suggesting that once inside the grave, the "undertaker" used the opportunity to readjust the position of the corpse. Deposition of grave goods is nevertheless exceptional. At Vignely, as at Balloy, there are few objects associated

with the dead, and half of these objects, if not more, are worn or were placed on the body in the container. While the selection of grave goods was strictly codified in Cerny cemeteries, there is no rule for the conditions of deposition. Therefore, hunting equipment was sometimes placed on the body (Passy grave 5.1) or inserted between it and the wall of the container (arrows: Chichery grave 2 or Vignely grave 130A), or placed on the bottom of the grave, between the container and the wall of the grave (Balloy grave 45, Gron grave 14) (Chambon, Pétillon 2009).

Graves from the Rhine cemeteries lend themselves to a detailed analysis of burial conditions only with difficulty. The various reasons for this situation include poor preservation of bones as well as limited documentation. These cemeteries were excavated at the end of either the 1970s, for Jechtingen (Dehn 1985, Dornheim 2011), or the 1980s, for Trebur (Spatz 1999), and did not benefit from the contribution of *anthropologie de terrain* (field anthropology). Hence, this approach can only be applied by examining photographs, and few of these are vertical. The study of this corpus is far from complete, and difficulties can be noted at each level of analysis. Often, there are no simple answers to questions about the decomposition environment and the conditions of burial; many graves present contradictory evidence.

While the taphonomic analysis of grave 112 at Trebur indicates that there was a void during decomposition, the conditions of burial are unknown. Constraints are clearly visible on the right-hand side, but they are unlikely to have been connected with a container. E*ffets de paroi* are rare in this corpus, although constraints can often been noted on one or several anatomical regions: for instance, transverse compression of the shoulder and a constraint on the feet at the other end of a skeleton, together with opening of the pelvis between them makes it difficult to argue either for a rigid container or for a more supple wrapping. It is clear that perishable elements were in contact with the bodies, but their identification is still problematic. When it is not, the container cannot be identified as a coffin. Grave 97 from Jechtingen is exemplary in this context: the taphonomic analysis implies an open container with low walls that do not confine the upper limbs. Although this conclusion can be reached based on distortions in the skeleton, such as the right elbow and the "lateralisation" of scapulas, there is notably no *effet de paroi*. However, there is no reason at present to extend the interpretation of this grave to the whole corpus of the Rhine *Mittelneolithikum*.

In several cases, there is no difficulty in identifying constraints on skeleton, but the existence of a void during decomposition appears doubtful (e.g. Trebur 42). However, does the identification of a filled burial rule out the possibility of arrangements inside the grave? The straightening of the skull, which exceeds the biomechanical possibilities of the neck, involves an element that exerts pressure, at least at this level, but what type of element? Grave goods and head position often appear to be linked, whether the former are responsible for the support of the skull (e.g. in the exceptional case of Trebur 58, Großgartach) or share the same support (Trebur 42 and 69). These burials suggest that two distinct arrangements coexist, one for the body and one specifically for the head, suggesting that the "undertakers" intervened with the body after its deposition.

Contrary to the burials at Cerny, grave goods are plentiful in Hinkelstein burials (and to a lesser extent in Großgartach and Rössen burials, although still more so than in the Paris Basin). When the decomposition environment remains unknown and the shape of the pit cannot be determined because the limits are not visible, can the grave goods be used to show that there was actually an architectural construction? Grave goods are frequently positioned at a higher level than the skeleton (Trebur 112 or 42). When limits are invisible, this situation is also applies to the bottom. In any case, the grindstone discovered above a pot in grave 69 was not in this position during burial. Hence, what did the grindstone originally stand on?

Comparison of the data from the Rhine and from the Paris Basin is unavoidable, as the same type of unusual positioning for Neolithic burials occurs in the two areas simultaneously. There is evidently a strong relationship between them. However, the long duration of this burial system in the Upper Rhine plain complicates this comparison, and the quality of documentation is not equal for the two regions. The existence of containers or mobile supports for transporting bodies has been demonstrated in the two areas. It was a component of the funerary norm in the Paris Basin and doubtless also in the Upper Rhine plain. The identification of this type of container as early as the Linear Pottery Culture by one of the authors of the present work suggests a direct link between the stretched position and use of containers (Thevenet 2012). In both regions, burial involved straightening of the head by means of a perishable element, the nature of which remains unknown. The graves are only perceived indirectly, first through the pit, then through decomposition in an empty space, in cases where it can be certain that a container is not responsible for this space. The comparison between regions is also

complicated by the lack of pit limits in the Rhine loess. Additionally, when colour differences are observed in the sediment, they can potentially indicate the outline of the pit but also that of a container or the internal limits of grave architecture (e.g. Rosheim 45) (Boës 2000).

The internal organisation of deposits is evidence of differences in burial practices. A number of correspondences between these areas indicate that the underlying ideologies were otherwise identical, or at least closely related (Chambon, Thomas 2014). The same question applies to the type of burial. Nevertheless, one must determine what was meaningful in burial practices and what actually diffused from the Rhine valley to the Paris Basin. It was undoubtedly not only the burial position. However, was the whole model adopted, or the shape of container, or simply what the container made possible, i.e. the ostentatious transport of the body, rendering the dead person visible to all during most of the funeral? The more frequent appearance of *effets de paroi* in the Paris Basin may indicate the use of narrower containers in this area, such as hollowed-out tree trunks, while another choice was made in the Rhine valley, such as the use of a board or a stretcher. The observed differences in grave goods, which are scarce in the Paris Basin and numerous in the Rhine valley, may also indirectly explain why the diagnosis appears more complicated in the latter area. Undertakers came down into all of the *Mittelneolithikum* graves to arrange the deposits of grave goods, and they could have repositioned the dead if he was not in right position. Hence, the possibility of unusual positioning and of any subsequent *effet de paroi* fades away.

DISCUSSION

Are the necessary conditions for the identification of mobile containers always fulfilled when there are no material remains? The answer is clearly no, even when there was originally a container. In taphonomic study, this interpretation is only reached at the third or fourth level: the void, the existence of a container or a support, its mobile characteristics, and its eventual insertion in a structured grave are all preliminary steps in reaching such a conclusion. The impediments are numerous. The first obstacle is of course the quality of the documentation. If it was not established for this purpose, it will be unlikely to be sufficient. This is the case for most burials in the Rhine valley. Examining photographs is then the only resort, in the hope that by chance some shots will reveal an interesting detail. The difficulty does not lie in the diagnosis of the decomposition environment. When bones are well preserved, movements outside of the volume of the body can easily be recognised, especially when the deceased is in a stretched position laying on the back. On the other hand, differences in the levels between bones, the *effets de paroi*, and the presence of sediment under or between bones are aspects that require good recording during excavation. Nevertheless, due to the general improvement in the quality of burial excavation procedures and the efforts made to teach the taphonomic approach (Duday 2009), it could be hoped that this type of analysis will henceforth be possible throughout Neolithic Europe. Unfortunately, documentation is not the only obstacle to studying these funerals.

The discussion in the discipline of *anthropologie de terrain* cannot be limited to yes or no answers to a series of questions. In fact, at every level, there is another possible answer: undetermined. To make a diagnosis of the decomposition environment, there must either be bones in an unstable position or bones positioned outside of the initial volume of the body without any external intervention. If either observation is lacking, no conclusion is possible. Depending on the position of the body, the instances of disequilibrium at the end of decomposition can be quite limited, especially when the body is in a stretched position, with extended limbs. The situation becomes more complicated at each level. Thus, the absence of an *effet de paroi* never signifies the absence of a wall: it only means that no element was leaning against a wall. Therefore, the method favours the identification of a narrow container. As highlighted in this paper, the mobile criterion is interpreted through collapses during transport or the placement of the container in the grave, i.e. in a deviant position compared to the norm, or an obviously unbalanced one. However, if the "undertakers" repositioned the corpse after placing the container in the grave, our main argument disappears. Ultimately, it will not be possible to compare the one or two cases where a certain type of container is identified with all of the others. These one or two cases must be contrasted with the cases where it can be demonstrated that there was not a mobile container. For all other burials, the levels at which interpretation comes to an end have to be defined. Finally, in the Middle Neolithic burials of the Rhine valley as well as for the Cerny, it is the consideration of a whole corpus, and not of a single burial independent of the others, that improves our understanding of funerals. One must recall that the interpretation of a grave should always be minimal, favouring the simplest hypothesis to explain the data.

Grouping the data from identical contexts enables a more complex interpretation to be made, thus refining the understanding of the burials. On the contrary, the direct use of an external context to interpret burials does not result in a more complex interpretation or a more refined understanding: such an interpretation requires the assimilation of the burial into a model. Such a pitfall is well known in palaeodemography under the term "attraction of the reference population" (Masset 1982). One might argue that to restrain oneself to the corpus may limit the interpretation. However, the constantly increasing sample of Neolithic burials prevents us from being excessively pessimistic, and taphonomic analysis is not the only way to study burial structure.

The sediment analysis using micromorphology, developed over the last few years in burial contexts, sheds a new light on these arrangements. In the most favourable cases, sediment analysis can help locate grave walls, identify modifications on the bottom of the grave, and reveal whether the grave was filled quickly or slowly, either between the side of the pit and the grave wall or within the grave itself. At the level of the skeleton, it should be possible to distinguish arrangements related to the burial and therefore the container if it existed. The first results in this context, such as those reported by J. Wattez for the Monéteau burials (Augereau, Chambon 2011), are extremely promising; the combination of this approach with phytolith or pollen analysis is now planned, especially in cases where wattle and daub or litter are present.

CONCLUSION

What is the meaning of the first appearance of stretched burials during the Neolithic? Middle Neolithic findings show a strong link between this positioning and the use of mobile containers for funerals. Of course, the crouched position does not prohibit such use, but it became almost systematic at Cerny and most likely also in the *Mittelneolithikum*. Furthermore, the installation of the body is accompanied by the straightening of the head and, at Cerny, with the deposition of some of attributes of the dead on the corpse. The transportation of the dead may be less essential than the visibility of the dead and their exhibition during all funerals.

From this perspective, mobile containers appear to be a new tool used in rituals. They allow funerals to become more complex, with the introduction of two additional phases: placement in the coffin and a funeral procession. Surprisingly, this innovation is abandoned after the Middle Neolithic and will only reappear in funerals during the Bronze Age in Europe, confirming the absence of any real continuity of burial practices during Neolithic.

From a methodological perspective, the conclusion may be reached that the lack of hard evidence of a mobile container and, more generally, of the initial grave must not be regarded as a definitive handicap for their reconstruction. Through optimal use of the context of the remains, a picture of the burial in its original form gradually takes shape.

ACKNOWLEDGEMENTS

M. J. Ilett has revised the English version of this paper. Dr. H. Göldner (Landesamt für Denkmalpflege Hessen, Darmstadt) and S. Dornheim (MA, Albert-Ludwigs-Universität Freiburg) have allowed one of us (CT) to study the documentation, respectively of the Trebur cemetery and of the Jechtingen cemetery during postgraduate research (post-doctoral research grant from the "Fondation Fyssen").

REFERENCES

ALLARD P., DUBOULOZ J., HACHEM L., 1997: Premiers éléments sur cinq tombes rubanées à Berry-au-Bac (Aisne), principaux apports à l'étude du rituel funéraire danubien occidental. In: C. Jeunesse (Ed.): *Le Néolithique danubien et ses marges entre Rhin et Seine.* Actes du 22e colloque interrégional sur le Néolithique, Strasbourg, 1995. Pp. 31–43. Cahiers de l'APRAA, n° 3. Association pour la Promotion de la Recherche Archéologique en Alsace, Zimmersheim.

AUGEREAU A., CHAMBON P. (Eds.), 2011: *Les occupations néolithiques de Monéteau (Yonne).* Mémoire n° 53. Édition de la Société préhistorique française, Paris.

BOËS É., 2000: Evolution des comportements funéraires entre les VIe et Ve millénaires av. J.-C. en Alsace. *Cahiers Alsaciens d'Archéologie, d'Art et d'Histoire* 43: 5–18.

BONNABEL L., PARESYS C., THOMASHAUSEN L., 2003: Un groupe de tombes en contexte d'habitat néolithique rubané à Ecriennes « la Folie » (Marne) : approche des gestes funéraires. In: P. Chambon, J. Leclerc (Eds.): *Les pratiques funéraires avant 3500 av. J.-C. en France et dans les régions limitrophes.* Actes de la table ronde SPF, Musée des Antiquités Nationales, Saint-Germain-en-Laye, juin 2001. Pp. 45–53. Mémoire n° 33. Édition de la Société préhistorique française, Paris.

CHAMBON P., 1997: La nécropole de Balloy les Réaudins, approche archéo-anthropologique. In: C. Constantin, D. Mordant, D. Simonin (Eds.): *La Culture de Cerny : nouvelle économie, nouvelle société au Néolithique.* Actes du

Colloque International de Nemours, mai 1994, Nemours. Pp. 489–498. Mémoires du Musée de Préhistoire d'Île-de-France 6. Édition APRAIF, Nemours.

CHAMBON P., 2012: *Regards sur la mort au Néolithique moyen*. Mémoire d'habilitation à diriger des recherches. Université de Bordeaux 1, Bordeaux.

CHAMBON P., DELOR J.-P., AUGEREAU A., GIBAJA J., MEUNIER K., THOMAS A., MURAIL P., MOLEZ D., 2010: La nécropole néolithique moyen de Chichery, « Sur les Pâtureaux » (Yonne). *Gallia Préhistoire* 52: 117–192.

CHAMBON P., LANCHON Y., 2003: Les structures sépulcrales de la nécropole de Vignely (Seine-et-Marne). In: P. Chambon, J. Leclerc (Eds.): *Les pratiques funéraires néolithiques avant 3500 av. J.-C., en France et dans les régions limitrophes.* Actes de la table ronde SPF, Musée des Antiquités Nationales, Saint-Germain-en-Laye, juin 2001. Pp. 159–173. Mémoire n° 33. Édition de la Société préhistorique française, Paris.

CHAMBON P., PÉTILLON J.-M., 2009: Des Chasseurs Cerny ? *Bulletin de la Société Préhistorique française* 106, 4: 761–783.

CHAMBON P., THOMAS A., 2014: Approche structurale des nécropoles monumentales du V^e^ millénaire dans le bassin Seine-Yonne. *Bulletin de la Société préhistorique française* 111, 2: 275–290.

DEHN, 1985: Ein Gräberfeld der Rössener Kultur von Jechtingen, Gemeinde Sasbach, Kreis Emmendingen. *Archäologische Nachrichten aus Baden* 34: 3–6.

DORNHEIM S., 2011: Jechtingen "Humbergäcker": ein mittelneolithisches Gräberfeld am Kaiserstuhl. In: A. Denaire, C. Jeunesse, P. Lefranc (Eds.): *Nécropoles et enceintes danubiennes du V^e^ millénaire dans le Nord-Est de la France et le Sud-Ouest de l'Allemagne.* Actes de la table ronde internationale de Strasbourg, juin 2010. Pp. 127–142. Rhin-Meuse-Moselle, Monographies d'Archéologie du Grand-Est 5. Université de Strasbourg, Strasbourg.

DUDAY H., 1995: Anthropologie de « terrain », archéologie de la mort. In: R. Joussaume (Ed.): *La mort passé, présent, conditionnel.* Actes du colloque de La Roche-sur-Yon, juin 1994. Pp. 33–75. Groupe Vendéen d'Etudes Préhistoriques, La Roche sur Yon.

DUDAY H., 2009: *The archaeology of the death: lectures in archaeothanatology*. Oxbow Books, Oxford.

DUDAY H., COURTAUD P., CRUBÉZY É., SELLIER P., TILLIER A.-M., 1990: L'anthropologie « de terrain » : Reconnaissance et interprétation des gestes funéraires. *Bulletins et mémoires de la Société d'Anthropologie de Paris* 2, 3–4: 29–50.

DUDAY H., MASSET C. (Eds.), 1987: *Anthropologie physique et archéologie : méthodes d'étude des sépultures*. Actes du colloque de Toulouse, 4, 5 et 6 novembre 1982. CNRS, Paris.

DUDAY H., SELLIER P., 1990: L'archéologie des gestes funéraires et la taphonomie. *Les Nouvelles de l'Archéologie* 40: 12–14.

DUHAMEL P., FONTON M., CARDO H., 1997: La nécropole monumentale de Passy (Yonne) : description d'ensemble et problème d'interprétation. In: C. Constantin, D. Mordant, D. Simonin (Eds.): *La Culture de Cerny, nouvelle économie, nouvelle société au Néolithique.* Pp. 397–448. APRAIF, Nemours.

JEUNESSE C., 1997: *Pratiques funéraires au Néolithique ancien: sépultures et nécropoles danubiennes, 5500–4900 av. J.-C.* Errance, Paris.

LAMBACH F., 1993: La nécropole rubanée d'Ensisheim Les Octrois : Description des tombes et anthropologie de terrain. In: *Recherches et documents sur le Néolithique ancien du sud de la Plaine du Rhin supérieur (5400–4800 av. J.C.).* Pt. 2. Pp. 17–48. Cahiers de l'Association pour la promotion de la recherche archéologique en Alsace 9. Association pour la promotion de la recherche archéologique en Alsace, Zimmersheim.

LECLERC J., 1975: Problèmes d'observation et de terminologie à propos de la sépulture collective de la Chaussée-Tirancourt. In: A. Leroi-Gourhan (Ed.): *Séminaire sur les structures d'habitat : sépultures*. Pp. 20–25. Collège de France, Paris.

LECLERC J., TARRÊTE J., 1988: Effet de paroi. In: A. Leroi-Gourhan (Ed.): *Dictionnaire de la Préhistoire*. Presses Universitaires de France, Paris.

MASSET C., 1982: *Estimation de l'âge au décès par les sutures crâniennes*. Thèse de Sciences naturelles. Université de Paris VII, Paris.

MORDANT D., 1997: Le complexe des Réaudins à Balloy : enceinte et nécropole monumentale. In: C. Constantin, D. Mordant, D. Simonin (Eds.): *La Culture de Cerny : nouvelle économie, nouvelle société au Néolithique*. Actes du Colloque International de Nemours, mai 1994, Nemours. Pp. 449–479. Mémoires du Musée de Préhistoire d'Île-de-France 6. Édition APRAIF, Nemours.

MORDANT C., MORDANT D., 1970: Le site néolithique des Gours-aux-Lions à Marolles-sur-Seine (Seine-et-Marne). *Bulletin de la Société préhistorique française* 67, 1: 345–371.

PESCHEL C., 1992: *Regel und Ausnahme: Linearbandkeramische Bestattungssitten in Deutschland und angrenzenden Gebieten, unter besonderer Berücksichtigung der Sonderbestattungen*. Internationale Archäologie 9. M. L. Leidorf, Buch am Erlbach.

POPLIN F., 1975: Problèmes d'ostéologie. In: A. Leroi-Gourhan (Ed.): *Séminaire sur les structures d'habitat : sépultures*. Pp. 27–34. Collège de France, Paris.

SPATZ H., 1999: *Das mittelneolithische Gräberfeld von Trebur, Kreis Groß-Gerau, Textteil I.* Materialien zur Vor- und Frühgeschichte von Hessen, Wiesbaden.

THEVENET C., 2004: Une relecture des pratiques funéraires du Rubané récent et final du Bassin parisien : l'exemple des fosses sépulcrales dans la vallée de l'Aisne. *Bulletin de la Société préhistorique française* 101, 4: 815–826.

THEVENET C., 2010: *Des faits aux gestes : pratiques funéraires et sociétés du Néolithique ancien du Bassin parisien*. Thèse de nouveau doctorat. Université Paris 1-Panthéon Sorbonne, Paris.

THEVENET C., 2012: L'invention du cercueil au Néolithique : un changement profond dans la conception des funérailles. *Annales de la Fondation Fyssen* 27: 36–48.

THOMAS A., 2011: *Identités funéraires, variants biologiques et facteurs chronologiques : une nouvelle perception du contexte culturel et social du Cerny (Bassin parisien, 4700–4300 avant J.-C.).* Thèse de doctorat en anthropologie biologique. Université de Bordeaux 1, Talence.

Philippe Chambon
CNRS-UMR 7041
Ethnologie préhistorique
Maison René-Ginouvès
Archéologie et Ethnologie
21 allée de l'Université
F-92023 Nanterre Cedex
France
E-mail: philippe.chambon@mae.cnrs.fr

Corinne Thevenet
UMR 8215 Trajectoires
Maison René-Ginouvès
Archéologie et Ethnologie
21 allée de l'Université
F-92023 Nanterre Cedex
France
E-mail: corinne.thevenet@cnrs.fr