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ARCHAEOTHANATOLOGY AND FUNERAL ARCHAEOLOGY. APPLICATION TO THE STUDY OF PRIMARY SINGLE BURIALS

ABSTRACT: In funeral archaeology, to understand a burial is to bear in mind, above all, that skeletons were once corpses. The process by which a corpse is transformed into a skeleton is one of the key questions when excavating burials. Detailed field osteological observations are essential to the restitution of the environment in which the body decay took place. In this paper, special attention is given to primary deposits, with a presentation of few archaeological examples which document distinct characteristics of the space surrounding the corpse. It is through a multiplication of reflections developed on different sites and contexts that archaeothanatology will refine its analytical methods and widen the scope of its contribution.

KEY WORDS: Funerary archaeology – Archaeothanatology – Primary deposit – Body decay – Taphonomy

INTRODUCTION

Generally, articles on burials are written by the archaeologists who excavated them and are rich in information of an archaeological type which relates to their specific training. This may differ from country to country and, even within a single country, among universities. Archaeological education is generally based both on learning to read stratigraphy (the point of departure for all archaeological activity), to recognise layers, stratigraphic units, fills and so on. Archaeologists often lack sufficient training in anatomy to record the data related to the arrangement of human remains, and the deceased is therefore excluded from overall assessment of the tomb. The bones are treated as extraneous elements, often published in appendices and therefore totally dissociated from the archaeological analysis. When reading publications devoted to funerary archaeology, we often face a clear inversion in the hierarchy of importance of the different elements of the burial. The impression is often given that a corpse accompanies the brooch or the vessel, although the most important element of the burial is not the furnishing but the deceased: the brooch is not buried, but the deceased

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with the brooch. This is an epistemological aberration: the dead body is the *raison d'être* for the tomb and the central element around which, and in function of which, the acts were performed which funerary archaeology aims to reconstruct. The process by which a corpse is transformed into a skeleton is one of the key questions when excavating burials.

The last three decades have seen the development in France of an innovative approach devoted to a better understanding of human deposits, based upon field anthropological observations (Duday 1987, Duday, Masset 1987, Duday *et al.* 1990). This approach was developed when rescue archaeology was being established attempts to reconstruct the attitudes of ancient populations towards death by focusing on the study of the human skeleton and analysing the acts linked to the management and treatment of the corpse. The use of the term "archaeothanatology", since "thanatology" studies the biological and social components of death, was recently suggested (Boulestin, Duday 2005). The major aim of this methodological approach (Duday 2005, 2009, Duday, Guillon 2006) is to enable valid interpretation by archaeologists and skeletal biologists of the process of decay of the body by close attention to its skeletal remains.

FUNERARY ARCHAEOLOGY AND CORPSE TAPHONOMY

The term "taphonomy" (from the Greek *τάφοσ*, burial and *νόμος*, law) is commonly used in archaeological literature. It usually refers to the modes of preservation – or alteration – of organic elements after burial, but sometimes also refers to the phases before burial (for example traces of butchery in archaeozoology) or to the objects transformed by humans (flint, ceramics, metals, etc.) or to archaeological sites. Funerary archaeology tends to give the term a meaning closer to its etymology: it refers to all the processes that affect human remains after their deposition, the preservation or non-preservation of every skeletal element and its arrangement in relation to others.

To understand a burial is to bear in mind, above all, that skeletons were once corpses. Therefore, the position of the skeleton in excavation may be different from the one which it assumed when deposited. Organic elements, such as clothing, generally decay together with the corpse. Decomposition starts at the very moment of death, but sometimes may begin while the subject is still alive, when necrosis of tissue that is no longer supplied with blood takes place. The decomposition of the corpse takes place because of the action of two general factors, endogenous factors operating inside the corpse and exogenous factors working outside it. The endogenous factors are primarily bacteria, as well as fungi, mostly found along the digestive tract of the deceased. While we are alive our body keeps their proliferation under control but after death these micro-organisms multiply rapidly and attack the body of the individual. There are two immediate consequences, temperature increase and the production of gas. The corpse swells, increasing in volume and some parts become coloured brown and grey by *post mortem* lividity. In an open space, the swollen abdomen can even burst if the temperature is high enough. This phenomenon does not occur if the corpse is buried in the ground. The intervention of exogenous elements such as animals is directly conditioned by the tomb architecture. In the burials of contemporary Christian Europe, animals able to disturb the deposit are usually very small, since the dead body is placed in a coffin underground or protected by a tomb. The identification of these exogenous animals will provide us indirectly with information on the tomb architecture and on the protection, if any, of the corpse.

Funerary archaeology is aimed above all at reconstructing the initial burial deposit, starting from the excavated remains and working backward through the transformations undergone by the corpse. It is important therefore that the archaeologist should not only know the bones, but also the various stages of decomposition, since these may significantly modify the original situation, i.e. as desired by those who created the burial.

DIFFERENT CATEGORIES OF FUNERARY DEPOSITS

Archaeothanatology is an essential part of the archaeological analysis of funerary complexes, both for the study of burial practices and for establishing the internal chronology of deposition. To work following the methodological pointers of forensic medicine may not only help to explain some anomalies and to create a body of reference knowledge on which to base comparisons, but also helps to reconstruct the original arrangement of the burial, and thus to identify different categories of funerary deposits (e.g. Duday 2009, Duday *et al.* 1990).

Primary and secondary burials

There are different types of funerary deposits. A first distinction can be drawn between primary and secondary

burials (Leclerc 1990). A primary burial corresponds to what anthropologists and sociologists of death call the "simple funeral". It consists of a single ceremony during which the manipulation of the remains takes place. The body, still in a state of anatomical integrity, is then placed in its final tomb. Decomposition happens almost entirely at the place of burial.

A secondary burial corresponds instead to what anthropologists call the "double funeral". The human remains are manipulated at two different stages. First the corpse is put in a temporary burial where decomposition takes place. Afterwards the bones are transferred to a tomb. The final burial happens away from the place of decomposition. It is not therefore possible to observe the diagenesis of the corpse in the place of final deposition since the decomposition products were not created there.

From a practical point of view, it is not always easy to distinguish primary from secondary burials. Here we need to distinguish two levels of analysis. The first concerns the demonstration of the primary or secondary character of the deposit ("deposit" is a neutral term here that does not necessary imply human action, as in the case of a sedimentary or alluvial deposit, for example). It is an issue of distinguishing whether the subject was a corpse (primary deposit) or loose bones (secondary deposit) when it arrived at the place in which its remains were found. The second level of analysis concerns the demonstration that we are considering a burial proper, whether primary or secondary. It is necessary to prove that the manipulation of dry bones had been planned from the start. This notion of pre-planning is indispensable for defining a secondary burial, since it distinguishes it from other later handling of dry bones, for example in the case of "reduction".

Single (individual), multiple and collective funerary deposits

Another distinction can be drawn between individual burials, containing the remains of a single individual, and funerary complexes containing a number of corpses (Leclerc, Tarrete 1988). Within these categories further distinctions can be made. When the complex comprises many burials (usually individual), each with its own structure, it may be called a "necropolis" or cemetery. A multiple burial comprises dead bodies which have been deposited in the same place simultaneously. This generally represents evidence for catastrophic events, massacres, plagues, floods, etc., which have caused a mortality crisis. The minimum form of multiple burial, containing only two individuals deposited at the same time, is double.

Finally, burials are collective where the corpses have been deposited at different times and where the structure has been built to allow for reopening for further depositions. While the term "individual burial" is commonly accepted, we must admit that the other types of burials do not benefit from a commonly accepted definition by archaeologists and historians.

At this point in the presentation, our purpose is to focus on the identification of primary burials, and to deal with individual burials.

IDENTIFYING A PRIMARY BURIAL

As mentioned before, a primary deposit is one in which the corpse is laid in its final place of burial where decomposition takes place. It is necessary to demonstrate the elements on the basis of which a burial can be argued to be a primary deposit. It is well known to archaeologists that primary burials can be recognised from the presence of anatomical connections, and that the presence of these connections allows us to reconstruct the original position of a corpse, even when some decomposition-related changes have occurred (Duday 1987, 2009, Duday *et al.* 1990).

Where a body is buried in temperate and relatively humid environments the joints that break down more rapidly are those of the hand (carpals, metacarpals and phalanges), the distal part of the foot (metatarsal-phalangeal and interphalangeal joints), and the cervical vertebrae. The muscle masses between the scapula and rib cage also break down quickly. The more persistent joints are generally those, which bear the heavier weights, such as the lumbar, lumbo-sacral (between the fifth lumbar vertebra and the sacrum) vertebrae and sacro-iliac joint, the knee, ankle, tarsal and metatarsal. However although they bear the weight of the body, hip joints break down more rapidly because the head of the femur is inserted so perfectly into the acetabulum that powerful structures to retain it are not needed: the ligaments are formed of fibrous strands that surround the joint capsule.

Observation, recording and studying of the spatial organisation of the human remains are essential steps of fieldwork. The skeleton of an infant which was excavated at Sallèles d'Aude near Narbonne in France (Duday *et al.* 1995) allows us to explain the recording process (*Figure 1*). In this Gallo-Roman potter's workshop of the first century AD, a room measuring seven meters long and four metres wide which was used for drying vessels and amphorae contained several infant

FIGURE 1. The neonate grave, no. 7, discovered in the Roman pottery workshop at Sallèles d'Aude (Aude, France). The synthetic drawing with restitution of the original position of the body has been obtained by the superposition of the three successive drawings of the three excavation levels. Drawing by H. Duday.

burials along its walls. To carry out the excavation of the burial, the diggers worked from platforms supported by metal scaffolding. To remove the soil small vacuum pumps, like those of dentists, were used. Plans were made at a scale of 1:2 or 1:1. Drawings (and photographs) were taken immediately after each stage of clearing. Each bone was numbered and its anatomical orientation and depth were recorded: *Figure 1* shows the plans of three successive excavation layers of the burial and the composite image which was created from these partial views. The infant who died in the perinatal period is prone and the arrangement of the ribs allows us to read the position of the thorax directly. If the person is laid on his back, the first rib lies on the second, the second on the third, and so on. If the person instead is laid on his stomach, the lower ribs rest on the upper. Within the pit an alignment can be seen, with the right foot folded under the right leg.

Contrary to what is often seen in the archaeological literature, the absence of connections does not constitute sufficient proof of the secondary character of the deposit. This absence of connections can be caused by disturbances linked, for example, to the circulation of animals or water, or to collapses of the tomb: it is generally enough for these re-workings, whatever their cause (including human intervention), to happen a long time after deposition when all the ligaments have disappeared. In the infant burial from Sallèles d'Aude previously mentioned (*Figure 1*), a small zone of disturbance caused by an animal's passage was detected nearby the head (hatched zone in drawing 2 and composite image) on the field and resulted in displacement of the bones away form their original position.

BODY DECOMPOSITION IN AN ORIGINAL VOID

An observation on the relationships between the internal and external environments of the corpse can provide us with useful information about the cadaver environment within a primary burial. Archaeothanatology allows clues to be identified related to the presence of a void at the moment of burial. Archaeological observations, for example of traces of wood, nails or differences in fill would probably clarify what type of structure might have caused this void, coffin, burial chamber, wooden framework, etc. However, a void can also be detected in the absence of architectonic elements. There are cases of individuals buried under covers of leather, a thick and rigid material that creates a void around the corpse, seen in the displacement of bones away from the space originally occupied by the body, since the cover decayed long after the corpse did.

A middle Neolithic burial excavated at Villeneuve-Tolosane on the outskirts of Toulouse (southern France) provides a good example of earth grave belonging to the middle *Chasséen*. The individual is lying in a pit on his left side in a crouched position (*Figure 2*), wild boar canines and a vessel are present as offerings. Since the connections that break down more rapidly are still preserved, this is a primary individual deposit. The right ribs have fallen into the thoracic-abdominal cavity left free by the decomposition of the internal organs, while the left ribs have remained in their original position at the bottom of the pit. The vertebral column is slightly displaced: when excavated, it is generally found to be divided in segments (most commonly from two to five) of three or four vertebrae in strict connection. Between those segments, it is possible to observe a shift, rotation or change of angle at one of the inter-vertebral spaces. Save where the body is laid perfectly symmetrically on soft sediment, the vertebral column is subject to forces which exercise a double torsion. As long as ligaments hold, these forces do not generate any movement, but when the linkages break, one of the three types of displacements described above occurs in the space where the ligaments first yield. This movement absorbs the action of the forces on the vertebral column, unless another should happen a little further away at the inter-vertebral space which gives up second, and so on. At this point in front of the vertebral column is the transverse

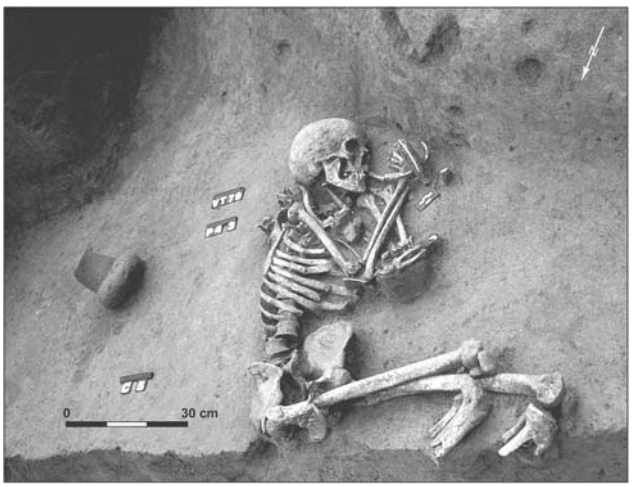

FIGURE 2. Adult burial P4-3 dated to Middle Neolithic (*Chasséen* Culture) at Villeneuve-Tolosane (Haute Garonne, France).

colon, containing faecal matter and bacteria which have been proliferating since the moment of death. These attack tissues and rapidly cause a zone of precocious destruction.

The *Figure 2* further shows that the sacrum has fallen, dragging with it the fourth and fifth lumbar vertebrae (L4 and L5), causing a very clear rupture at the space between the third and fourth vertebrae. When the ligaments of the sacro-iliac joint came apart, the ligaments of L4-L5 and L5-first sacral vertebra (S1) still held, whereas those of L3-L4 had already decayed. Here we see how excavation data may give us important information on the chronology of joint breakdown.

A few cervical and upper thoracic vertebrae have moved away from the space originally occupied by the corpse. There must have been a void since a vertebra obviously cannot move in the earth by itself. Many animal holes have been observed in the sides of the pit and although none have been found by the neck, a burrowing animal might have caused a disturbance. However even if a hole constitutes a void, this is of no archaeological interest because it does not provide us with any relevant information about the original structure of the tomb.

The upper part of the right upper limb is still in connection, while on the left, of the hand only the thumb and little finger remain in place, partly covered by the face. The central part of the carpal and the second, third and fourth metacarpals are connected, but away from the space originally occupied by the body, near the elbow. Since these joints break down more rapidly, the displacement should have taken place soon after deposition. During the initial phase of decomposition, there would have been a void around the corpse.

In conclusion, the displacement of skeletal elements proves the existence of an original void, and the causes of displacement are quite simple to explain. The upper part of the body leans slightly upwards on the side of the pit and, during decay, the cranial skeleton has slipped downwards towards the rib cage. It seems that the skeleton "has no neck" (it is clear that at the same time the cervical and thoracic vertebrae shifted backwards). Moreover part of the left hand has slipped along the forearm bones during decomposition. Putrefaction in fact produces a rather viscous mass that may slide under the force of gravity. Since this void provides information on the structure of the tomb and on the environment within the grave, it is necessary to demonstrate its existence at the initial phase of decomposition. This excludes the possibility of later re-working not related to burial practices.

BODY DECOMPOSITION IN A FILLED SPACE

A corpse ready to be buried still has internal organs and muscles. The "soft parts" which characterise the primary deposit disappear and are replaced by the fill which is found when the burial is excavated. It is important to examine this "transubstantiation", the apparent transformation of flesh into fill, which clearly constitutes the main difference between the time of burial and of excavation. Paradoxically the archaeological literature seems to overlook this process completely. When does the filling of the internal volume of the corpse occur and what are its causes?

Three mechanisms have been identified in the process of filling. The first is the force of gravity: the sediment that has built up above the corpse falls into the spaces left empty by the disappearance of the soft tissue. The second is the increase in volume of clay sediment when wet: decomposition fluids from the corpse soak the sediment and, if clay, this expands to fill the empty spaces. The third is disturbance caused by the actions of small animals, particularly earthworms. While digging tunnels they swallow the soil and later expel it. Such animals particularly seek out humid areas where the sediment is rich in organic matter, like those near burials.

The middle Neolithic burial from Berriac (Aude, southern France)

In this primary burial (*Figure 3*), the adult individual laid prone, the head turned to the left and the right hand holding the right knee. The hand bones are connected and the distal phalanges of the fingers are pushed straight into the ground, against the upper part of the right tibia.

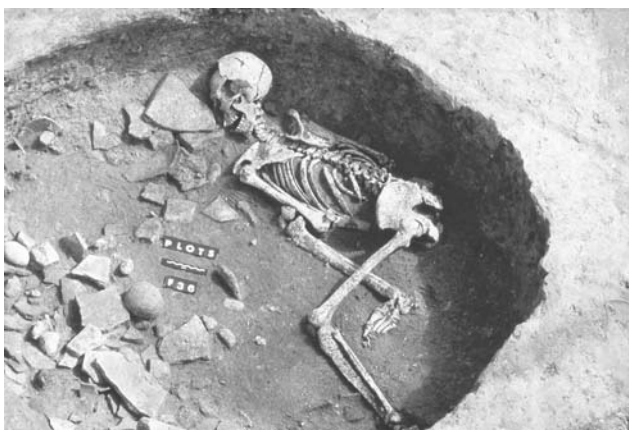

FIGURE 3. Adult burial F36 dated to middle Neolithic (early *Chasséen* phase) at Les Plots at Berriac (Aude, France).

Generally, if a bone is in potential disequilibrium in relation to the space occupied by the body, it will fall into this space when decay of the soft tissue frees it. If this does not happen, something has prevented its fall. This would demonstrate the existence of an obstacle that provides some support. The archaeological observations may allow us to identify that element, which could be: the edge of the pit (not the case here); a border in perishable material in contact with the corpse at some distance from the edge of the pit (but in this burial the effect caused by the obstacle can be observed at a distance from the line that joins the outermost points of the skeleton, the face, the left shoulder and the left foot); the pit fill (the bones are prevented from falling beyond the space occupied by the corpse because this space is already filled). In this case, it is likely that the earth was in contact with the corpse and served as an obstacle to prevent the bones from falling. This would then be a burial in a filled space.

The Pre-Pottery Neolithic A burial H03 from Hatoula (Shepela region, Israel)

This primary burial contained the badly preserved skeleton of an adult individual (*Figure 4*). Nevertheless, it was possible to determine the initial position of the body which was lying on the back in a highly contracted position (Le Mort 1989, 1994). The clavicles were parallel

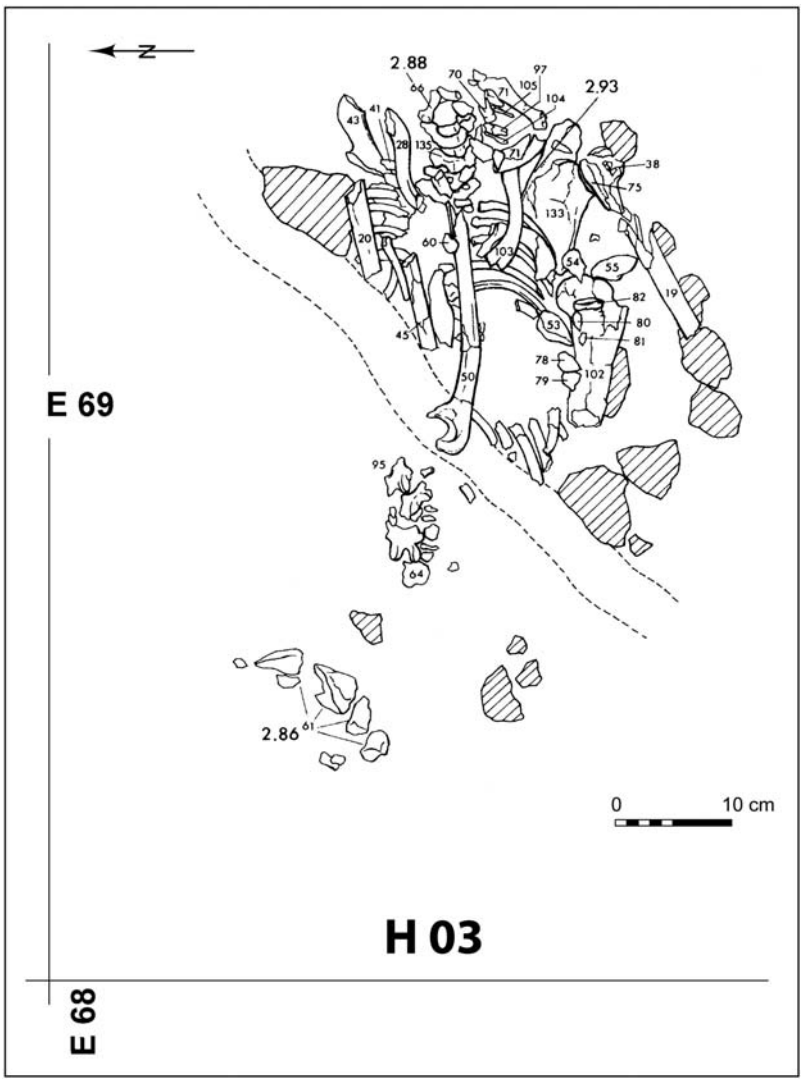

FIGURE 4. Pre-Pottery Neolithic A adult burial H03 from Hatoula (Shepela region, Israel). Drawing by H. Duday.

to the spine, indicating a constriction of the shoulders. The right arm (n°20) was in adduction and the forearm (n°45–50) tightly flexed on it, the elbow resting on the trunk. Regarding the left upper limb, only the position of the arm (n°19), which was in slight abduction, is known. Only small fragments of the pelvis (n°61) were uncovered. Two small fragments of the distal epiphysis of the right femur (n°78–79), the distal end of the left femur (n°54–102), the patellae (n°53–55) and some pieces of the proximal epiphysis of the left tibia (n°80–82) were also found. We can deduce from the position of these fragments that the lower limbs were tightly flexed, the knees resting in front of the lateral side of the left thoracic region. The body is so strongly contracted that it was very likely forced into this position. Most of the preserved bones are still in connection which means that the filling of the pit occurred very quickly after the corpse was put inside.

CHRONOLOGY OF FILLING THE VOLUME FREED BY THE DECAY OF SOFT TISSUES

Delayed filling

Generally, the filling is staggered over time, as the various examples discussed earlier testify, in particular the flattening of the rib cage or the separation at the inter-vertebral spaces. The decay of the thoracic (lungs, heart) and abdominal organs (liver, spleen, stomach, and bowels) frees a space which lasts for a certain time. The bones are subject to various forces (for example gravity, torsion of the vertebral column, etc.) and when freed by the breakdown of ligaments, move under the action of these forces. The sediments later invade the interstitial spaces and block the bones in their new position. They will only be freed by further disturbance, for example excavation.

A little known consequence of the delayed filling of the volume freed by the decay of soft tissue is the closing of the intersegmental angles of the body, i.e. the angles which are created by the different segments of the limbs, like the arm and forearm (elbow) or thigh and leg (knee). For example, in the Chalcolithic burial chamber of Devois de l'Etang in the lower valley of the Rhône (France), a corpse was found crouched in a particularly contracted position (*Figure 5*). Many archaeologists interpret skeletons in this position as evidence for corpses having been buried in bags or tightly bound. This is possible but difficult to prove. When a corpse is buried in the earth, the sediment around it exerts pressure and gradually, as muscles and ligaments progressively decay, closes the intersegmental angles between the bones. Obviously this phenomenon does not occur when the joints are extended or lightly flexed.

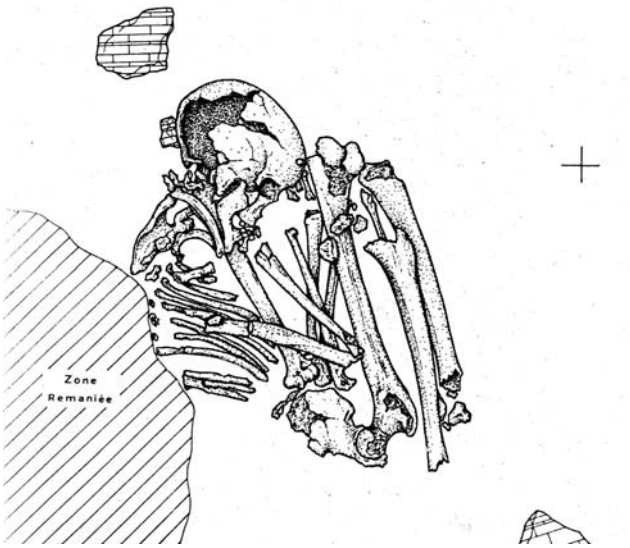

FIGURE 5. Chalcolithic adult burial at Devois de l'Etang (Laudun, Gard, France). The hatched zone indicates altered sediment. Drawing by H. Duday.

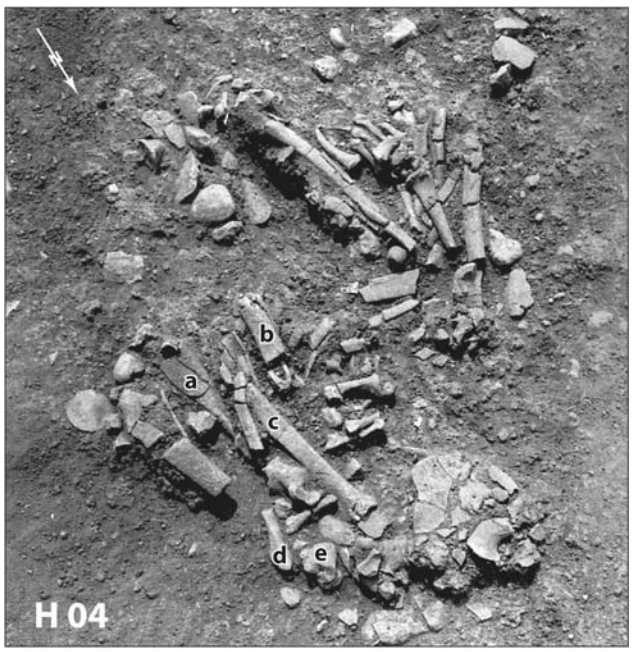

FIGURE 6. Pre-Pottery Neolithic A adult burial H04 from Hatoula (Shepela region, Israel). Photo CFRJ.s.

Another example of this phenomenon is seen in the Pre-Pottery Neolithic A burial H04 from Hatoula (Le Mort 1989, 1994) (*Figure 6*). The skeleton was lying on the face in a flexed position. The lower limbs are tightly flexed on the left side of the trunk. There is an angle of 35 degrees between the right femur (a) and the axis of the trunk and of 20 degrees between the left femur (b) and the axis of the trunk. The left tibia (c), which is seen from behind, is parallel with the right femur and placed against it. This is incompatible with the position of the left femur: the angle between the two bones is less than zero degrees. After the natural defleshing of the right thigh, the left tibia very likely slid near the right femur. The position of the left fibula, which forms an angle of 10 degrees with the left femur, confirms this hypothesis. Its distal epiphysis (d) and some parts of its shaft which rest on the right femur and on the left tibia are preserved. The position of the left talus (e) near the distal epiphysis of the fibula also indicates the initial position of the leg, which was tightly flexed, resting on the right thigh.

Progressive filling

A first example is given by a child primary burial of a fifth century BC found at Coteau de Montigné, in the west of France (*Figure 7*). Two small fragments of the base of the cranium of the child (eight to ten year old at death) have been displaced from the space originally occupied by the corpse, but they cannot be considered proof that decomposition has taken place in a void, since a burrowing animal has made a hole beneath the head. The rib cage has partly retained its original volume.

A difference of four to seven centimetres in depth was measured between the anterior-lateral and posterior extremity of the ribs. Flattening of the pelvis was also not noted. At this age, the pelvis bone comprises three independent bones, ilium, ischium and pubis, linked by cartilage that naturally decays during decomposition of the corpse, when each of these bones would go its own way. In child burials these bones usually fall within the pelvic basin, but in our example they have been found in their original position (the pubic symphysis is still tightly connected). The hands, too, are in their original position. The right hand lies at a level which corresponds to the forward part of the abdomen, where it had been laid when the body was buried. The left hand lies in a place corresponding to the super-lateral part of the left hip, with the first two fingers passing forward and inside the anterior-super iliac crest. Although these bones were potentially in disequilibrium with respect to the internal space of the corpse, they maintained their original position exactly. This occurred because the volume left

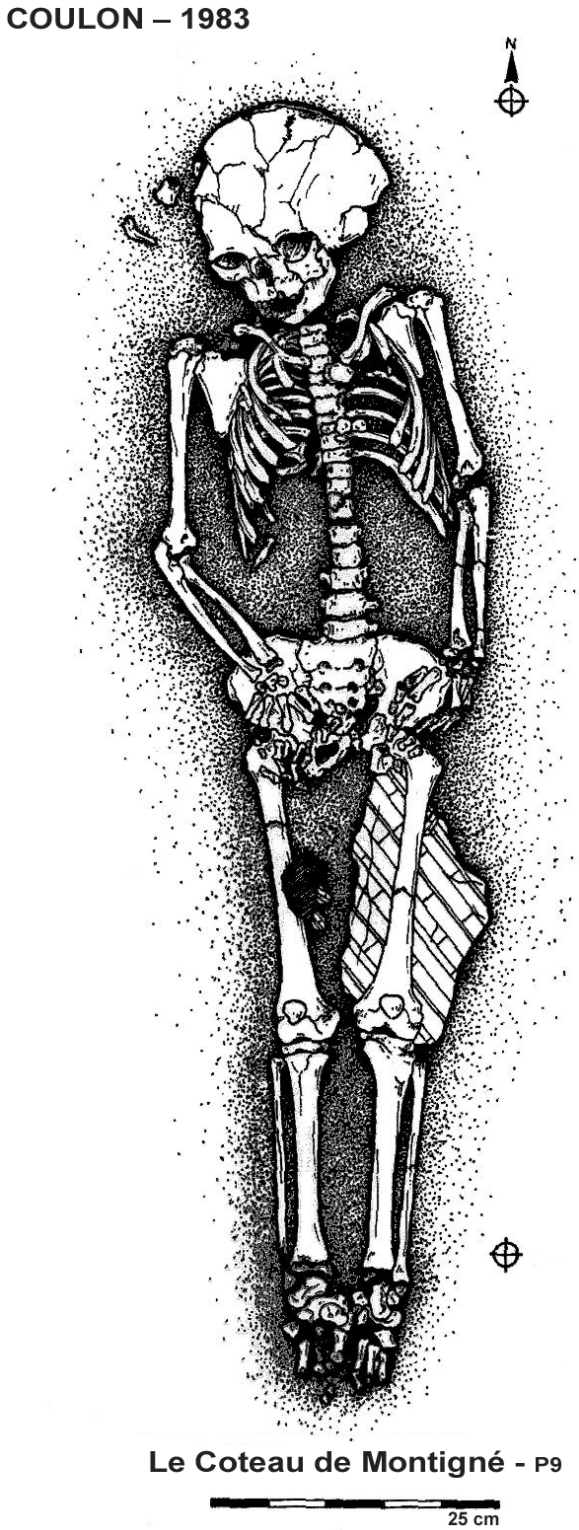

FIGURE 7. Child burial P9 from the fifth century BC at Coteau de Montigné (Coulon, Deux-Sèvres, France). Drawing by H. Duday.

by decay of the soft tissue had been progressively filled with sediment.

A Middle Palaeolithic adult burial at Kebara, on the Mount Carmel in northern Israel, provides another example. It is a primary burial dated to 59,900 ± 3500 BP, which was found in 1983 (Arensburg *et al.* 1985, Tillier *et al.* 1991) and partly damaged by an old sounding made in 1964. The skeletonised body (*Figure 8*) was lying on his back, with the upper limbs crossed on the chest, while from the lower limbs, only the proximal half of the left femur was preserved. The right arm and forearm were still in connection and there was no dissociation of the right sacro-iliac joint, both elements suggesting that the right side of the body was originally lying against the steep north-eastern side of the pit.

Osteological observations help to understand the burial and to characterise the decay environment. Most of the skeletal elements were still in their anatomical position even those related to looser ligamentous connections that disarticulated earlier in body decomposition (e.g. hyoid and hand bones). The body and the large horns of the hyoid bone were linked and indeed found *in situ*. There was no evidence for the

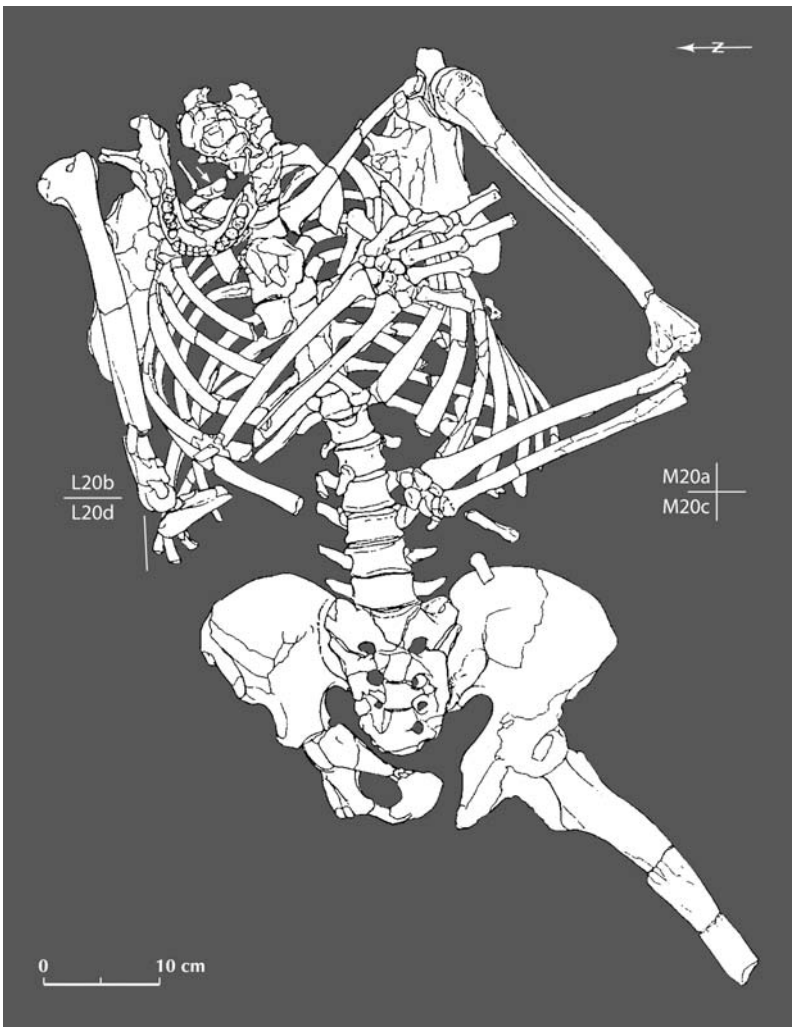

FIGURE 8. Middle Palaeolithic adult burial KMH2 from Kebara (Mount Carmel, Israel). The white arrow indicates the location of the hyoid bone in front of the atlas and between the two mandibular ramus. Drawing by D. Ladiray, after Arensburg *et al.* (1985), modified by G. Devilder.

collapse of the thoracic cavity after decomposition of the soft tissues and the original thoracic volume was practically kept. No major displacements of the disarticulated right hand bones on the chest were noticed. The left hand was lying at the level of the abdomen when the body was buried. The fingers could have been potentially in disequilibrium when the decomposition of the abdominal organs had left a void. Archaeological evidence of a small burrowing animal might also explain the displacement of metacarpals and phalanges. The body decomposition occurred in a filled space in which the volume occupied by the corpse was progressively filled with fine sediment after the decay of soft tissue.

The Kebara 2 burial is also of interest for what has happened to the head (Tillier 2009, Tillier *et al.* 1991). The orientation of the mandible resting on its base, the position of the hyoid bone *in situ*, the complete preservation of the sequence of cervical vertebrae and finally the isolated right upper third molar sitting next to the right lower one, suggested that the cranium was removed following the complete decay of the cranio-cervical ligaments (prone to disarticulate later in decomposition), including those between the atlas and the skull. No evidence of bone fragmentation and disturbance by external agents was detected in the area. Such observations enabled us to postulate the possibility of later human manipulation rather than an animal scavenging signature. Yet it cannot be proved that this manipulation has been planed for a secondary deposit, in the lack of documentation.

CONCLUSIONS

As a biological discipline, archaeothanatology is obliged to establish its foundations at the same time as it contributes to the understanding of funerary complexes. Fieldwork replaces laboratory study and excavation replaces experimentation. Field archaeological observations are essential in the restitution of the original position of the body and in characterisation of the space surrounding the corpse. An element that might have little interest for the understanding of the individual site might be of fundamental importance for the global understanding of the decomposition process and thus for making sense of other funerary deposits.

As we have seen, the objectives and methods of archaeothanatology are fundamentally independent of chronological and cultural divisions. It is through a multiplication of reflections developed on each site that it will refine its analytical methods and widen the scope of its contribution. It is therefore essential to create everywhere a specific category of researchers who are trained in general archaeological methods and who also possess a developed knowledge of human osteology. Only thus can the understanding of ancient burials make progress: archaeothanatology is still defining its methods and developing the precision of its methodology. However, its systematic application to large funerary contexts is bearing fruit in the publication of its first syntheses, so that this newly born science can truly acquire its full historical dimension.

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